Adolescent Sexuality: An Investigation into the Relation Between Sexuality and Self-Concept

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Abstract

The present study explored the connections among adolescents’ sense of self, sexuality, and perceptions of risk. Such an exploration may help educators to further understand why adolescents engage in risk-taking behaviours such as unprotected sex.

The study involved secondary analysis on the data collected from the Youth Lifestyle Choices – Community University Research Alliance 2000 (YLC – CURA) Youth Resilience Questionnaire (YRQ). Participants were 300 male and female students in Grades 9, 11 and OAC. Data analyses involved both descriptive and inferential statistics (correlational and multivariate analysis). Chi-square analyses were performed on the open-ended self-description question. Separate analyses were conducted on gender and age (grade levels).

Correlational analyses revealed that adolescents with a more positive sense of self were more likely to perceive sexual involvement as a relatively high-risk behaviour. Specifically, results found that male adolescents were less likely than females to perceive sex to be risky. Results are discussed in relation to previous research in the area of self-cognitions and risk-taking sexual behaviour. Results are also discussed in terms of educational implications in that the current results may provide the beginnings of a framework for more holistic sexual education programs.
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CHAPTER ONE: THE PROBLEM

Introduction

This study investigated self-reported sexual behaviour and self-concept in adolescence. Specifically, the study explored how Canadian adolescents viewed themselves and their sexual behaviour. Also, of particular interest was whether or not adolescents view particular sexual behaviours as risk-taking behaviours.

Adolescence is a time of tremendous emotional, physical, and sexual change. It is also an important time for self-development -- a process that involves an integration of attitudes, values, and beliefs held by family, peers, and media. Over 100 years ago, William James (1892; as cited in Harter, 1999, p.15) observed that self-formation is the main developmental task during adolescence. In particular, the construction of multiple selves holds special relevance for adolescents across different roles and relationships.

Given this complex task of self-formation, how do adolescents see themselves as sexual beings, and how are their sexual self-perceptions and overall self-esteem influenced by peer relationships and surrounding cultural discourses? Adolescence is a time when engaging in some forms of risk-taking behaviours tends to be normative. Risk-taking behaviours, such as: smoking cigarettes, alcohol use, and sexual exploration (Jessor, 1998). In turn, researchers focus on the consequences of these risk-taking behaviours such as; teenage pregnancy, low academic achievement, lower self-concepts, and an increase in self-harming behaviours. The negative impact of these perceptions can be witnessed in educational curricula, government policies, and even in the behaviour and attitudes of adolescents themselves.
During adolescence, researchers claim that self-regulation and appropriate social behaviours are guided by self-structures (Harter, 1999). Such social behaviours may involve sexual choices including safer sex and or delaying sex. Therefore, research that focuses on how particular aspects of the self relates to sexuality may help to further our knowledge of adolescent well-being and their decisions to make healthy choices regarding sexuality.

Over the last 10 to 20 years, research reveals that adolescent sexual intercourse has increased in frequency and participants are younger in age (Jessor, 1998). In contrast to adults, where it is considered as normal and acceptable behaviour, adolescent sexual behaviour is usually viewed from the lens of “problem behaviours” and “risk behaviours” (Jessor, 1998). It is difficult, if not impossible for today’s youth to avoid the powerful media messages that surround them about sex. Given these messages, researchers have now begun to explore how adolescents learn about sexuality and incorporate them into their developing sexual selves.

In North America, puberty has become similar to a rite of passage into adolescence (Martin, 1996). Researchers have found that boys and girls are affected somewhat differently by this experience (Polce-Lynch, Myers, Kliwer, & Kilmartin, 2001; Martin, 1996; Tolman, 1999; Tolman & Szalacha, 1999). Given the physiological changes combined with the cultural notions of gender and sexuality, many researchers suggest that there exists a difference in personal and sexual agency between the genders (Harter, 1999; Martin, 1996). Martin (1996) refers to personal agency as a sense of entitlement over one’s actions and thoughts, while sexual agency refers to an individual’s ownership over their own sexual thoughts and sexual behaviours.
Martin (1996) found that young boy’s usually experience positive feelings and fondness for their changing bodies during puberty, whereas young girls most often feel anxious and insecure. For example, Martin states that for boys, puberty often makes them look older, therefore they receive more independence and autonomy from parents and society for their actions and accomplishments. This positive recognition promotes boys to be more agentic, particularly in the sexual domain. Boys are socialized to take pleasure and pride in their changing bodies. Specifically, this sexual subjectivity empowers boys to express a sense of self that acts in their bodies.

For young women, the biological changes that usually accompany adolescence are at odds with what our cultural deems attractive. Physiological changes, such as weight gain, conflicts with the North American notion that female beauty is represented by thinness (Striegel-Moore & Cachelin, 1999). Martin (1996) argues that, in contradiction to males, young girls emerge from puberty feeling less agentic and less sexually subjective. Specifically, they enter this new realm of adult female sexuality feeling anxious and ashamed of their new bodies. Girls begin to feel objectified, which may cause them to dislike their bodies, and act on (rather than in) their bodies. Given these contradictory pressures and societal moral issues from the media and other messages from peers, parents, and teachers regarding sexuality, some adolescents may be vulnerable to partake in many risk behaviours such as unprotected sex, multiple partners, etc, and experience low self-esteem.

According to Jessor and others, the construct of personal meaning was created to understand the adolescents’ pattern of risky behaviour and begin to understand that behaviour in relation to the self and the self’s personal relationships (i.e., family, and
friends; Jessor, 1998; Levitt & Selman, 1996). Risk-taking behaviours have both positive and negative consequences. What concerns most educators during this particular transitional period, are the behaviours that put many youth at physical, social, and emotional risk, such as alcohol and substance abuse, as well as unprotected sexual activity.

**Background of the Problem**

Over the past few decades, researchers studying adolescent sexual behaviour, have focused on whether or not adolescents are sexually active (Luster & Small, 1994). According to Statistics Canada (2000), it was found that in the year 1988, approximately 32% of Grade 12 students (ages 17 to 18 years) always used condoms, and 40% indicated that they had had two or more partners in the past year. Furthermore, in 1997, a Canadian survey found that 27.7% of men and 28.1% women reported that they did not use a condom the last time they had sex with a nonregular partner (Statistics Canada, 2000).

Adolescents today are participating in sexual behaviours such as: kissing, touching, oral sex, and intercourse; at younger ages and in greater numbers then a decade ago (Baumeister & Tice, 2001). There seems to be a fair amount of information available on sexual behaviours in Canada, but information tends to be limited to trends of specific behaviours over time. Specifically, trends such as teenage pregnancy and adolescent reported rates of STDs and AIDS.

Several psychosocial developmental changes occur during adolescence. For example, self-development undergoes pivotal changes from early to late adolescence, in
particular, adolescents' psychosocial maturity. Researchers have recently begun to investigate whether adolescent psychosocial maturity is associated with their participation in personal risk behaviours. Previous studies have found that individuals' degree of awareness of personal meaning is critical in understanding their risk behaviours (Adalbjarnardottir, 2002). As cited by Adalbjarnardottir (2002), it is a complex relationship between how adolescents perceive risks and their actual behaviour. How adolescents understand, manage, and make meaning of risky choices can have an important impact on potential developmental problems that they may encounter. Sometimes problems may arise, such as low self-esteem, sexual identity formation, and independent self-directed behaviour (Romeo, 1994). The consequences of poor decision making during this period are of great concern to many parents, educators, and policymakers. In particular, lifestyle choices such as sexual behaviours may have an influence on an adolescent's sense of self. Research shows that those who engage in sexual behaviours are at risk for developing problems such as low self-esteem, poor peer relations, and lower academic achievement (Baumeister & Tice, 2001; Jessor, 1998; Martin, 1996).

It has been found that individuals' overall sense of self is intricately connected to their sense of sexual agency (Laumann, Gagnon, Michael, & Michaels, 1994; as cited in Martin, 1996, p. 9). Martin (1996) suggests that regardless of sexual orientation, sexuality and sexual agency are important to self-construction. That is, individuals' sexuality affects their ability to participate in the world and their sense of self-agency (feeling that they can make things happen; Martin, 1996).
Researchers have established that during adolescence, there is a drop in self-esteem that occurs in a young woman that does not necessarily happen to the same extent in young men (Martin, 1996; Polce-Lynch et al, 2001; Striegel-Moore & Cachelin, 1999). When individuals have high self-esteem, they tend to have a more positive attitude about themselves and in turn, are less likely to participate in risky sexual behaviours (Sprecher & Regan, 1996; as cited in Baumeister & Tice, 2001). Specifically, behaviours such as unprotected sex, which could lead to a sexually transmitted disease or pregnancy. Therefore, it is important for one to experience a link between body/sexuality and agency. Given the lack of research on how sexual behaviours and the self relates, the present study explored the perceptions of self and reported sexual behaviours in adolescence.

Past research has focused mainly on behaviours such as intercourse or contraception use that may put adolescents at risk for pregnancy or sexually transmitted diseases. However, sexuality encompasses a full range of feelings and behaviours, which, for the most part are essential to normative development and the integration of sexuality into one’s sense of self. Thus, limiting research to only the risks of sexual behaviour will not be conducive to trying to understand the full extent of sexuality and/or adolescent development (Jessor, 1998). In 1997, Tschann and Adler (as cited in Jessor, 1998 p. 304) found that sexual identity and self-acceptance might be related to effective contraceptive use. In particular, those girls, who are more sexually accepting, were more likely to communicate with their partners about contraception, which, in turn, demonstrated more effective contraceptive use. Therefore, studies that explore self-
concept and sexual risk behaviours will help promote our understanding of adolescents' inner worlds.

Problem Statement

Adolescence is of great interest and concern to educators, policymakers, developmental researchers, and parents. The biological and socio-psychological changes that occur during this critical time have important ramifications for adolescents' developing sense of sexuality (Travis & White, 2000). It is these changes and their interaction within a cultural context that are of most concern. For example, the biological change, such as puberty, is the greatest physical change an individual will experience since birth. Given the many social, cultural, and psychological mixed messages associated with puberty, researchers need to continue to explore how such messages influence physical and psychological maturity regarding sexuality.

In addition to biological changes, adolescents also undergo cognitive changes, such as: the increased ability to reflect and critically analyze information, as well as formal operational thought (Travis & White, 2000). The development of higher order, complex reasoning permits individuals to think abstractly and to understand multiple perspectives. Such cognitive growth may influence the development of intimacy and may create more complex interpersonal and intrapersonal relationships (Travis & White). In line with previous research, sexuality is a multifaceted component of identity, which includes behavioural, affective, and cognitive elements (Travis & White). Further, it includes the adolescent's sexual behaviour and feelings, as well as the developing sense of oneself as a sexual being.
Sexuality in adults is a vital and integral component of healthy functioning. As previously stated, researchers of adolescents have ignored the obvious developmental trajectory to this crucial aspect of healthy adult functioning (Travis & White, 2000). Current approaches to studying adolescent sexuality tend to focus exclusively on behaviours, primarily sexual intercourse and contraceptive use. From this behaviour-orientated approach, sexuality does not exist prior to first intercourse. As previous researchers explain, one’s sense of sexual self begins at birth and goes on through one’s entire life (Guldner, 1999; Jessor, 1998). It encompasses our thinking, feelings, as well as our behaviours. The development of a sexual sense of self occurs prior to first intercourse as well as long after this event, thus, having the continuing potential for the redefinition of self and the role that sexuality plays. Therefore, it is important to study links between self and perceptions of sexual behaviour in this pivotal time of adolescence.

As many researchers suggest (Dryfoos, 1990; Harter, 1999; Jessor, 1998), adolescence is a particular period in an individual’s life that is filled with multiple transitions. Such life transitions can be inherently defined by an individual’s social context, perceived roles, and memberships in particular social groups (Jessor, 1998). An adolescents sense of self may be a product of cultural discourses (surrounding sexuality, gender relations, and bodies), social interactions (with parents, peers, media, and teachers), and the interconnectedness of each of these. The current study provided adolescents with an opportunity to describe themselves in their own words through the use of both self-report questionnaires and open-ended self-descriptions. Such an
exploration may help to provide educators and researchers with a better understanding to how young people make sense of their lives and selves as sexual beings.

Many researchers have found that there is a significant drop in girls' self-esteem that occurs in adolescence that does not necessarily occur in boys to the same degree (Baumeister & Tice, 2001; Daniluk, 1998; Martin, 1996; Tolman, 1999; Tolman & Szalacha, 1999). According to Martin (1996), this drop in girls' self-esteem is due in large part to the negative discourses surrounding the cultural meanings about gender and female sexuality, in turn, leaving the girls to feel devalued. With respect to the current study, by gaining a better understanding of how low self-esteem relates to adolescent risk-taking, a solution may be found, which would help to make the transition from childhood to adulthood a little bit easier.

It has been suggested by some that to decrease the significant drop in girls' self-esteem, beginning to change the cultural discourses surrounding sexuality and gender is a good place to start (Martin, 1996). In particular, changes need to be made to our sex education curricula and promoting gender education that focuses on healthy life choices. Such a curriculum may lead to an improved self-concept and may help adolescents decide to choose healthy lifestyle behaviours over more harmful risk behaviours such as unprotected sex.

Definition of Terms

Gender: The term gender refers to the psychological or behavioural characteristics associated with males and females (Zucker, 2001, p. 101).
Resilience: The term resilience refers to the ability to be aware of the difficult realities in an individual’s life, combined with his/her ability to conquer obstacles and to achieve goals despite negative circumstances, which were evocative of extreme sadness (Gormezy; as cited in Ponton, 1997, p. 261).

Risk Behaviours: Risk behaviours are those behaviours that can, either directly or indirectly, compromise the well-being, the health, and even the life course of young adolescents (Jessor, 1998, p. 1).

Self-Concept (Cognitive): The term self-concept refers to the evaluative judgements or attributes within discrete domains such as cognitive competence, social competence, physical appearance (Harter, 1999, p. 5).

Self-Representations/Descriptions: In this study, self-concepts or representations are operationalized by how one describes oneself. Namely, characteristics or attributes of the self that are consciously acknowledged by the individual through language (Harter, 1999).

Self-esteem (Affective): The term self-esteem is defined as the overall evaluation of one’s worth or value as a person (Harter, 1999, p. 5). In this study, the scores on the Rosenberg Scale operationalize self-esteem. Moreover, it is important to understand that this is not a summary statement of self-evaluations across different domains, but rather a general evaluation tapped by its own set of items that explicitly ask about one’s perceived worth as a person (Harter, 1999).

Self-System: The self-system refers to an individuals’ self-views, emotions, and motivations that take shape and form within a framework provided by cultural values,
ideals, structures, and practices (Cross & Madson, 1997, p. 6). The self-system includes both the self-concept (cognitive) and self-esteem (affective).

*Sex:* Refers to "attributes that biologically characterize an individual as male or female (Zucker, 2001, p. 101).

*Sexual Agency:* Sexual agency refers to a sense of authorship over an individual’s own sexual thoughts and actions (Martin, 1996, p. 6).

*Sexuality:* An awareness that we are sexual beings, able to express ourselves through our bodies. It encompasses our thinking, our feeling, and our behaviour. It is the embodiment of the self as male or female, and is constructed by complex meanings across the life span (Guldner, 1999, p. 3).

*Sexualization:* Individuals’ sense of sexual self and their developmental growth as male or female. This process begins at birth and goes on through one’s life. One of the individual’s major source of sexualization is the family, however, this is always interfaced by a number of other social systems, which make the individuals in the context of the family (Guldner, 1999, p. 5).

**Purpose and Objectives**

The purpose of this research project was to explore and describe adolescents’ perceptions of self and risk-taking behaviours. In particular, this study explored adolescent self-concepts and sexual behaviours as risk-taking behaviours. Such an exploration may help educators to further understand why adolescents engage in risk-taking behaviours such as unprotected sex.
Although this study does not directly address school curricula, the results could provide a framework, or provide some evidence for further work to be done on creating a curriculum for adolescents that aims to integrate self-knowledge/understanding with sexual/health conceptual knowledge. Moreover, the results may promote curriculum development in the area of health and physical education (specifically sexuality and body/self-image issues), as well as provide some suggestions for teachers to create strategies that can be used in the classroom. Finally, the results of this study may also benefit the adolescent learners themselves, because the Community University Research Alliance (CURA) Youth Resilience Questionnaire provides them with an opportunity to voice their thoughts on important sexual issues that are usually silenced in the explicit curriculum.

This study aims to uncover some aspects of the “hidden” curriculum that usually occur within the social context of the classroom. The “hidden” curriculum refers to the shadowy, ill-defined messages and meanings that are embedded in educational experiences (Sambell & McDowell, 1998). It is usually expressed in terms of the distinction between “what is meant to happen” (the explicit curriculum) and what teachers and learners actually do and experience (Sambell & McDowell, p. 392). The impact of school climate and culture frequently is overlooked, and in order to have a more complete representation of our school environment, researchers, teachers, and administrators need to be more cognizant of this powerful influence (Wren, 1999).
Research Questions

To explore and describe the relations between self-esteem and sexual risk-taking behaviours in adolescent girls and boys, this study posed the following questions:

1. What are the relations among self-esteem, adolescent sexual behaviour, and perceptions of sexual behaviour as risk-taking? How does self-esteem relate to adolescents' reported sexual risk behaviours? Will the relations between these constructs differ according to gender?

2. Will adolescent self-esteem and reported sexual behaviour differ according to age and gender?

3. How are the self-views/descriptions of adolescents related to their self-esteem? Will the content of self-descriptions differ according to age and gender?

Rationale and Educational Importance

Over the past few decades, there has been an increase in research on adolescents' self-perceptions and the risk behaviours that they have been engaging in. However, most of these studies investigate these constructs separately. That is, many studies have focused either on self-esteem or risk behaviours. However, very few studies explore the links between self-perceptions and risk behaviours, in adolescent girls and boys. The few that exist examine psychological characteristics such as maturity levels and risk behaviours concerning alcohol use (Adalbjarnardottir, 2002). This research study will thus explore the links between perceptions of self and reported sexual behaviour.

Recent research explores adolescent views and opinions about themselves (Tolamn, 1999; Tolman & Szalacha, 1999). This research study will add to the discourse
on adolescent development by exploring the self-perceptions and attitudes towards sexual behaviours in Canadian youth.

Although sex education is a mandatory part of the Ontario Curriculum (see Curriculum Guidelines in chapter 2), sex education in schools has generally been an extremely debated issue (Rosoff, 1989, p. 52). One position states that the public schools should have no role at all in educating children about sex-related matters. This position views the physical aspects of sex only, and fails to comprehend that the psychosocial character of sexuality leads to misunderstanding of the focus and meaning of sex education. A contrasting position suggests that school involvement in sex education not only is proper, but also is critical for adolescents to make healthy lifestyle choices (Rosoff, 1989).

According to the Ontario Curriculum guidelines, sense of self is to be covered sometime in Grade 9 or 10, but doesn’t address specifically what should be taught, therefore leaving the interpretation up to individual teachers (Ministry of Education, 2001). Similarly, the curriculum addresses sexual behaviours and attitudes implicitly. Although the curriculum addresses knowledge and skills that adolescents need to make informed healthy decisions, it doesn’t give specific details about how it should be taught (Ministry of Education, 2001). This study is intended to provide evidence for the need for educators to provide a forum that is conducive to students reflecting and discussing the relation between their own self-development, their sexuality and educational experiences (Bosacki, 2001).

The majority of sex education courses are taught from a biological or physiological perspective (Kirby, 1985). However, human sexual behaviour permeates
many other aspects of adolescent life, including social and emotional lives. Accordingly, to help students learn to make healthy life decisions, sex education needs to go beyond one-dimensional curriculum and include all areas of development (Kirby, 1985). By exploring the relation between self-concept and sexual risk behaviours, this study aims to provide empirical evidence for the development of a holistic sexuality education program that promotes the integration of sex and self-knowledge.

Outline of the Remainder of the Document

The remainder of this research study will be outlined as follows:

Chapter 2: Review of the Literature, outlines the related literature that is critical to understanding the theoretical and empirical basis of this study. Specifically, it addresses topics such as the self-system in adolescence, sexual risk behaviours, and educational/curricular implications, and ends with a description of the present study.

Chapter 3: Methodology and Procedures, outlines the method of the study. Specifically, this chapter will explain in detail the instrumentation/data collection, selection of participants, procedures/data collection, methodological assumptions and limitations, and data analysis.

Chapter 4: Findings, presents the results of the research study and interpretation of the findings. Finally, the focus of Chapter 5: Discussion, Conclusions, and Implications, discusses the meanings of significant findings of the study in light of the related literature, as well as discussing conclusions and implications for research and educational practice.
CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

This chapter outlines the related literature that is critical to understanding the self and sexual risk behaviours in adolescence. The literature reviewed addresses topics such as self-concept and self-esteem in adolescence, sexuality and risk-taking behaviours, sexual risk behaviours, and educational/curricular implications. Finally, the chapter ends by addressing the present research questions and their corresponding hypotheses.

The Self-System in Adolescence

Adolescence is a particularly important time when young individuals try to get sense of who they are and what makes them different from everyone else. An adolescent’s developing sense of self and how they are unique is a very motivating force in their life during this period (Santrock, 1990).

According to Erikson (1968; as cited in Santrock, 1990), adolescents are bombarded with an overwhelming number of lifestyle choices. To reach a stable sense of self, some adolescents may choose to experiment with multiple identities and possible selves. Part of this experimentation is due to the fact that some adolescents allow their self-concepts to be influenced by the perceptions of others (Brinthaupt & Lipka, 2002). Researchers Brinthaupt and Lipka have found that the experimentation with different selves simultaneously occurs with physical changes that take place during puberty. For example, at home the adolescent may have an identity of a silent, rebellious daughter, or a supportive and understanding sister. While at school she may be a hardworking pupil,
and in front of her friends, she may be an outgoing best friend, the group comic, or part of the popular crowd. Many self-concept researchers (Harter, 1999) have claimed that the self consists of two distinct but intimately intertwined aspects of self: the I-self (self as a subject) and the Me-self (self as an object). In 1890, William James (as cited in Harter, 1999, p. 6) defined the I-self as "the actor or knower," whereas the Me-self was the object of one's knowledge. According to James, the components of the I-self include: (1) self-awareness, an appreciation for one's internal states, needs, thoughts, and emotions; (2) self-agency, the sense of the authorship over one's thoughts and actions; (3) self-continuity, the sense that one remains the same person over time; and (4) self-coherence, a stable sense of self as a single, coherent, bounded entity. Components of the Me-self include the "material me," the "social me," and the "spiritual me" (Harter, 1999, p. 6).

On the one hand, the self can be defined as a more global, overall sense of being (Finkenauer, Engels, Meeus, & Oosterwegel, 2002). Particularly, the self is composed of self-knowledge and self-esteem. The (relatively) stable beliefs and ideas that individuals hold about themselves across different situations and contexts is commonly referred to as self-knowledge (Finkenauer et al., 2002). Self-esteem refers to the way that individuals evaluate and feel about themselves and is a learned phenomenon involving a lifelong process. It is one's self-knowledge that is the basis for an individual's self-worth and self-respect, in turn making up an individual's self-esteem (Connelly, 1998; Finkenauer et al., 2002). Because self-esteem affects many aspects of an individual's life, factors influencing self-esteem are interwoven with developmental tasks specific to adolescence. For example, school performance and the opinions of significant others are both integral
to an adolescent’s sense of self (Rosenberg, 1989; as cited in Conelly, 1998, p. 197). Therefore, when focusing on the developmental stage of adolescence, researchers have found that an individual’s self-structure serves to shape personal goals and provide self-guides that aid in appropriate social behaviours and self-regulation (Harter, 1999).

Adolescents’ self and identity is a topic that has been given a considerable amount of attention. The self-system can be viewed as having both an evaluative/affective component (self-esteem) and a cognitive construction (self-concept). For example, the cognitive aspect of the self-system refers to the self-descriptions of the adolescent, in particular, how the individual adolescents’ see themselves (i.e., “I am blonde, short, and in Grade 11”; Harter 1999). The affective/evaluative component of the self-system contains an aspect of evaluation or judgement (i.e., “I am [happy] being myself”) and is where an individual’s emotions reside. Such value-judgements are linked to positive or negative feelings directed toward oneself (Harter, 1999).

Definitional issues surrounding the self-concept include the distinction between global and domain-specific personal evaluations. With regard to terminology, global self-evaluations have typically been referred to as “self-esteem.” Global self-evaluations are evaluations that focus on the overall evaluation of one’s worth or value as an individual. For example, “I am a worthwhile person” (Harter, 1999). On the other hand, domain-specific evaluations are those that reflect the individual’s adequacy across particular domains, for instance, “I am smart” or “I am liked by my friends” (Harter, 1999). With regard to this present study, this is an important distinguishing characteristic when analyzing the participants’ responses to the open-ended question “how would you describe yourself”? These responses help to provide a more complete
portrait of the dimensions that are most salient to the adolescents' self-representations and their behaviours.

In the past, there has been a discrepancy between whether or not it is crucial to distinguish between global self-evaluations or on domain-specific self-evaluations (Harter, 1997). As Harter (1997) suggests, by distinguishing between the two evaluations, it is possible to construct a profile of self-evaluations across different domains for individuals as well as for particular subgroups. Furthermore, it also allows for the researcher to address the issue of whether evaluations in some domains are more predictive of global self-esteem than are others. This study investigates both global self-evaluations and specific dimensions in the self-descriptions (Harter, 1997).

During adolescence, the teenager begins to differentiate his/her attributes into possible roles/selves. At times, this multiplicity can produce concern and confusion over which is the real self (Harter, 1999). For instance, one's overall sense of worth as a person has been shown to be heavily influenced by individuals' perceptions of their own physical appearance in relation to their subjective comparison to current cultural standards of appearance (Harter, 1999). Individuals who feel that they have attained what our culture deems attractive, are more likely to experience a relatively more positive sense of self. Conversely, teens that fall short of the cultural standards will suffer from lower self-esteem (Baumeister & Tice, 2001; Finkenauer et al., 2002; Harter, 1999; Jessor, 1998; Martin, 1996; Wiederman & Hurst, 1998).

Adolescents subjectively compare and evaluate their bodies against culturally and socially accepted standards. Therefore, it is understandable that their sense of self will be inextricably intertwined with their bodies (Baumeister, 1993; Finkenauer et al., 2002).
Previous research suggests that adolescent girls generally have a more negative sense of self than boys (Baumeister, 1993; Finkenauer et al., 2002; Harter, 1999; Martin, 1996). One reason cited for this difference is due to the fact that the biological changes that boys experience move closer towards the cultural ideal (e.g., broad shoulders, narrow hips) than for girls (e.g., weight gain, wider hips). Specifically, at puberty, a young girl’s body-fat will increase about 27% (Finkenauer et al., 2002). In turn, young girls are faced with the struggle to challenge the biological changes that displace them further from their physical ideal.

Adolescence is a time when the importance of social relations with peers increases, while family participation play a less significant role. Previous research has shown that a more positive sense of self is associated with being popular and accepted by one’s peers (Finkenauer et al., 2002; Harter, 1993). Social recognition and approval can have a significant impact on how teens perceive themselves. Cooley (1902; as cited in Harter, 1999, p. 182) postulated that self-esteem was a social construction. His looking-glass-self formulation suggests that social support, in the form of positive regard from significant others, is a critical determinant of self-esteem. Across numerous studies, it was found that adolescents who perceived that they had low levels of support, reported the lowest levels of self-esteem, whereas, teens receiving the most support reported the highest levels of self-worth (Harter, 1999).

As stated earlier, adolescence is a time when young people strive to create their own identity. Markus and Kitayama (1991; as cited in Cross & Madson, 1997, p. 5) have distinguished two distinct self-structures. A interdependent self-construal, states that, to a large degree, self-definition is based on an individual’s relationships and group
memberships as well as the importance of one’s pursuit of harmony with others. In contrast, an independent self-construal, which states that self-definition is founded on an individual’s unique abilities or attributes that help to distinguish him or herself from others (Harter, 1999). In general, past researchers found that men are more prone to construct and maintain an independent self-construal, whereas women construct and maintain an interdependent self-construal (Cross & Madson, 1997). These findings are consistent with the social and cultural discourses that promote independence and autonomy in men, and interdependence and relatedness in women (Cross & Madson). Therefore, given these findings, this study explores gender differences in self-constructs and seeks to uncover how they relate to adolescent sexual risk behaviours.

The primary goals for individuals with an independent self-construal are to maintain a sense of autonomy and to be true to one’s goals. In turn, their self-esteem is enhanced when the individuals fulfill their goals. In contrast, for individuals with an interdependent self-construal, their primary goals are to develop self-defining relationships and to maintain a connectedness to others. For example, individuals’ self-esteem will be reflective of their behaviours and skills that allow for closeness and harmony to others, as well as, from the vicarious participation in the joys and successes of those around them (Cross & Madson, 1997). Regarding adolescence, teenagers are often expected to adhere to certain cultural norms regarding appropriate demeanours and behaviours. Therefore, in line with Cross & Madson (1997), through the use of self-description questions, this current study seeks to explore whether or not individuals make reference to their self, family, friends, teachers, or others when asked to describe
themselves. That is, will adolescents’ self-descriptions reflect independence or interdependence?

To understand the connection between self and sexual development, one must try to understand the role that gender plays in determining societal norms for boys and girls. It is unfortunate, but still commonly expressed, that if you are an adolescent male, there is an expectation and acceptance to being openly sexual. In contrast, females who openly pursue their sexual interests or desires run the risk of being negatively labeled by their peers (Orenstein, 1994; as cited in Jessor, 1998, p. 296). As stated earlier, one of the primary challenges during adolescence is self-definition (Erikson, 1986; as cited in Santrock, 1990). Teens tend to seek out what makes them unique as well as seeking out people and situations that they believe are “like them.” Adolescents spend anywhere from one third to as much as one half of their waking hours at school. Thus the peer group and group affiliations have been documented as an important source of sexual values, prescriptions, and social comparisons (Steele, 1999).

Stereotypic categorizations of adolescents; such as girls are quiet, sensitive, and nurturing, whereas boys are aggressive, strong-minded, and go-getters, further support the persistence in society of gender-based social constraints on sexual behaviour. These constraints affect how these individuals begin to view themselves and the effects that these self-descriptions have on their self-concepts. Researchers have noted that adolescence is a time when gendered norms may become intensified, especially for young girls because the gender norms for women are more unattainable, more enforced, and therefore more oppressive than for young men (Maccoby, 1998; as cited in Bosacki, 2001, p. 209). These stereotyped patterns of behaviours not only are reflected on their
developing sense of self, but also their developing sexual selves (Bosacki, 2001; Cross & Madson, 1997). Evidence of the different ways that males and females are socialized is expressed in the sexual scripts that they follow. Confusion and problems for their developing sense of self usually arise when adolescents begin to experience discrepancies between their socially prescribed roles and their individually desired self (Bosacki, 2001). This form of internal corrosion, as a result of cultural norms and discourses, affect how adolescents think and feel about their developing bodies, sexuality, and gender roles, which in turn, affects how teens interact with their parents, peers, and teachers and ultimately how they develop a sense of self (Bosacki, 2001).

Breakwell (1986), according to the Identity Process Theory, argues that an important factor in determining sexual risk-taking is an individual’s sexual self-concept, which may be of particular importance to adolescents during this time of identity restructuring and revision. For example, in many cultures, to be feminine and sexual is a contradiction in terms. The social definitions of masculinity have important implications for what are deemed sexual in most cultures. In contrast, for females, femininity is more equivocally linked to sexuality (Breakwell & Millward, 1997). Furthermore, Breakwell and Millward suggest that an individual identity development is a social representation that is a shared construction of reality. Therefore, women who adhere to a more traditional “feminine” role are more likely to accept and identify with a social representation of sexuality that is equated with the traditional female role (i.e., sexually passive and disinterested).
Sexual Risk Behaviours

The potential vulnerability for adolescents to contract HIV or a sexually transmitted disease, along with the potential for an unwanted pregnancy, have led to the focus on young people’s sexual behaviour and their attitudes towards safe sex practices (Buzwell & Rosenthal, 1996). Canadian national data on adolescent sexual behaviours have been found to be extremely limited (Maticka-Tyndale, Barrett, & McKay, 2000). Researchers Maticka-Tyndale and colleagues discovered that Canada has not had a comprehensive national survey on adolescent sexual and reproductive health behaviours since 1988, when Canada launched the Canada Youth and AIDS Study (CYAS).

Although this study was very influential and widely cited, the limited sample size and non-comprehensive survey questions leaves Canada with relatively few sources to draw national adolescent data on sexual behaviours from (Maticka-Tyndale et al., 2000).

Within the United States, of the 12 million reported cases of sexually transmitted diseases (STDs) per year, adolescents account for one-quarter of those infected (Luster & Small, 1994). Furthermore, it has been established that many youth have not only experienced sexual intercourse, but also have had many sexual partners by the time they graduate from high school (Herold, 1984; Luster & Small, 1994). A Youth Risk Behaviour Survey conducted in 1990 reported that “among males, 20.6% of 10th graders and 38.5% of 12th graders had four or more partners. Fewer females had multiple partners; 9.3% and 17.0% of 10th and 12th graders, respectively, had four or more partners” (Luster & Small, 1994, p. 623).

Canadian statistics reveal that between 12% and 23% of students in their early high school years report having had at least one sexual experience involving vaginal or
anal penetration. Researchers estimate that that rate jumps to between 47% and 69% of students in their later years of high school (Health Canada, 1999). According to a national study conducted in 1990, it was found that only 27% of Niagara adolescents, 15 to 19 years of age, reported that they used condoms “often” or “always” (Statistics Canada, 1996). In addition, another study revealed that 17% of sexually active girls, between the ages of 12 and 14 did not use birth control of any type; 14% used the pill in combination with condoms, while the remaining 69% of girls reported having sex with a condom.

Given these statistics, many researchers are concerned with the factors associated with irregular or no contraceptive use. Canadian researchers have found that being female, living in a large urban centre, as well as having multiple partners, compounds the risks of unprotected sex (Health Canada, 1999). Luster and Small (1994) found that the factors that were associated with risky contraceptive behaviour are as follows. For females, they found that low Grade Point Average (GPA), frequent alcohol consumption, and low levels of parental monitoring and communication about birth control were the primary factors. For males, it was found that sexual risk-taking was associated with low GPA, frequent alcohol consumption, suicidal ideations, low levels of parental support, and a history of sexual abuse.

A certain amount of risk behaviours have been described as a normal part of the developmental process of “growing up” (Shapiro, Siegel, Scovill, & Hays, 1998). Jessar (1991; as cited in Shapiro et al., 1998, p. 145) argues that adolescent risk-taking can be instrumental in attaining goals, as well as being purposeful and functional. Although, most of the consequences of risky behaviour are negative, Shedler & Block (1990; as
cited in Shapiro et al., 1998, p. 145) argue that, this normative occurrence of risk-taking has been associated with some positive psychological characteristics. Specifically, thier study grouped subjects into one of three categories: abstainers, experimenters, and frequent risk-takers. Shedler & Block found that the three groups of subjects varied in concurrent psychological characteristics. For example, the abstainers were found to be more tense, over-controlled, socially isolated, and had poor social skills. Frequent users were shown to be troubled, withdrawn, unhappy, and engaged in overtly antisocial behaviours. However, the experimenters were characterized as being more socially competent, energetic, happy, as well as having higher levels of self-satisfaction. These results are contrary to the widely held belief that adolescents’ risk-taking is “mindless,” “aimless,” or mere “sensation seeking” (Shedler & Block, 1990; as cited in Shapiro et al., 1998, p. 145).

The research literature is replete with studies that have found that adolescents rarely engage in one or two problem behaviours (Gonzalez et al., 1994; Jessor, 1998; Shapiro et al., 1998). Much of this work reveals the co-occurrence of adolescent problematic behaviours such as: drinking, smoking, marijuana use, delinquent behaviours, and premarital sexual intercourse (Shapiro et al., 1998). In a study conducted by Gillmore, Butler, Lohr, and Gilchirst (1992; as cited in Luster & Small, 1994, p. 624), significant relations were found between sexual risk-taking behaviour and substance use. In particular, sexual risk-taking was correlated with such problems as cigarette smoking, use of alcohol and other drugs, and academic failure.

However, despite a large volume of research, subsequent recent work highlights the complexity of problem behaviour activity among adolescents (Willoughby, Chalmers,
& Busseri, submitted). Results reveal that for any given behaviour, the majority of respondents did not report problematic levels. However, engagement in multiple “high” level behaviours was reported in 37% of adolescents studied (Willoughby et al.). Researchers concluded that in light of the existing evidence dealing with the co-occurrence of problematic behaviours, making the general statements to the effect that adolescents who are engaging in one type of problem behaviour are also engaging in several other risky behaviours is too strong. Closer examination of the previous literature reveals that most studies fail to distinguish between nonproblematic and problematic levels of each risky behaviour. Further, they only examine a limited number of problem behaviours, and/or do not report or examine the actual amount of overlap among problematic levels of each behaviour (Willoughby et al.).

For many youth, participating in a single risk behaviour may not be that detrimental to their health (Jessor, 1998). However, as previously stated, many youth participate in more than one risk behaviour, such as, risky sexual engagement, smoking, and/or participating in drug use. Their reasoning for doing so is often multifaceted. Health-related behaviours in adolescence may have both immediate and long term consequences, therefore, addressing not only the development of risk behaviours, but also trying to understand how adolescents construct their sense of self will bring a better understanding of the youth culture.

Researchers for many years have tried to understand what works and what doesn’t work in reducing teen sexual risk-taking (Kirby, 2001). In trying to identify risks and protective factors, researchers revealed that family dynamics and attachment play a role. Specifically, it was found that if adolescents feel connected to their parents, then they are
less likely to engage in sexual risk-taking (Blake, Simkin, Ledsky, Perkins & Calabrese, 2001; Kirby, 2001). The positive effects of parent-child communications have demonstrated that teens who participate with parents in conversations about sexuality education and contraception use are more likely to postpone engaging in sexual activity (Blake et al., 2001).

Typically, adolescents’ beliefs and norms are learned mostly in part from the beliefs and norms expressed by others as well as from their own sexual behaviours and consequences (Kirby, 2001). Working within this simple framework, researchers have found that when a teen believes that their peers are engaging in sex or have permissive attitudes about sex and sexuality, then they themselves are more likely to engage in sex, have sex more often, as well as have multiple sex partners (Kirby, 2001). With respect to condom use and commitment to contraception, Kirby found that in an investigation of previous studies, several indicated that if adolescents believe that their peers have a positive attitude towards condom uses and are actually using them, then they themselves will also be more likely to use condoms. Further, it was found that if adolescents’ sexual partners either support condom use or contraceptive use, then they are more likely to practice either condom use or contraceptive use.

Many adolescents hold on to the illusion that “it could never happen to me.” According to past research, they believe that bad things happen to other people, and someone who adheres to this unrealistic optimism, may overestimate their own control and may make unhealthy chances in sexual behaviour that could lead to an STD or an unwanted pregnancy (Baumeister & Tice, 2001). Research suggests that teens who apply
this unrealistic pattern of personal optimism are less likely to use contraception and will have multiple sex partners (Baumeister & Tice).

How does sexual risk-taking behaviour relate to self-esteem? One of the most established effects of self-esteem is that people with low self-esteem tend to be more vulnerable to external influence (Baumeister & Tice, 2001). Therefore, it was concluded that this vulnerability makes individuals more susceptible to advice, persuasion, and other forms of influence. This current study will elaborate on these findings by exploring how teens view themselves and how those self-perceptions impact their choice to engage in sexual behaviours.

Sexuality, Self, and Risk-Taking Behaviours

Humans are sexual beings, and our sexuality is an inseparable part of our self-development. During adolescence, some teens may become ambivalent or confused about their own sexuality and sense of self, their relations with family and peers, or they may become unsure of how they feel or relate to the opposite sex. The consequences of poor decision making are of great concern. Unsafe sexual behaviours may lead to infertility, unplanned pregnancy, AIDS or other sexually transmitted diseases. Research has shown that most individuals will have had sexual intercourse by 17-18 years of age (Herold, 1984; Jessor, 1998).

Regarding Canadian adolescents, a recent study reported that girls aged 15 to 19 years had the highest rate of reported chlamydia and gonorrhea infections (Health Canada, 2001). These rates are 5.7 times higher than the national rate for all Canadians. In addition, it was also found that there were a total of 21,587 live births to mothers 15-
19 years of age (Health Canada). Sexual behaviours often begin much earlier than intercourse, therefore, forming a sexual identity and navigating the emotional and physical challenges of sexual behaviour have clearly become part of a series of events that occur during the transitional periods of adolescence (Jessor, 1998, p. 271).

Jessor (1998) claims that sexuality is no longer assigned to adulthood by cultural definition and is clearly part of adolescent behaviour. Therefore, Jessor suggests that a certain amount of adolescent risk-taking is expected during this transitional period. However, increases in both teen pregnancy rates and sexually transmitted diseases, along with the lowering of the age of first intercourse, have led to the continued reluctance to accept sexual behaviour in adolescents.

Not only are their physical consequences of poor sexual decision making, such as unwanted pregnancies or sexually transmitted diseases, but adolescents are also particularly vulnerable to the emotional consequences, such as regret, guilt, and loss of self-esteem. Previous research reinforces how important self-agency and a positive sense of self are in order to create adolescent sexual subjectivity (Bosacki, 2001). Therefore, given the potential for negative consequences resulting from risk behaviours, it is important to educate adolescents that they have the power to decide whether or not they want to accept or dismiss societal messages (Bosacki).

To help understand the role of the self-concept in adolescent sexual risk-taking behaviours, Levitt and Selman (1996) developed the concept of personal meaning. Personal meaning refers to the lens through which an individual integrates and focuses on the knowledge of sexual risk and risk management skills to have an effect on his/her behaviour. In other words, the key to preventing negative life outcomes is a growing
awareness of the integrated nature of his or her risk-taking behaviours within the complex web of self-concept and social relationships (Levitt & Selman, 1996).

The conceptual model of personal meaning has four hierarchical levels that describe the potential for four social and self-awareness dimensions. The four dimensions are unique in that each helps to define a lens through which personal meaning is analyzed. Thus, it was found that in order for the individual to contextualize the risk behaviour, he/she must first take responsibility for his/her own actions, recognize a uniqueness of the self, self-reflect on their actions, and recognize his/her personal need associated with the risk behaviour (Levitt & Selman, 1996).

To build on Levitt and Selman’s (1996) hierarchical levels of personal meaning, Adalbjarnardottir’s (2002) Psychosocial Developmental Framework adheres to the belief that to fully understand adolescents’ understanding of risks to their health, it is important for the youth to coordinate the perspectives of both self (the individual) with others (society). Essentially, the psychosocial developmental framework consists of three closely related constructs; interpersonal understanding, personal meaning, and interpersonal skills. Interpersonal understanding refers to how the adolescent understands the facts about the nature of risks. Personal meaning refers to how individuals make meaning of the risks that they choose to participate in, in relation to the quality of their personal relationships. Lastly, interpersonal skills refer to the collective strategies that the adolescent has available to them to manage risks (in both real-life and hypothetical situations; Adalbjarnardottir, 2002).

The question remains: Why do some adolescents choose not to participate in positive sexual behaviours, whereas others choose to? For some individuals the
knowledge or input about risk is undifferentiated from the meaning of risk due to variations and limitations on their capacity for agency, reflection, personalization, and/or contextualization (Levitt & Selman, 1996). In addition, it has been suggested that adolescents seeking out risks, may do so because it permits them to: (1) take control of their lives; (2) express opposition to adult authority and conventional society; (3) deal with anxiety, frustration, inadequacy, and failure; (4) gain admission to peer groups and demonstrate identification with a youth subculture; (5) confirm personal identity; and (6) affirm maturity and mark a developmental transition into young adulthood (Jessor & Jessor, 1977; as cited in Gonzalez et al., 1994, p. 702).

Levitt and Selman (1996) claim that teachers, and parents need to learn about the roles that risk-taking behaviours play in youths’ lives, and hope to maximize risk-resistant behaviour via educational programs. Therefore more work needs to be done in this area and teachers need to begin to incorporate a more holistic approach to teaching sex education.

Teaching and Learning Curricular Implications

In general, many teens learn more about sexuality in the school hallways than in the classroom. On any given day, popular magazines and newspapers print steamy stories about sexuality and education. However, public discourses of adolescent sexuality continue to be enforced forcefully by government officials, despite the ongoing controversy that surrounds sex education or school-based health clinics (Fine, 1988). Therefore, educators need to be aware of the school culture that involves the social discourse among peers regarding sexuality.
Sexual health is a positive component of personal health that affects people of all ages and stages of their lives (Ministry of National Health and Welfare, 1994).

According to Health Canada (1994; as cited in Woloshyn & Rye, 1995, p. 160), one of the primary goals of our current sexuality education programs is to promote sexual health by encouraging participants to realize positive outcomes and avert negative outcomes. Unfortunately, researchers and educators have found that traditional sex education programs tend to be solely information based and fail to promote positive behavioural change (Kirby, 1985; Woloshyn & Rye, 1995). In reality, Kirby (1985) suggests that most teens already know the basic knowledge about human sexuality before they ever enter the classroom. Opponents against most traditional programs cite that these sex education programs fail to acknowledge other factors that influence adolescents’ sexual behaviours, such as peers, parents, and more recently, the media (Kirby, 1985; Woloshyn & Rye, 1995). Furthermore, traditional programs fail to address the affective domain of the curricula, which includes peoples’ emotions, sentiments, and personal feelings about particular issues (Woloshyn & Rye).

A common criticism of the current Ontario curriculum is that it fails to focus on holistic programs and activities that promote a healthy overall psychological/emotional state (Bosacki, 2001; Miller, 1993). A holistic curriculum encourages the educational system to include both the cognitive construction of self with the affective construct of self. Given such a curriculum, the long-term goal of this study is to encourage educators to embark on promoting sex education programs that link the mind, body, and spirit of adolescents. Such a perspective would challenge not only the students, but also encourage the teachers to become actively involved with the school curricula and begin
to respect and transform themselves and the world they live in (Bosacki, 2001).

Specifically, it is important for adolescents to self-reflect and think about thoughts and emotions in relation to their developing sense of self and their sexual choices. Studies such as this, are positive first steps in connecting the curricula with the individual’s minds and souls. This study may help to promote the role of personal choice in youth, in that they learn to take responsibility over their own educational health.

The Canadian Guidelines for Sexual Health Education (Ministry of National Health and Welfare, 1994) were established after careful deliberation and collaboration of individuals with expertise in various aspects of sexual health including: education, public health, women’s issues, health promotion, medicine, nursing, social work, and psychology. The sole purpose of the guidelines is to give a clear framework and direction for educators and organizations to follow for further development of sexual health education policies and programs. However, it should be noted that, the current sexual health guidelines do not outline specific teaching strategies, nor do they recommend specific curricula. Therefore, researchers have found that what is being taught may not necessarily include the guidelines (Kirby, 1985).

Regarding educational implications, such guidelines may not incorporate a holistic approach to sexual health. Therefore, programs should take a holistic approach that promotes self-reflection and encourages teens to feel comfortable with themselves regarding sexual events/behaviours and their learning environment. Such self-awareness of sexual behaviours may help to promote feelings of connectedness with others, which in turn, may have positive benefits in the classroom (Bosacki, 2001).
The Canadian Guidelines for Sexual Health Education (Ministry of National Health and Welfare, 1994) consist of five guiding principles: First, it is believed that effective sexuality education should be accessible to everyone. Second, effective sexual health education is believed to be a shared social responsibility by concerned individuals, organizations, agencies, and various levels of government, in order to address a broad range of issues relevant to the educational needs of diverse populations. Third, it is believed that by incorporating key components such as knowledge acquisition, development of skills that support sexual health, and the development of the critical awareness and skills, an environment can be created, conducive to an effective sexuality education program. Fourth, the guidelines suggest that individuals who are well trained and have strong administrative support from their profession, agency, or organization, should teach sexuality education. Finally, the guidelines believe that maximum impact from sexual health education can be achieved by careful planning, the evaluation of program objectives and participant feedback, as well as ongoing assessment of the sexual health environment.

The Ministry of Education Secondary Curriculum (Ministry of Education, 2001) address different strands in their Health and Physical Education Components. For example, in the Grade 9 and 10 curriculum, there are two mandatory strands. First, there is the healthy living strand. This component addresses knowledge and skills that adolescents need to make informed decisions relating specifically to healthy growth and sexuality. Specific topics included are healthy growth and sexuality, substance use and abuse, personal safety and injury, as well as healthy eating. Second, there is also a living skills strand. This component addresses the practice of the students' skills, while also
helping kids develop a positive sense of self, as well as effective decision making, conflict resolution, and interpersonal skills.

In Grade 11, the curriculum was designed to meet the changing needs of youth and continue to develop the skills and knowledge previously learned. For example, issues of sexuality are further explored and deal specifically with issues such as describing factors that affect reproductive health, infertility, skills required for honest, respectful relationships, and information services relating to sexual health that are available. As well, students are taught strategies to establish priorities and set goals, how to identify common obstacles to successful decision making, the advantages/disadvantages and possible consequences of risk behaviours, in addition to being able to determine whether risk is worth it or not.

Lastly, the curriculum guidelines further expand upon the previous mentioned curricula components. By the end of high school, students will also have been expected to analyze factors that affect gender roles and sexuality, understand factors that affect the prevention of behaviours related to STDs, AIDS and pregnancy (i.e., self-esteem, values, and beliefs about gender roles and sexuality). Further, it is expected that students be able to describe the communication skills needed to discuss sexual intimacy and sexuality in a relationship.

In addition to the explicit curriculum guidelines, the school environment also plays a role in students' preferences, attitudes, and behaviours. One criticism from current educational researchers is that teachers and administrators frequently overlook school culture; in particular the school environment, and the hidden or implicit curriculum (Wren, 1999). As previously stated in chapter 1, it has been suggested that to
gain a more complete picture of our schools, teachers and administrators need to become cognizant of the powerful implicit influences of the school climate and culture, specifically, the values, perceptions, and traditions of not only the teachers but the other students as well. Most times, when reference is made to the curriculum, they are referring to the explicit, consciously planned course objectives (Wren, 1999).

According to the sexual health education literature, many feminist writers and theorists suggest that current sexuality education is not working for girls (Fine, 1988; Martin, 1996). Specifically, Martin (1996) claims that traditional public school sex education promote a discourse of female sexual victimization, privileges married heterosexuality over all other sexual practices, and represses any discourse about female sexual desire and pleasure. Past research suggests that both educators and adolescents are responsible for their notions of self and gendered identities (Bosacki, 2001). This current study hopes to provide the impetus for change by encouraging future research to begin to explore the possibility of students collaborating with educators to co-create the curriculum. Such collaboration will provide students with a sense of personal power and the opportunity to take personal responsibility for learning, under the guidance of their teachers. Furthermore, by eliminating traditional approaches to construction and distribution of knowledge, adolescents may develop a greater sense of agency and in turn begin to make healthier behaviour choices.

Past research shows that sexuality education courses have a weak influence on sexual behaviour (Kirby, 1985; Woloshyn & Rye, 1995). There are numerous reasons that have been given why increases in knowledge from sexuality education programs have limited impact on behaviour. First of all, prevailing research suggests that most
teens already know the basics about sexuality. Further investigations reveal that current sexuality programs produce only modest increases in knowledge, which rapidly diminish with time (Kirby, 1985). Second, he also found that young people tend not to personalize the information being taught, and do not apply it to their own behaviour. Third, many sexually active young people do not have sex very often, and when they do, it often comes as a surprise. Finally, research has established that many other factors influence and affect teenage sexual and contraceptive behaviours. Some of these factors are: parents' values, peer pressure, media messages, sexual desires, and the desire to attract a partner, or the fear of losing one (Kirby, 1985).

Previous research has documented that a well-developed sexuality education program can promote a positive sense of self, values, and behaviours (Kirby, 1995; Woloshyn & Rye, 1995). According to researchers Woloshyn and Rye (1995), one of the reasons why traditional programs fail is because they do not adequately facilitate the leap from knowledge to practice. It is in their opinion that educators must begin to focus not only on lower level cognitive learning, but also begin to incorporate higher level learning domains such as: affective and psychomotor learning. Specifically, they encourage educators to refer to Bloom's learning taxonomies when developing sexuality education programs (Woloshyn & Rye, 1995).

According to Bloom's taxonomies, a positive change in behaviour can be witnessed when effective learning has been achieved, in particular, an improvement in the quality of the individuals' work, skills, and thinking within an area of study (Woloshyn & Rye, 1995). Specifically, three hierarchical learning domains are
recognized to promote long-term behavioural change: cognitive, affective, and psychomotor learning.

As previously stated, most traditional sexuality education programs address only the cognitive learning domain, for example, recognizing knowledge, comprehension, application, analysis, synthesis, and evaluation (Woloshyn & Rye, 1995). Researchers Woloshyn and Rye suggest that sexuality education programs begin to utilize higher level learning to bridge the gap between knowledge and behaviour. Higher level learning incorporates the affective and psychomotor learning domain. The affective domain involves examining the students' emotions, sentiments, and feelings (Cranton, 1989; as cited in Woloshyn & Rye, 1995, p. 159). Specifically, five levels of affective learning that have been identified: receiving, responding, valuing, organization, and characterization. Finally, the psychomotor domain includes the acquisition of both technical skills and nonverbal communication. This physical performance learning domain has been divided up into seven categories: perception, set, guided response, mechanism, complex overt response, adaptation, and organization (Woloshyn & Rye, 1995).

As stated previously, this current research study did not address curriculum directly. This current research study investigated both self-concept and reported sexual behaviour. In particular, regarding self-concept, this study explored the affective or evaluative component of the self (i.e., self-esteem) and the cognitive component of self (i.e., self-descriptions). The results may provide a framework, or provide some evidence for the need to integrate self-knowledge/understanding with sexual knowledge. Furthermore, by combining quantitative and additional analyses, this study will obtain a
more detailed/rich understanding of the complexities of adolescents’ perceptions of self and sexuality, which in turn helps to further provide evidence for the need to restructure the sexual health curricula.

Summary

When understanding the self and sexual risk behaviours in adolescence, examining the relevant past literature is essential. Adolescence is a developmental period where experimentation with possible selves/roles is commonplace (Brinthaupt & Lipka, 2002). For example, at home a teen may be outgoing and confident, while at school he or she may be withdrawn and quiet.

Many self-concept researchers have postulated that an individual’s self-structure is comprised of self-esteem (evaluative/affect) and self-knowledge (cognitive; Finkenauer et al., 2002; Harter, 1999). As previously stated, research suggests that adolescent boys generally have a more positive sense of self than girls. The subjective evaluation of their bodies against societal standards is one common reason cited for this related difference in sense of self (Baumeister, 1993; Finkenauer et al., 2002; Harter, 1999; Martin, 1996). To be exact, the puberty changes that males experience move them closer to what society deems ideal than females (Finkenauer et al., 2002; Martin, 1996).

Markus and Kitayama (1991; as cited in Cross & Madson, 1997, p. 5), claim that self-structures can be divided into two individual construals. In general, men tend to be more likely to construct and maintain an independent self-construal. Specifically, that male’s self-definition is grounded in his own unique abilities or characteristics, whereas, females are more prone to create and maintain an interdependent self-construal. Females
base their selfdefinitions on their relationships with others and their pursuit of harmony (Cross & Madson, 1997).

Adolescent behaviours have always been of great interest to Canadian educational researchers, specifically, high-risk behaviours such as unplanned pregnancies and sexually transmitted diseases (STDs). In 2000, researchers Maticka-Tyndale, Barrett, and McKay undertook a study to examine these high-risk sexual behaviours. Findings suggested that Canada’s national data on sexual behaviour (in particular, adolescent and young adult sexual behaviour) are extremely limited. The last comprehensive national survey of sexual and reproductive youth behaviour was in 1988: the Canada Youth and AIDS Study (CYAS). However, given the limited available Canadian research in this field, previous studies have established that many youth have experienced sexual intercourse, and in fact, have had multiple partners by the time they graduate from high school (Herold, 1984; Luster & Small, 1994).

Unprotected sexual intercourse predisposes teens to health-related risks, such as sexually transmitted diseases (STDs) and unplanned pregnancies. Statistic’s Canada (1996) found that in 1990, only 27% of Niagara adolescents (aged 15 to 19) reported that they used condoms “often” or “always.” According to the 2000/2001 National Population Health Survey (NPHS), a substantial proportion of teenagers are still not using condoms every time they have sexual intercourse. Specifically, the survey reported that among sexually active teens in the Toronto area, only 62% reported using condoms always, compared with 47.2% from the Simcoe County region, 62.3% from the Waterloo-Wellington region, and 56.5% of adolescents from the Windsor area.
Health Canada (2001) reported that adolescent girls (aged 15 to 19) had the highest rate of chlamydia and gonorrhea infections; rates that are 5.7 times higher than the rate for all Canadians. Within the United States, statistics reveal that of the 12 million reported cases of STDs, one quarter of those infected are adolescents (Luster & Small, 1994).

Previous research tells us that there are a few factors associated with risky adolescent sexual behaviour (Blake et al., 2001; Kirby, 2001; Luster & Small, 1994). Specifically, it has been found that parent-child communications and connectedness, peers’ norms and behaviours, the illusion that bad things can’t happen to them, and low GPA, have a significant impact.

Finally, sexuality education literature shows us that young people have the sexual knowledge, but this knowledge is not being reflected in their behaviours (Kirby, 1985; Woloshyn & Rye, 1995). For example, some researchers claim that most traditional sexuality education programs fail to illicit healthy sexual behaviour choices because they fail to incorporate higher level learning domains and focus only on lower level cognitive learning (Woloshyn & Rye). Some researchers suggest that educators and policymakers need to integrate aspects of Bloom’s learning taxonomies into sexuality education programs (Woloshyn & Rye).

This concludes the review of the literature relevant to this research project. These topics will be revisited in the discussion section of this paper to help bring clarity to the results of the study. The next section of the paper outlines the methodology and procedures that were used to study the adolescents’ reported self-esteem and sexual behaviours.
The Present Study

In light of the aforementioned theories and empirical evidence, this study explores the relation between self-esteem and reported sexual behaviour. This research study was undertaken because of the lack of research on adolescents’ perceptions of self and sexual behaviour. Specifically, this study addressed the following questions:

1. a) Do gender and age differences exist in adolescent self-esteem, reported sexual behaviour, and perceptions of sexual behaviour as risk behaviour?
   
   b) Will the relations among these constructs differ according to gender?

2. Will gendered relations exist between adolescents’ evaluative (affective) and cognitive aspects of self-descriptions?

3. How will the self-views/descriptions of adolescents differ between girls and boys, with respect to interdependent or independent constructs?

Based on past relevant research, the following hypotheses were made:

1. a) In line with previous research, significant gender and age differences would be found in adolescent self-esteem and reported sexual behaviour (Martin 1996; Striegel-Moore & Cachelin, 1999). Specifically, it was predicted that adolescent boys would report a more positive sense of self (higher levels of self-esteem) and a higher number of sexual behaviours than girls. It was also predicted that older students would engage in more sexual behaviours than younger ones. As well, it is also predicted that males would perceive sex behaviours as less risky than females, and older adolescents would perceive sex as less risky than younger adolescents.
   
   b) A significant relation would exist between sexual behaviour and self-esteem in both male and female students. Baumeister and Tice (2001) have reported similar
findings. Specifically, it was predicted that males who would engage in sexual behaviours would also report relatively high self-esteem, whereas females who reported low self-esteem would be more likely to report recent sexual involvement.

In line with researchers Smith, Gerrard, and Gibbons (1997), a significant negative relation would exist between self-esteem and perception of sexual behaviours as risk behaviours in both males and females. Specifically, it was predicted that individuals who reported a positive sense of self (high self-esteem) would be less likely to view sexual behaviours as risk-taking behaviours.

2. In line with research conducted by Marsh, Craven, and Debus (1998) and Brinthaupt and Lipka (2001), adolescents’ self-esteem and self-descriptions would be related. Specifically, it was predicted that girls who rate themselves more positively would also provide a more cognitively complex self-description. Previous research in this area (Field, Harding, Yando, & Gonzalez, 1998) suggests that self-concepts become increasingly multifaceted as an individual moves from infancy to adulthood, and have both a descriptive and an evaluative dimension (more positive).

3. According to Cross and Madson (1997), self-descriptions for boys would be more likely to reflect the independent self-construct, whereas girls’ self-descriptions would be more likely reflect the interdependent self-construct.
CHAPTER THREE: METHODOLOGY AND PROCEDURES

Introduction

This study investigated the relations between adolescents' reported self-esteem and sexual behaviours. The following chapter outlines the method of this study. First, the chapter discusses the research approach and design utilized in this study. Following this, the chapter continues with a description of the study's instrumentations, participants, procedures, original data collection, and data analysis methods. Finally, the chapter concludes by outlining the major assumptions and limitations of the study that must be considered when interpreting the findings of this study.

Research Approach and Design

Among educational researchers there remains an ongoing philosophical debate as to which type of research is "better" – qualitative or quantitative (Creswell, 2002). As stated by Bogden and Biklen (1998), no one method is better than the other. In contrast, the method should be chosen depending on the research questions and the goals of the research.

In order get a complete picture of the relations between self-concept and adolescent reported sexual behaviours, quantitative variables were analyzed first and then the responses to the open-ended self-description question were further analyzed to help explain or elaborate on the quantitative results (Creswell, 2002). The result was a richer picture of the adolescent school experience regarding self and sexuality.
Regarding the quantitative component, the dependent variables included self-esteem, adolescent sexual behaviour, and their perceptions of sexual behaviour as risk-taking. The independent variables included gender and age.

In addition to the quantitative analyses described above, further analyses were performed on the open-ended question that asked students to describe themselves were coded.

Instrumentation

This research study involves the secondary data analyses regarding previously collected data from a larger, 3-year (2000-2003) longitudinal project entitled, the Youth Lifestyle Choices-Community University Research Alliance 2000 (YLC-CURA) Youth Resilience Questionnaire (YRQ), to understand youth (see Appendix A). The YLC-CURA is a multifaceted research project that studies resiliency and other positive youth lifestyle choices in the areas such a substance abuse, sexual activity, physical activity, gambling, and academic achievement. YLC-CURA’s main objective is to operate as an institute through which multidisciplinary (e.g., social science, economics, applied health, and psychology) researchers, students, and the community agencies can apply for funding and assistance in the planning of studies, data collection, analysis, writing of articles, and program evaluation and interventions.

The main data source for the YLC-CURA project involves the Youth Resilience Questionnaire (YRQ), which is a large-scale questionnaire created from 51 independent measures, conducted on youth \(n = 7,430\); Grades 5, 7, 9, 11, and OAC in the Niagara Region. The present study analyzed data collected during the first wave of data
collection (2001 school year) and included the following dependent variables: reported sexual behaviour (Part VV), self-esteem (Part KK), assessment of risk (Part RR), and self-concept (Part YY). The following variables were used:

**Self-Esteem.** Self-esteem was measured by the Rosenberg Self-Esteem Scale. The Rosenberg measures global self-esteem by asking particular questions that focus on such factors as personal worthiness, appearance, and social competence (e.g., “I feel useless at times” and “I wish I could like myself more”). For the purposes of the CURA study, the Rosenberg Self-Esteem Scale’s original four categories (strongly agree, agree, disagree, strongly disagree), were modified by adding the addition of the category; neither agree nor disagree. Furthermore, Question 7 was changed from “could have more respect for myself” to “could like myself more” and Question 8 was changed from “am inclined” to “I tend to be inclined.” Scores of 10-50 were assigned for each item and were then summed for an overall self-esteem score. For example, a score of 50 reflected relatively low self-esteem and a score of 10 reflected high self-esteem. For the present CURA sample, internal consistency for the Rosenberg Self-Esteem Scale was high (Cronbach’s Alpha = .89).

**Self-Concept.** Self-concept was measured by one open-ended question created by CURA that asked students: “How would you describe yourself?” Students were required to write a response as opposed to choosing a particular response, as with the other dependent variables. The self-concept variable was used to explore the cognitive complexity of the students’ responses. Limitations regarding analyses of open-ended description questions are discussed in the Methodological Assumptions and Limitations section of this chapter.
Assessment of Risk. This study also explored students’ perceptions of how risky the act of having sex is for themselves and for their peers. For the CURA sample, reliability for the Risk Assessment variables was found to be .89 using Cronbach’s Alpha. For the purposes of this current research study the specific questions analyzed were: “How risky do you believe it is for YOU to have sex?” and “How risky do you believe it is for OTHER PEOPLE YOUR OWN AGE to be having sex?” Scores of 1-5 were assigned for each question. For example, a score of 1 reflected that a student felt that having sex was very risky for themselves or others, while a student responding with a score of 5 did not perceive sex to be risky behaviour. Because of a high correlation between these two questions ($r=.556, p<000$); a composite was created from these two questions to adequately measure risk perception.

Sexual Behaviour. YLC-CURA created the questions for this particular section pertaining to reported dating and sexual experiences. This section of the questionnaire consists of 25 questions. Issues such as the individual’s first date, how old they were when they first had sexual intercourse, and how many times they have been treated for a sexually transmitted disease are addressed. For the purposes of this current research study Questions # 1-9 and 14-24 were analyzed (see Appendix A). With respect to the original CURA sample, reliability for the Sexual Behaviour items #8a-d was found to be .91 using Cronbach’s Alpha. The single items’ (#1-7,9 and 14-24), alphas were not able to be computed by test-retest reliability since this requires repeated measurement.

For the purposes of addressing specific sexual behaviours, composite variables (responses summed and totaled) were created to help focus on particular sexual behaviours that the students may or may not be engaging in (Stevens, 1992).
Specifically, composite variables were created for: 1) recent sexual engagement, 2) contraceptive use, 3) sexual risk outcomes, and 4) a student’s self-reported importance of abstinence. Specifically, abstinence was measured by the question: “How important is not having sex (i.e., abstinence) to you?”

As stated in chapter 1, Baumeister and Tice (2001) report that adolescents are participating in sexual behaviours (i.e., kissing, touching, oral sex, and intercourse) at younger ages and in greater numbers than years prior. A composite variable of recent sexual engagement was created to address the students’ participation in certain sexual behaviours over the past 12 months. Specifically, Question #8 a-d (“In the past 12 months how often have you engaged in the following?”) was used. For the purpose of this study, sexual behaviours were represented as kissing, touching, orally touching, and sexual intercourse in order to encapsulate the whole range of sexual activity that adolescents’ report participating in. Prior to the summing and totaling of the specific research composite, Pearson bivariate correlations were conducted on the selected questions. Results revealed that all questions were positively significantly correlated (see Table 1).

To assess contraceptive use, a composite of Questions #15 & #19 (“Over the LAST 12 MONTHS how often have you used a condom during sexual intercourse?” and “Have you ever thought about having unprotected sex (i.e., sex without a condom?)”) was created. First, the questions were correlated and found to be marginally significant ($r=0.064, p<0.05$). The questions utilized different scales to score the students’ responses,
Table 1

*Intercorrelations Between Survey Questions for Recent Sexual Engagement Variable*

<table>
<thead>
<tr>
<th>Questions</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students (n=300)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Kissing</td>
<td>-</td>
<td>.78**</td>
<td>.63**</td>
<td>.54**</td>
</tr>
<tr>
<td>2. Touching</td>
<td>-</td>
<td></td>
<td>.81**</td>
<td>.69**</td>
</tr>
<tr>
<td>3. Oral Touch</td>
<td>-</td>
<td></td>
<td></td>
<td>.75**</td>
</tr>
<tr>
<td>4. Intercourse</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)**
so the scores of both questions were first converted to z-scores and then summed to make an overall contraceptive score. For example, high scores reflects a student who is not committed to using contraception, whereas, in turn, a low score reflects someone who uses contraception. Due to the lack of observational data, scoring and interpretation was based on concrete data pertaining to the student’s individual dating and sexual behaviour (see section on assumptions and limitations for concerns regarding reliability and validity).

Furthermore, a composite was created for the variable sexual risk outcomes utilizing research Questions #16a & #19 (specifically, “How many times have you been pregnant or gotten someone pregnant?” and “How many times have you been treated for a sexually transmitted disease (STD)?”, respectively). Prior to the creation of the composite, correlations performed on these two questions did not reveal a significant relation.

**Coding of Self-Description Responses**

Prior to the additional analyses of the self-description question, students’ responses to the open-ended question, “How would you describe yourself?” were coded according to various categories found in the coding manual (see Appendix B).

After a thorough reading of all 300 participants’ responses, the responses were coded according to the guidelines previously created in the manual. After coding all 300 responses, a new database was constructed to further analyze the students’ responses. To ensure interrater reliability, an external rater (a graduate student) scored all the responses for four randomly selected variables. The variables selected to score were the cognitive
complexity variable, the self-descriptions variable, the confidence frequency, as well as the physical appearance frequency. Initially, the coding manual was discussed to assure that the guidelines were clear and understandable. Both raters, scored the selective variables independently of one another, then met to compare results. Disagreements were discussed until consensus was reached. Kappa was used to confirm interrater reliability on the students' scores (see Table 2). This analysis revealed that the scores given by Rater 1 and Rater 2 for each of the selected variables were in significant agreement at the 0.01 level.

Gleaned from past research on adolescent self-concept (Bosacki, 1998; Harter, 1999; Levitt & Selman, 1996), the coding manual created for this study was adapted from various coding categories of self-concept and social data in adolescents' theoretical dimensions of the self. Due to the brevity of the self-descriptions, the self-descriptions were coded according to modified categories. Therefore, this study relied on previous coding categories established, and as well, highlighted the need to examine the cognitive complexity of the self-descriptions. Specifically, three global or macrolevel categories (i.e., self-complexity variable, valence of personality traits/descriptions variable, and the self-descriptions variable) and seven more detailed or microlevel categories (i.e., athletic participation, scholastic participation, popularity, behavioural/conventional conduct, physical appearance, religion/spiritual participation, and confidence component) were created. A brief description of the variables include the following:

**Self-Complexity Variable:** The self-complexity variable was created to determine students' cognitive complexity of their responses (i.e., how their responses reflected cognitive development). Students' responses were scored in accordance to levels of
Table 2

*Kappa Analyses for Cognitive Complexity Variable, Descriptive Variable, Confidence Frequency and Physical Frequency*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Kappa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Complexity</td>
<td>0.971</td>
</tr>
<tr>
<td>Self-Description</td>
<td>0.972</td>
</tr>
<tr>
<td>Confidence</td>
<td>0.930</td>
</tr>
<tr>
<td>Physical</td>
<td>0.901</td>
</tr>
</tbody>
</table>
cognitive development ranging from 1-3 (higher scores reflect greater cognitive complexity). Non-tangential responses were scored as missing data.

Valence of Personality Traits/Descriptions Variable: The valence of personality traits/descriptions variable included the frequency count of the number of positive traits, negative traits, and neutral traits found in the students’ responses.

Self-Descriptions Variable: The self-descriptions variable was created to code students’ responses with regard to attributes or characteristics of the self that were consciously acknowledged by the students. Specifically, responses were coded as one of five categories: social acceptance, behaviour conduct/conventional behaviour, physical appearance, athletic participation, or non-tangential.

Athletic Participation: Student’s descriptions of self were coded for frequencies, examining whether the students made reference to athletic participation or not.

Scholastic Participation: The scholastic participation frequency variable was coded for whether students’ responses included any references to intellectual competence, or marks, etc.

Popularity: The measure of social acceptance reflected the frequency of whether or not the students made reference to friends, peers, etc. in their self-description statements.

Behavioural Conduct/Conventional Behaviour: This variable reflected self-perceived behavioural conduct and was coded whether or not students’ responses made reference to their behaviour in terms of being appropriate or well-behaved.

Religion/Spiritual Participation: The religion/spiritual participation variable was coded for whether or not student responses included reference to religious and/or spiritual beliefs.
Confidence Component: Finally, the confidence component frequency variable coded responses that made explicit indication to whether or not students reported being confident, strong minded, or having a high self-esteem.

Procedures/Original Data Collection

The original data collection involved the administration of the CURA survey to high school students in the Niagara Region. Following completion of consent forms, the students were informed that information would be kept confidential and then the participants were administered a 2-hour comprehensive survey in their classrooms. The students were also informed that participation was completely voluntary, and if at any point they wanted to stop, they could do so. The students read along while the instructions were read aloud by the administrator and were informed that this was not a test and that there were no right or wrong answers.

As previously stated, the study sample consisted of participants from the Community University Research Alliance 2000 (CURA) Youth Resilience Questionnaire. The questionnaire was administered to both secondary and elementary (Grades 5-7) students in the Niagara region.

A total of 7,205 secondary students from 27 secondary schools in Southern Ontario completed a 2-hour comprehensive survey examining lifestyle circumstances and choices. Risk and protective factors, as well as risk behaviours, were examined within community/school, family, peer, and intrapersonal domains. Given that the sex questions were administered to secondary students only, this study included only secondary students (Grades 9-OAC).
Gaining Access/Permission/Selection of Participants

An initial proposal was submitted by the researcher to the CURA Research Review Committee for permission to conduct secondary analysis on the data collected from the Youth Resilience Questionnaire (see Appendix C).

Permission was granted to conduct a cross-sectional study on the data from a sample of 300 of the high school students' questionnaires that were randomly selected from the larger sample. The total sample of 300 consisted of 100 students representing each grade (9, 11, OAC). For equal gender representation, each grade sample contained an equal number of females and males (e.g., 100 Grade 9's consisted of 50 females and 50 males). This study used a subsample of participants who had no missing data on any of the measures.

During August of 2001, the YLC-CURA Proposal Review Committee approved the proposal to access data from the YLC-CURA survey (see Appendix D). A file was prepared and made available for pick up after September 4, 2001. The YLC-CURA Proposal Review Committee required that all written material using YLC-CURA data must have a prepared statement and a final copy of the research paper must be submitted to YLC-CURA.

Finally, following this proposal, permission was granted from the Brock University Research Ethics Board (REB) to analyze secondary data originally collected by CURA (see Appendix E for REB approval letter, File # 01-061).
Data Analysis

For this study, quantitative (descriptive and inferential statistics, including multivariate analysis) were used to examine grade and gender-related differences and relations. In addition to the quantitative analyses, further analyses were performed on the categorical data. In particular, the responses to the open-ended question, “How would you describe yourself?” were examined by means of descriptive, correlational, and chi-square analyses.

Quantitative data analysis included reviewing specific data from the CURA questionnaire that were relevant to the current study. Specifically, the dependent variables that were analyzed included the self-esteem variables, the assessment of risk variables (Questions # 1-2 and 5-7), and the dating and sexual activity variables (Questions # 1-9 and 14-24).

To explore group mean differences among the variables, the independent variables included age and gender. The dependent variables included sexuality, perception of risk, and self-esteem. To investigate gender and grade main effects on the dependent variables, analyses were conducted using 3(grades) x 2(gender) multivariate of analysis of variance (MANOVAs) or 3(grades) x 2(gender) univariate of analysis of variance (ANOVAs), consisting of two between-group factors (grade and gender). Significant MANOVA results were then followed by univariate analyses. In addition to main effects, interactions between grade and gender were also explored.

MANOVAs were utilized in this research study because of the complexity that they take into consideration when conducting statistical analyses. Specifically, they allow for the examination of simultaneous relations between many variables, while also
accounting for potentially deceptive factors, which is when a relationship can be explained by a third unmeasured variable (Stevens, 1992; Sweet & Grace-Martin, 2003).

Usually, social behaviours are associated with many factors and cannot be explained by the association of an individual variable. Therefore, by including MANOVAs, researchers are able to create an often more accurate and sophisticated model to predict and explain social behaviour (Sweet & Grace-Martin, 2003).

To investigate the associations among adolescents' sexual behaviors and their attitudes towards themselves and their sexuality, correlational analyses were also conducted. Specifically, to examine the relations among variables, correlational analyses were conducted to look at what dependent variables were related and whether these correlations differed for girls and boys. Correlational analyses were conducted on the main dependent variables for the following: 1) the entire sample (N=300); 2) each gender across the entire sample (males Grade 9-OAC and females Grade 9-OAC); 3) each grade separately (9, 11, OAC); and 4) each gender within each grade (Gr. 9 males; gr. 11 males; OAC males; Gr. 9 females; Gr. 11 females; and OAC females). Intercorrelations involved the following dependent variables: 1) contraceptive use, 2) sexual risk outcomes, 3) abstinence, 4) recent sexual engagement, 5) risk perception, and finally 6) self-esteem.

First, a description of the entire sample, then by grade and gender will be presented (means, SD). Second, to investigate age and gender group differences, multivariate analyses were conducted. For example, 3(Grade – 9, 11, OAC) x 2(Gender – Males, Females) MANOVAs were conducted on each main dependent variable. Third, results from correlational analyses of the main variables will be presented. Specifically,
correlations were conducted on all main variables (e.g., contraceptive use and self-esteem, self-esteem and perception of risks, and sexual activity and self-esteem, etc.). In addition, between-group differences and within-group differences were also explored using correlational analyses. For example, did girls score differently on the variables within each grade? And the same for the boys? In addition, whenever a correlation was significant for both genders, correlations were transformed to $z$ scores using the Fisher $r$ to $z$ transformation. The two $z$ scores were then tested to see if the magnitude of the two correlations was significantly different.

Finally, after the new database was created for the categorical data and the interrater reliability was calculated, various analyses were conducted. First, descriptive analyses were conducted to examine grade and gender frequencies. In addition, gender and grade differences were investigated using chi-square analyses. Finally, correlational analyses were conducted on self-esteem and the student's self-complexity score to investigate if a relation exists between self-cognitions and self-affect. The results of these analyses are presented in chapter 4.

Methodological Assumptions and Limitations

The following section describes the assumptions and limitations of the present study. Although self-report data is commonly used in educational research (Creswell, 2002), consideration must be given to the assumptions inherent in this type of self-report data. For example, answers to the research questions may be skewed depending on the how the individual felt on the day the survey was conducted. Student responses on the questionnaire were assumed to represent their true experiences and behaviours.
Recent public discourse regarding what constitutes "sex" is an important limitation of this study that should be addressed. Specifically, the behavioural criteria involved in how one defines sexual activity. As Saunders and Reinisch (1999) found, a review of the relevant literature reveals that the general public holds widely divergent opinions about what behaviours are and are not considered sexual. In line with previous research, this current study included behaviours such as: kissing, touching, oral contact, and sexual intercourse, to define an all-encompassing sexual behaviour measure (Baumeister & Tice, 2001). With respect to the current study, as stated in chapter 1, sexuality is defined as an awareness that we are sexual beings, able to express ourselves through our bodies. It is the embodiment of the self, and encompasses our thinking, our feeling, and our behaviour, thus, indicating not only the behavioural, but also the psychological (Guldner, 1999). However, the lack of consensus with respect to what behaviours constitute sexual behaviours provides evidence for the need to indicate potential limitations, specifically, that the sexual activities that adolescents report engaging in are too broad and may misrepresent their actual involvement.

Another limitation/assumption of this study that must be discussed is the validity of the further research analysis, specifically, providing justification for such interpretive additional analyses, as well as highlighting the limitations of such. As previously stated, the responses to the open-ended question, "How do you describe yourself?" were not coded according to emergent themes due to the fact the responses were not elaborate, nor complete, therefore relying on previous research for credible coding measures (Bosacki, 1998; Harter, 1999; Levitt & Small, 1996). In line with previous research, it was hypothesized that individuals who report a more positive sense of self, would also
provide more cognitively complex self-descriptions (Brinthaupt & Lipka, 2001; Marsh & Shavelson, 1985). In order to test this research question, the cognitive complexity scores had to be altered from their original coding. Specifically, recoding tangential responses as missing data, therefore, allowing the open-ended question to be examined by means of correlational and chi-square analyses, as well as descriptive, content analyses. Such interpretive analyses were performed for a few reasons: 1) to test the original research question, 2) to provide support for the quantitative analyses, and 3) to provide a richer or “thicker” description of the adolescent sense of self.

However, it should be noted that such interpretive, additional analyses may be limiting in the fact that the adolescents’ open-ended responses were not analyzed inductively. Rather, data were searched out as evidence to prove or disprove hypotheses held before reviewing the responses (Bogdan & Biklen, 1998). That is, given the vast amount of research on self-descriptions, codes were created in line with past research (Bosacki, 1998; Harter, 1999; Levitt & Selman, 1996), as opposed to developing codes that “emerged” from the data.

Furthermore, it is important to address the problems that may be inherent in open-ended questioning and self-report questions, particularly regarding issues around self and sexuality. First, there is the issue of social desirability. For example, the participants may have wanted to please the researcher, thus reporting overly positive or false behaviours. And also it is important to take into consideration that some of the participants may be feeling the effects of fatigue due to the (apparently) overlong survey. The open-ended self-description question was placed at the end of the lengthy
questionnaire. Perhaps the responses would have been different if it had been placed in the beginning.

Another limitation of this study relates to many cases in educational research. To be specific, obtaining a representative sample is fairly rare (Creswell, 2002). The sample size analyzed in this study represents 4% of the total pool of respondents. As a result, the research results presented in this study may not generalize to all adolescents and educational programs.

Finally, regarding the internal validity, the measures may have been influenced because the majority of the items in the YRQ were adopted from standardized questionnaires or were created for the purposes of the YLC-CURA.

Summary

This concludes the discussion of the methodology and procedures of the study. Overall, this study describes the relation between sexual behaviour, perception of risk, and self-esteem in adolescent girls and boys. This chapter outlined the methods employed for this research study, specifically, the instrumentation used to collect the data, the selection of participants, the procedures undertaken, and the types of data analyses applied. As well, the major assumptions and limitations of the study were also discussed.

Chapter 4 presents the findings of the research project, followed by chapter 5, which will specifically address the implications, limitations, and conclusions of the study.
CHAPTER FOUR: RESULTS

Introduction

Guided by the original research questions stated in chapter 2, this chapter presents the results obtained from the research study (both the quantitative and additional analysis results). First, the quantitative section presents descriptive statistics that were performed on the continuous variables; and inferential statistics, including multivariate and univariate analyses, as well as correlational analyses. Second, the additional analyses performed on the categorical data displays descriptive statistics, and chi-square results. Finally, each of the hypotheses will be addressed by conducting appropriate data analyses.

Quantitative Findings

To address the initial research questions, this section first presents descriptive statistics on each of the main variables for the total sample grades and genders. Second, inferential statistical analyses (including ANOVAs, MANOVAs, and correlational analyses) are reported, followed by support for the original research questions. In total, 300 high school students were randomly selected from a larger longitudinal study ($N = 7,205$). The breakdown of the 300 students included: 100 (randomly selected) per grade (9, 11, OAC), and 50 per gender in each grade. The gender, age, and grade of these participants are summarized in Table 3.

Descriptive Statistics

As described in chapter 3, analyses were conducted on a variety of composite variables. The composite variables included the following: self-esteem, abstinence,
Table 3

Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th>Grade</th>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 9 (n = 100)</td>
<td>Female</td>
<td>50</td>
<td>50</td>
<td>14</td>
<td>.44</td>
</tr>
<tr>
<td>Grade 11 (n = 100)</td>
<td>Female</td>
<td>50</td>
<td>50</td>
<td>16</td>
<td>.42</td>
</tr>
<tr>
<td>OAC (n = 100)</td>
<td>Female</td>
<td>50</td>
<td>50</td>
<td>18</td>
<td>.14</td>
</tr>
<tr>
<td>Total (N = 300)</td>
<td>Female</td>
<td>150</td>
<td>150</td>
<td>16</td>
<td>1.58</td>
</tr>
</tbody>
</table>
contraceptive use, recent sexual engagement, and risk perception. Variable scores were normally distributed by examination of frequency of the scores (histograms). Tables 5 to 10 shows the means, standard deviations, minimum/maximum range, and skewness of the main dependent variables according to grade and gender.

**Self-esteem.** The students self-esteem was measured by a modified Rosenberg Self-esteem Scale (see pg. 46). The scores were summed to create an overall self-esteem score. An overall self-esteem score, ranging from 10.0 to 50.0, was obtained for all 300 students. It should be noted that an inverse relation exists between scores and self-esteem (that is a lower self-esteem score reveals a positive view of self, and vice versa).

Resulting overall self-esteem scores are summarized in Tables 5 to 10.

**Abstinence.** Abstinence from having sex was measured by Question #7 in the sexuality measure of the questionnaire, “How important is not having sex (i.e., abstinence) to you?” Student’s scores ranged from 1 (representing very important) to 4 (representing not at all). Results of this variable are summarized in Tables 5 to 10.

**Contraceptive use.** To assess contraceptive use, a composite of two questions in the sexuality measure of the questionnaire that specifically looked at the students’ contraceptive practices were used. Specifically, Questions #15 and #19, that is, “Over the LAST 12 MONTHS how often have you used a condom during sexual intercourse?” and “Have you ever thought about having unprotected sex (i.e., sex without a condom)?”; were used, respectively. The questions utilized different scales to score the students’ responses, so the scores of both questions were correlated ($r=0.064, p<0.535$), converted to z-scores, and then combined to make an overall contraceptive variable. For the purpose of this study a higher score represents a stronger commitment to contraceptive
null
use than a lower score. The results of the student’s scores are summarized in Tables 5 to 10.

**Recent sexual engagement.** To address the students’ sexual engagement of certain behaviours over the past 12 months, a composite variable was created. Specifically, Question #8 a-d (i.e., “In the last 12 months how often have you engaged in the following?”) was used. First, intercorrelations were performed on Question #8 a-d (see Table 1). To create the composite, the specific responses were then summed and totaled. For the purpose of this study, sexual behaviours were represented as kissing, touching, orally touching and sexual intercourse. Students’ scores range from 1 (never engaging) to 6 (engaging every day). Results of the students’ scores are summarized in Tables 5 to 10.

**Risk perception.** This study also examined students’ perceptions of how risky the act of having sex is for themselves and their peers. A composite variable was created from Questions #1g & #6g in the risk assessment measure of the questionnaire. Students’ scores range from 1 (believing sex to be risky) to 5 (not risky), meaning that the higher scores represent a lower perception of risk behaviour. The results of the students’ scores are summarized in Tables 5 to 10.

**Sexual risk outcomes.** For the purpose of this study it was also important to examine the occurrence of negative repercussions for participating in risky sex. Specifically, the composite variable was created from Question #19, “How many times the students have been treated for a sexually transmitted disease (STD)?” and #16 “How many times they have been pregnant or gotten someone pregnant?” of the sexuality measure. Scores ranged from 1) not sure, 2) never, to 4) twice or more. Prior to creating
the composite variable, correlations were conducted on both Questions \((r=108, p=0.268)\).

The results of the students' scores are summarized in Tables 5 to 10.

Inferential Statistical Analyses

*Gender and age main effects:* As previously stated in chapter 3, MANOVAs were used because they allow for the examination of simultaneous relations among many variables (i.e., abstinence, contraceptive use, recent sexual engagement, and sexual risk outcomes), while also accounting for potentially deceptive factors (Sweet & Grace-Martin, 2003).

To investigate gender and grade main effects among the sexuality scores, a 3(grade) x 2(gender) multivariate of analysis of variance (MANOVA) was conducted on the conceptually linked sexuality variables (i.e., abstinence, contraceptive use, recent sexual engagement, and sexual risk outcomes). Univariate analyses of variance (ANOVAs) were examined only for those multivariate main effects or interactions that reached significance at the level of \(p<.05\). When univariate analyses were conducted, each of the sexuality variables served as the dependent variables in separate ANOVAs. Overall, the results from the MANOVA showed a number of significant gender and grade main effects for each of the main groups of dependent measures (recent sexual engagement, abstinence, contraception use, and sexual risk outcomes). With respect to the students contraceptive score, the MANOVA found significant multivariate main effects for grade, Wilk's Lambda =0.776, \(F (4, 295)=3.419\), \((p<0.01)\). No significant gender or interaction effects were revealed. Following this significant MANOVA result, univariate analyses were then conducted separately on the contraceptive use variable.
Table 4

*Response Rates for Each Dependent Variable*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Characteristics</th>
<th>Gender</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male (n = 150)</td>
<td>Female (n = 150)</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td></td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Abstinence</td>
<td></td>
<td>138</td>
<td>146</td>
</tr>
<tr>
<td>Risk Perception</td>
<td></td>
<td>134</td>
<td>135</td>
</tr>
<tr>
<td>Sexual Engagement</td>
<td></td>
<td>127</td>
<td>129</td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td></td>
<td>47</td>
<td>51</td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td></td>
<td>51</td>
<td>55</td>
</tr>
</tbody>
</table>

*Variable* | *Definition*                                                                 | *Possible range*
---|-----------------------------------------------------------------------------|---|
Self-Esteem | = Total self-esteem score. Higher scores reflect lower self-esteem. | 10-50 |
Abstinence | = Total sex abstinence score. Lower scores represent greater importance. | 1-4 |
Risk Perception | = Total risk perception score. Lower scores represent greater risk. | 1-5 |
Recent Sexual Engagement | = Total recent sexual engagement score. Lower scores represent never engaging. | 1-6 |
Contraceptive Use | = Total contraceptive use score. Higher scores represent higher commitment. | -3-4 |
Sexual Risk Outcomes | = Total negative sexual repercussions score. High scores represent twice or more. | 1-3 |
Table 5

**Descriptive Statistics and Univariate Analyses of Main Variables for Entire Sample (N=300)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>300</td>
<td>22.36</td>
<td>7.36</td>
<td>.39</td>
<td>.09</td>
</tr>
<tr>
<td>Abstinence</td>
<td>284</td>
<td>2.92</td>
<td>1.12</td>
<td>.59</td>
<td>.11</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>269</td>
<td>3.03</td>
<td>1.21</td>
<td>-.06</td>
<td>.32</td>
</tr>
<tr>
<td>Recent Sexual Engagement</td>
<td>256</td>
<td>2.76</td>
<td>1.57</td>
<td>.36</td>
<td>2.46</td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td>98</td>
<td>1.16</td>
<td>.85</td>
<td>.24</td>
<td>1.13</td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td>106</td>
<td>2.02</td>
<td>.25</td>
<td>1.99</td>
<td>3.57*</td>
</tr>
</tbody>
</table>

*Note. F represents gender and grade (interaction) differences from univariate analyses that followed significant MANOVA results. As well as, individual ANOVA results on the dependent variables self-esteem and risk perception (see text). Results showed significant multivariate interaction (grade x gender) effects (see text).*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Possible range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>Total self-esteem score. Higher scores reflect lower self-esteem.</td>
<td>10-50</td>
</tr>
<tr>
<td>Abstinence</td>
<td>Total sex abstinence score. Lower scores represent greater importance.</td>
<td>1-4</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>Total risk perception score. Lower scores represent greater risk.</td>
<td>1-5</td>
</tr>
<tr>
<td>Recent Sexual Engagement</td>
<td>Total recent sexual engagement score. Lower scores represent never engaging.</td>
<td>1-6</td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td>Total contraceptive use score. Higher scores represent higher commitment.</td>
<td>-.3-4</td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td>Total negative sexual repercussions score. High scores represent twice or more.</td>
<td>1-3</td>
</tr>
</tbody>
</table>

*p < .05.
Table 6

Descriptive Statistics and Gender Effects for Main Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Girls</th>
<th>Boys</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 150)</td>
<td>(n = 150)</td>
<td></td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>23.46 (7.32)</td>
<td>21.27 (7.26)</td>
<td>6.76**</td>
</tr>
<tr>
<td>Abstinence</td>
<td>2.76 (1.11)</td>
<td>3.07 (1.11)</td>
<td>5.77*</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>2.75 (1.19)</td>
<td>3.30 (1.17)</td>
<td>15.26**</td>
</tr>
<tr>
<td>Recent Sexual Engagement</td>
<td>2.82 (1.60)</td>
<td>2.70 (1.56)</td>
<td>.52</td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td>-4.3 (.91)</td>
<td>4.68 (1.10)</td>
<td>.01</td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td>2.03 (.15)</td>
<td>2.01 (.32)</td>
<td>.35</td>
</tr>
</tbody>
</table>

Note. F represents gender differences from 3x2 univariate analyses that followed significant MANOVA results. As well as, individual 3x2 ANOVA results on the dependent variables self-esteem and risk perception (see text). Mean scores shown with standard deviations in parentheses.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Possible range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>Total self-esteem score. Higher scores reflect lower self-esteem.</td>
<td>10-50</td>
</tr>
<tr>
<td>Abstinence</td>
<td>Total sex abstinence score. Lower scores represent greater importance.</td>
<td>1-4</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>Total risk perception score. Lower scores represent greater risk.</td>
<td>1-5</td>
</tr>
<tr>
<td>Recent Sexual Engagement</td>
<td>Total sexual engagement score. Lower scores represent never engaging.</td>
<td>1-6</td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td>Total contraceptive use score. Higher scores represent higher commitment.</td>
<td>-3-4</td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td>Total negative sexual repercussions score. Higher scores represents twice or more.</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**p<.01. *p <.05.
Table 7

**Descriptive Statistics and Grade Effects for Main Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Grade 9 (n = 100)</th>
<th>Grade 11 (n = 100)</th>
<th>OAC (n = 100)</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>22.72 (7.22)</td>
<td>22.97 (7.82)</td>
<td>21.40 (6.99)</td>
<td>1.33</td>
</tr>
<tr>
<td>Abstinence</td>
<td>2.68 (1.14)</td>
<td>3.02 (1.03)</td>
<td>3.05 (1.16)</td>
<td>3.30*</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>2.68 (1.26)</td>
<td>3.14 (1.21)</td>
<td>3.25 (1.10)</td>
<td>6.02*</td>
</tr>
<tr>
<td>Recent Sexual Engagement</td>
<td>2.08 (1.36)</td>
<td>2.80 (1.48)</td>
<td>3.42 (1.60)</td>
<td>18.03**</td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td>-1.0 (1.41)</td>
<td>-.31 (1.13)</td>
<td>.23 (.62)</td>
<td>3.84*</td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td>2.05 (.35)</td>
<td>1.99 (.29)</td>
<td>2.03 (.16)</td>
<td>2.01</td>
</tr>
</tbody>
</table>

*Note. F* represents grade differences from 3x2 univariate analyses that followed significant MANOVA results. As well as, individual 3x2 ANOVA results on the dependent variables self-esteem and risk perception (see text). Mean scores shown with standard deviations in parentheses.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Possible range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>= Total self-esteem score. Higher scores reflect lower self-esteem.</td>
<td>10-50</td>
</tr>
<tr>
<td>Abstinence</td>
<td>= Total sex abstinence score. Lower scores represent greater importance.</td>
<td>1-4</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>= Total risk perception score. Lower scores represent greater risk.</td>
<td>1-5</td>
</tr>
<tr>
<td>Recent Sexual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>= Total recent sexual engagement score. Lower scores represent never engaging.</td>
<td>1-6</td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td>= Total contraceptive use score. Higher scores represent higher commitment.</td>
<td>.3-4</td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td>= Total negative repercussions score. Higher scores represent twice or more.</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**p <.01. *p <.05.**
Table 8

Descriptive Statistics of Main Variables for Each Gender in Grade 9 (N=50)

<table>
<thead>
<tr>
<th>Variables</th>
<th></th>
<th>M</th>
<th>F</th>
<th>M</th>
<th>F</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>21.42 (7.12)</td>
<td>24.02 (7.16)</td>
<td>10.00</td>
<td>10.00</td>
<td>37.00</td>
<td>40.00</td>
<td></td>
</tr>
<tr>
<td>Abstinence</td>
<td>2.87 (1.17)</td>
<td>2.50 (1.09)</td>
<td>1.00</td>
<td>1.00</td>
<td>4.00</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td>Risk Perception</td>
<td>2.99 (1.24)</td>
<td>2.36 (1.21)</td>
<td>1.00</td>
<td>1.00</td>
<td>5.00</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Recent Sexual Engagement</td>
<td>2.29 (1.55)</td>
<td>1.87 (1.12)</td>
<td>1.00</td>
<td>1.00</td>
<td>6.00</td>
<td>6.00</td>
<td></td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td>-1.70 (1.61)</td>
<td>-.39 (.00)</td>
<td>-3.49</td>
<td>-.39</td>
<td>4.20</td>
<td>-39</td>
<td></td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td>2.07 (.42)</td>
<td>2.00 (.00)</td>
<td>1.50</td>
<td>2.00</td>
<td>3.50</td>
<td>2.00</td>
<td></td>
</tr>
</tbody>
</table>

Note. Mean scores shown with standard deviations in parentheses.

Variable                      | Definition
---                            | ---
Abstinence                     | Total sex abstinence score. Lower scores represent greater importance.
Risk Perception                | Total risk perception score. Lower scores represent greater risk.
Recent Sexual Engagement       | Total recent sexual engagement score. Lower scores represent never engaging.
Contraceptive Use              | Total contraceptive use score. Higher scores represent higher commitment.
Sexual Risk Outcomes           | Total negative repercussions score. Higher scores represent twice or more.
Table 9

*Descriptive Statistics of Main Variables for Each Gender in Grade 11 (N=50)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>F</th>
<th>Minimum M</th>
<th>Minimum F</th>
<th>Maximum M</th>
<th>Maximum F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>22.10 (7.59)</td>
<td>23.84 (8.03)</td>
<td>10.00</td>
<td>10.00</td>
<td>46.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Abstinence</td>
<td>3.20 (1.02)</td>
<td>2.86 (1.02)</td>
<td>1.00</td>
<td>1.00</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>3.34 (1.16)</td>
<td>2.95 (1.24)</td>
<td>1.00</td>
<td>1.00</td>
<td>5.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Recent Sexual Engagement</td>
<td>2.65 (1.47)</td>
<td>2.91 (1.50)</td>
<td>1.00</td>
<td>1.00</td>
<td>6.00</td>
<td>5.75</td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td>-.60 (.71)</td>
<td>-.15 (1.29)</td>
<td>-2.74</td>
<td>-3.49</td>
<td>-.38</td>
<td>3.46</td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td>1.89 (.35)</td>
<td>2.05 (.22)</td>
<td>1.00</td>
<td>1.50</td>
<td>2.50</td>
<td>2.50</td>
</tr>
</tbody>
</table>

*Note.* Mean scores shown with standard deviations in parentheses.

*Variable* | *Definition*
---|---
Abstinence | = Total sex abstinence score. Lower scores represent greater importance.
Risk Perception | = Total risk perception score. Lower scores represent greater risk.
Recent Sexual Engagement | = Total recent sexual engagement score. Lower scores represent never engaging.
Contraceptive Use | = Total contraceptive use score. Higher score represent higher commitment.
Sexual Risk Outcomes | = Total negative repercussions score. Higher scores represent twice or more.
Table 10

Descriptive Statistics of Main Variables for Each Gender in OAC (N=50)

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>F</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>20.28 (7.11)</td>
<td>22.52 (6.77)</td>
<td>10.00</td>
<td>37.00</td>
</tr>
<tr>
<td>Abstinence</td>
<td>3.17 (1.12)</td>
<td>2.94 (1.21)</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>3.57 (1.08)</td>
<td>2.92 (1.04)</td>
<td>1.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Recent Sexual Engagement</td>
<td>3.15 (1.56)</td>
<td>3.71 (1.61)</td>
<td>1.00</td>
<td>5.50</td>
</tr>
<tr>
<td>Contraceptive Use</td>
<td>.32 (.71)</td>
<td>.16 (.54)</td>
<td>-.39</td>
<td>1.10</td>
</tr>
<tr>
<td>Sexual Risk Outcomes</td>
<td>2.05 (.21)</td>
<td>2.02 (.05)</td>
<td>2.00</td>
<td>3.50</td>
</tr>
</tbody>
</table>

Note. Mean scores shown with standard deviations in parentheses.

Variable                  Definition
Abstinence                 = Total sex abstinence score. Lower scores represent important.
Risk Perception            = Total risk perception score. Lower scores represent greater risk.
Recent Sexual Engagement  = Total recent sexual engagement score. Lower scores represent never engaging.
Contraceptive Use          = Total contraceptive use score. Higher scores represent higher commitment.
Sexual Risk Outcomes       = Total negative repercussions score. Higher scores represent twice or more.
Similar significant grade effects \( F(3, 296)=3.836, p<0.05 \) were shown, while no gender or interaction effects were found (see Tables 5 to 7). Post hoc analysis found that there were significant mean differences between Grades 11 and OAC \( (M=-0.31 \text{ and } M=0.23, \text{ respectively}) \). Examination of the means showed that, compared to Grade 11 students, students in their OAC year were more likely to report that they used contraception when engaging in sexual intercourse.

Results from the MANOVA reveal that the recent sexual engagement scores showed marginally significant multivariate main effects for grade, Wilk's Lambda =0.776, \( F(4, 295)=3.087, (p<0.05) \). No significant gender or interaction effects were found. Following this significant MANOVA result, univariate analyses were conducted separately on the recent sexual engagement variable. The results found significant grade differences \( F(3, 296)=18.030, p<0.05 \), but no significant gender or interaction effects were found (see Tables 5 to 7). Post hoc analysis found that there were several significant mean differences. First, there was a significant difference between Grade 9 and 11 students \( (M=2.08 \text{ and } M=2.80, \text{ respectively}) \). There was also a reported significant difference between Grade 11 students and students in their OAC year \( (M=2.80 \text{ and } M=3.42, \text{ respectively}) \). Finally, there was also a significant mean difference found between Grade 9s and OAC \( (M=2.08 \text{ and } M=3.42, \text{ respectively}) \). Thus, given this finding it appears that students in their OAC year disclosed that they were engaging in more sexual behaviours than students in Grade 11, while Grade 11 students, in turn, reported engaging in more sexual behaviours than students in Grade 9.

With regard to Abstinence, the results from the 3 x 2 MANOVA unveiled marginally significant multivariate effects for grade, Wilk's Lambda =0.776, \( F(4,
295) = 2.682, \( p < 0.05 \). No significant gender or interaction effects were revealed.

Following this significant MANOVA result, a 3 x 2 ANOVA was then conducted separately for the abstinence scores. The results unveiled significant grade effects \( (F(3, 296) = 3.301, p < 0.05) \); as well as significant gender effects \( (F(3, 296) = 5.774, p < 0.05) \).

No interaction effects were found (see Tables 5 to 7). Post hoc analysis found that there were similar significant mean differences between Grades 9 and OAC (\( M = 2.68 \) and \( M = 3.05 \), respectively). Examination of the means showed that compared to OAC students, students in Grade 9 were more likely to report that not having sex was important to them. Furthermore, analysis of the means with respect to gender differences revealed that males (\( M = 3.07 \)) had a higher abstinence score than females (\( M = 2.76 \)); meaning that females reported that abstinence was more important to them than their male counterparts.

Finally, the results from the 3 x 2 MANOVA, with respect to the students’ sexual risk outcomes score, did not reveal any significant gender or grade effects. However, a significant interaction effect was found \( (F(4, 295) = 3.58, p < 0.05) \), meaning, that both the gender and the grade of the students has a significant effect on a student’s sexual risk outcome score. Following this significant MANOVA result, univariate analyses were conducted. The results did not show any significant findings (see Tables 5 to 7).

To investigate gender and grade effects on the dependent variables self-esteem and perception of sexual behaviour as risk behaviour; 3 x 2 ANOVAs were conducted on each. First, ANOVA results from the self-esteem variable found significant main effects for gender \( (F(3, 296) = 6.759, p < 0.01) \), but did not reveal any significant grade differences or interaction effects (see Tables 5 to 7). Further analyses of the means unveiled that
females ($M=23.46$) had a higher self-esteem score than males ($M=21.27$). This result suggests that males had a more positive sense of self than females.

Regarding the risk perception variable, the $3 \times 2$ ANOVA revealed significant gender differences ($F(3, 296)=15.265, p<0.01$), and significant grade differences ($F=6.017, p<0.01$). No interaction effects were found (see Tables 5 to 7). A post hoc Tukey test was conducted to explore how grades differed on reported risk perception. Results revealed significant mean differences between Grades 9 and 11 ($M=2.68$ and $M=3.14$, respectively); as well as between Grades 9 and OAC ($M=2.68$ and $M=3.25$, respectively). Furthermore, examination of the means with respect to gender found that males ($M=3.30$) had a higher risk perception score than their female counterparts ($M=2.75$). These results suggest that when students were asked if they perceived sex to be risky, not only for themselves but for others as well, students in Grade 9 disclosed that they felt that these behaviours were more risky than students in Grades 11 and OAC. In addition, these results also indicate that females perceived sex to be more risky than males.

*Correlational analyses performed on entire sample.* To explore inter-relations among all six composite variables, Pearson bivariate correlations were performed among the main variables of self-esteem, risk perception, abstinence, recent sexual engagement, risk outcomes, and contraceptive use. Table 11 shows the correlational matrix for entire sample ($N=300$). Several significant correlations were found, including a significant negative correlation between self-esteem and risk perception, $r(297)=-0.145, p<0.05$. This correlation suggests that students with a higher self-esteem are also likely to perceive sex to be risky behaviour. However, self-esteem was not found to be
significantly related with recent sexual engagement, \( r(254) = -0.68 \); contraceptive use, \( r(96) = 0.20 \); abstinence, \( r(282) = 0.056 \); and sexual risk outcomes, \( r(104) = 0.133 \).

Second, risk perception was found to have a significant positive correlation with recent sexual engagement, \( r(235) = 0.373, p<0.01 \); as well as with abstinence, \( r(259) = 0.393, p<0.01 \). These results reveal that students who engaged in an increasing degree of sexual behaviour also perceived their behaviour to be less risky. Also, students who reported that abstinence was important to them also reported that the act of having sex for themselves and their peers was more risky. Significant relations were not found between contraceptive use, \( r(87) = -0.017 \); and sexual risk outcomes, \( r(92) = -0.018 \). Third, the results indicate that contraceptive use was significantly positively related to sexual risk outcomes, \( r(95) = 0.526, p<0.01 \), while not significantly related with abstinence, \( r(94) = -0.185 \). These results indicate that those students, who are less likely to use contraception, were more likely to experience a STD and/or to have been pregnant or gotten someone pregnant.

Furthermore, results also revealed a significant positive correlation between recent sexual engagement and abstinence, \( r(252) = 0.359, p<0.001 \). This suggests that students who consider abstinence important did not report engaging in sexual behaviours. Finally, the results showed that abstinence was significantly negatively related to risk outcomes, \( r(102) = -0.280, p<0.01 \). This finding suggests that individuals who reported abstinence to be important also reported fewer negative outcomes from risky sexual behaviours.

Gendered correlational analyses. To answer research questions of Gendered Relations, Pearson correlations were repeated separately for gender groups, each grade,
and each gender per grade. Examination of the correlations among the boys and girls revealed that each had several significant correlations (see Table 12). Specifically, analyses performed exclusively on males \((N=150)\), found significant positive correlations between risk perception and recent sexual engagement, \(r(117)=0.307, p<0.01\); as well as between risk perception and abstinence, \(r(126)=0.317, p<0.01\). In addition, significant relations were found between recent sexual engagement and abstinence, \(r(123)=0.206, p<0.05\); and contraceptive use and risk outcomes, \(r(44)=0.716, p<0.01\). These results suggest that: 1) sexually active males did not perceive sex as risky; 2) males who perceived sex to be risky also considered abstinence to be important; 3) sexually active boys claimed that abstinence was not important to them; and 4) males who are committed to using contraception have experienced less sexual risk outcomes.

In addition, the Pearson correlations found, in boys, contraceptive use to be significantly negatively related to abstinence, \(r(44)=-0.381, p<0.05\); and a significant negative relation between abstinence and risk outcomes, \(r(48)=0.397, p<0.01\). These significant correlations indicate that boys who did not feel that abstinence is important to them have a higher commitment to safe sex practices. As well, boys who reported that abstinence was important to them were more likely to report that they have never had an STD, gotten someone pregnant, or they were not sure.

Pearson bivariate correlations performed exclusively on females \((N=150)\) also found several significant findings. Similar to the findings for males, Table 11 indicates significant positive correlations between risk perception and recent sexual engagement, \(r(116)=0.456, p<0.01\); risk perception and abstinence, \(r(131)=0.415, p<0.001\); and recent sexual engagement and abstinence, \(r(127)=0.518, p<0.01\). In addition, a significant
positive correlation was found between recent sexual engagement and contraceptive use, \( r(45)=0.421, p<0.001 \). These results suggest that if females reported that they perceived sex to be risky, they also reported not to be engaging in recent sexual behaviours, or vice versa. Females, who did not feel that sexual activity was risky behaviour, also were engaging in recent or frequent sexual behaviours. Females, who considered abstinence to be important, also perceived sexual behaviours to be more risky. As well, females who engaged less frequently in recent sexual behaviours also reported that abstinence was important to them. Finally, the significant positive correlation found between recent sexual engagement and contraceptive use suggests that females, who engaged in recent sexual behaviours, also neglected to use contraception.

Fisher’s \( r \) to \( z \) transformations were computed to test if there were significant sex differences in the correlations obtained, when significance was found in both genders. Of the three significant relations examined, two were found to be significant. First, the correlation between risk perception and abstinence was significantly more positive for girls \( (r=0.415) \) than for boys \( (r=0.317; \) Fisher’s \( r \) to \( z = -2.51, p<0.05) \). Lastly, the correlation between recent sexual engagement and abstinence was significantly more negative for females \( (r=0.206) \) than for males \( (r=0.518; \) Fisher’s \( r \) to \( z = -6.57, p<0.05) \).

Interestingly, self-esteem was not found to be significant with any other variables for both the males and females (see Table 12). Specifically, with risk perception \( (r(132)=-0.045, \) and \( r(133)=-0.166; \) respectively); recent sexual engagement \( (r(125)=0.002, \) and \( r(127)=-0.146; \) respectively); contraceptive use \( (r(45)=0.137, \) and \( r(49)=-0.155; \) respectively); abstinence \( (r(136)=0.051, \) and \( r(144)=0.109; \) respectively); and sexual risk outcomes \( (r(49)=0.174, \) and \( r(53)=0.043; \) respectively).
Grade correlational analyses. Tables 13 to 15 show that repeat correlational analysis for each grade (N=100) revealed that there were several significant and similar findings across all grades. First, for all three grades (9, 11, and OAC), risk perception was found to have a positive significant relationship with recent sexual engagement ($r(75)=0.314, p<0.01$; $r(78)=0.290, p<0.01$ and $r(78)=0.376, p<0.01$, respectively). As well as with abstinence ($r(82)=0.326, p<0.01$; $r(87)=0.417, p<0.01$; and $r(86)=0.407, p<0.01$, respectively). These results suggest that students in Grades 9, 11 and OAC who reported to be engaging in recent sexual behaviours did not view them as risky behaviours, or vice versa; that those students who reported not to be engaging in recent sexual behaviours also reported to perceive those behaviours as more risky. Lastly, that those students who indicated that abstinence was not important to them, also perceived sex to be less risky.

Results also revealed that contraceptive use was found to have a significant positive relation with sexual risk outcomes ($r(16)=0.891, p<0.01$, $r(29)=0.366, p<0.05$ respectively) for students in both Grades 9 and 11 (See Table 13 to 14). These findings reveal that for the students in Grades 9 and 11 who acknowledged that they did not always use contraception, were more likely to have been treated for an STD and/or gotten someone or themselves pregnant. Or, conversely, that those students who reported that they use contraceptive practices during sex, also were less likely to report having had an STD or experienced a pregnancy.

Furthermore, Tables 14 to 15 reveal that for students in both Grades 11 and OAC, a significant positive relation was found between recent sexual engagement and abstinence ($r(81)=0.350, p< 0.01$ and $r(84)= 0.450, p< 0.01$, respectively). That is,
students who reported that abstinence was not important to them, also revealed that they also engaged in sexual behaviours, and vice versa. Those students, who did not report to be engaging in sexual behaviours, also felt that abstinence was important to them.

Table 13 shows that for students exclusively in Grade 9, Pearson correlations found contraceptive use to be significantly negatively related with recent sexual engagement, $r(14)=-0.489, p<0.05$; as well as with abstinence, $r(15)=-0.630, p<0.001$. These results suggest that those students who reported they were sexually active also claimed they were using some form of contraception. Similarly, it also suggests that those Grade 9 students who did not feel that abstinence was important to them also reported they used contraceptive practices.

Finally, results indicated that students exclusively at the OAC level were found to have several significant results (see Table 15). First, a significant negative relation between self-esteem and risk perception, $r(89)=-0.239, p<0.01$, was revealed. Examination of these findings suggests that those students with lower self-esteem perceived sex to be risky, or vice versa. Those students with higher self-esteem were less cautious/scared of sex.

Second, Pearson correlations show a significant positive relation between self-esteem and contraceptive use, $r(47)=0.351, p<0.005$. This finding suggests that students with a more positive sense of self (lower self-esteem score), were more likely to report that they were using contraception when engaging in sexual intercourse, or vice versa. Students in OAC with a lower sense of self (higher self-esteem score) reported that they were less likely to be using some form of contraceptive practices when engaging in sex. Lastly, results indicated a negatively significant relation between abstinence and sexual
risk outcomes, \( r(48) = -0.386, p < 0.01 \), meaning, students who disclosed that abstinence was not important to them, were also more likely to report to having had a STD and/or gotten someone or themselves pregnant.

For all three grades (9, 11, and OAC), self-esteem was not found to be significantly related with recent sexual engagement \( (r(85) = 0.114, r(81) = -0.148 \), and \( r(84) = -0.042 \), respectively); abstinence \( (r(94) = 0.073, r(91) = 0.095, \& r(93) = 0.025 \), respectively), and sexual risk outcomes \( (r(19) = 0.121, r(32) = 0.158, r(49) = 0.143 \), respectively).

Correlation analyses performed for each gender per grade. Finally, Pearson correlations were conducted separately for each gender per grade \( (N=50) \). Several similar significant findings were discovered (see Tables 16 to 18). To begin, similar significant positive correlations were found between contraceptive use and sexual risk outcomes for males in Grades 9 and 11 \( (r(12) = 0.891, p < 0.01 \) and \( r(9) = 0.729, p < 0.05 \), respectively). These findings suggest that as Grade 9 and 11 males’ reports of contraception increased, their reports of having had a STD and/or have caused a pregnancy decreased. A significant positive correlation was also found among risk perception and abstinence for males in Grade 11 and OAC \( (r(40) = 0.344, p < 0.05 \) and \( r(43) = 0.311, p < 0.05 \), respectively). Such results suggest that an increase in males’ perceptions of sex as risk-taking was related to higher numbers of importance of abstinence ratings.

Pearson correlations performed exclusively on males in Grade 9, were found to have a significant negative relation between abstinence and contraceptive use, \( r(11) = -0.629, p < 0.01 \). Examination of this finding suggests that for males in Grade 9 who
reported that abstinence was not important to them, also reported that they were using contraception when engaging in sexual intercourse. However, self-esteem was not significantly found to be related between risk perception ($r(42)=-0.099$); recent sexual engagement ($r(42)=0.171$); contraceptive use ($r(12)=0.192$); abstinence ($r(44)=0.006$); and sexual risk outcomes ($r(13)=0.170$; see Table 16).

For males in Grade 11, the results disclosed a significant positive relation between self-esteem and abstinence, $r(42)=0.351, p<0.05$. This result suggests that males in Grade 11 who reported a relatively negative sense of self also reported a relatively high importance of abstinence or vice versa; those boys who had a more positive sense of self felt that abstinence was not that important. Moreover, self-esteem was not found to be significantly related to risk perception ($r(42)=0.283$); recent sexual engagement ($r(37)=0.110$); contraceptive use ($r(9)=-0.082$); and sexual risk outcomes ($r(12)=0.285$; see Table 17).

Finally, when correlations were performed exclusively on males in their OAC year, the results found several significant findings. First, there was a significant positive relation between risk perception and recent sexual engagement, $r(39)=0.402, p<0.01$. This finding suggests that those individuals' who disclosed that they were engaging in sex, also felt that it was not risky to be doing so. Second, a significant negative relation between abstinence and risk outcomes, $r(20)=-0.591, p<0.01$, was found. This suggests that those individuals, who considered abstinence to be important to them, were in turn, experiencing less negative outcomes from sex. Lastly, results showed a significant positive relation between self-esteem and contraceptive use ($r(20)=0.656, p<0.01$). This means that students with a more positive sense of self (lower self-esteem score), also
reported that they were more likely to use contraception when they were engaging in sexual intercourse, or vice versa, that those students with a more negative sense of self (higher self-esteem score), disclosed that they were less likely to use contraception when having sex.

With respect to the nonsignificant findings for males in their OAC year, results revealed that self-esteem was not significantly related with risk perception \( r(44) = -0.256 \); recent sexual engagement \( r(42) = -0.160 \); abstinence \( r(46) = -0.165 \); and sexual risk outcomes \( r(20) = 0.247 \); see Table 18.

Pearson correlations executed exclusively on females in Grade 9 revealed no significant relations, while analyses performed on females in Grades 11 and OAC uncovered significant positive relations between risk perception and recent sexual engagement \( r(40) = 0.450, p < 0.01 \) \& \( r(37) = 0.477, p < 0.01 \), respectively), and risk perception and abstinence \( r(45) = 0.449, p < 0.01 \) \& \( r(41) = 0.472; p < 0.01 \), respectively). As well as, for recent sexual engagement and abstinence \( r(42) = 0.542, p < 0.01 \) and \( r(40) = 0.711, p < 0.01 \), respectively). These findings suggest that females, who felt that having sex was risky for them, were less likely to report engaging in such activities. As well, those girls who reported a relatively high incidence of sexual engagement also reported a relatively low importance to sexual abstinence and sex as a risk-taking behaviour. Furthermore, females in Grades 11 and OAC who believed in abstinence were also reporting that they were less likely to have engaged in sexual activities. Conversely, girls who reported relatively high incidence of sexual engagement also reported relatively low importance to sexual abstinence, and sex as a risk-taking behaviour.
Table 11

*Intercorrelations Between Descriptive Variables for All Students*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students (n = 300)</td>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>1. Self-Esteem</td>
<td>--</td>
<td>-.145*</td>
<td>-.068</td>
<td>.200</td>
<td>.056</td>
<td>.133</td>
</tr>
<tr>
<td>2. Risk Perception</td>
<td>--</td>
<td>.373**</td>
<td>-.170</td>
<td>.393**</td>
<td>-.018</td>
<td></td>
</tr>
<tr>
<td>3. Recent Sexual Engagement</td>
<td>--</td>
<td>.036</td>
<td>.359**</td>
<td>-.025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Contraceptive Use</td>
<td>--</td>
<td>-.185</td>
<td>.526**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Abstinence</td>
<td>--</td>
<td></td>
<td>-.280**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Sexual Risk Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*. Correlation is significant at the 0.05 level (2-tailed)

**. Correlation is significant at the 0.01 level (2-tailed)
Table 12

*Intercorrelations Between Descriptive Variables for All Males and Females*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-Esteem</td>
<td>--</td>
<td>-.045</td>
<td>.002</td>
<td>.137</td>
<td>.051</td>
<td>.174</td>
</tr>
<tr>
<td>2. Risk Perception</td>
<td>-.166</td>
<td>--</td>
<td>.307**</td>
<td>-.182</td>
<td>.317**</td>
<td>.000</td>
</tr>
<tr>
<td>3. Recent Sexual Engagement</td>
<td>-.146</td>
<td>.465**</td>
<td>--</td>
<td>-.178</td>
<td>.206*</td>
<td>-.076</td>
</tr>
<tr>
<td>4. Contraceptive Use</td>
<td>-.155</td>
<td>-.160</td>
<td>.421**</td>
<td>--</td>
<td>-.381**</td>
<td>.716</td>
</tr>
<tr>
<td>5. Abstinence</td>
<td>.109</td>
<td>.415**</td>
<td>.518**</td>
<td>.093</td>
<td>--</td>
<td>-.397**</td>
</tr>
<tr>
<td>6. Sexual Risk Outcomes</td>
<td>.043</td>
<td>-.021</td>
<td>.075</td>
<td>.138</td>
<td>-.026</td>
<td>--</td>
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</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed)*

**Correlation is significant at the 0.01 level (2-tailed)
Table 13

*Intercorrelations Between Descriptive Variables for All Grade 9 Students*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. Self-Esteem</td>
<td>--</td>
<td>-.143</td>
<td>.114</td>
<td>.165</td>
<td>.073</td>
<td>.121</td>
</tr>
<tr>
<td>2. Risk Perception</td>
<td>--</td>
<td>.314**</td>
<td>-.259</td>
<td>.326**</td>
<td>-.277</td>
<td></td>
</tr>
<tr>
<td>3. Recent Sexual Engagement</td>
<td>--</td>
<td>-.498*</td>
<td>.145</td>
<td>-.347</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Contraceptive Use</td>
<td>--</td>
<td>-.630**</td>
<td>.891**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Abstinence</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.421</td>
</tr>
<tr>
<td>6. Sexual Risk Outcomes</td>
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<td></td>
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</table>

*. Correlation is significant at the 0.05 level (2-tailed)

**. Correlation is significant at the 0.01 level (2-tailed)
### Table 14

**Intercorrelations Between Descriptive Variables for All Grade 11 Students**

<table>
<thead>
<tr>
<th>Variables</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>1. Self-Esteem</td>
<td>--</td>
<td>-.052</td>
<td>-.148</td>
<td>-.227</td>
<td>.095</td>
<td>.158</td>
</tr>
<tr>
<td>2. Risk Perception</td>
<td>--</td>
<td>.290**</td>
<td>-.120</td>
<td>.417**</td>
<td>.068</td>
<td></td>
</tr>
<tr>
<td>3. Recent Sexual Engagement</td>
<td>--</td>
<td>.296</td>
<td>.350**</td>
<td>.166</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Contraceptive Use</td>
<td>--</td>
<td>-.045</td>
<td>.366*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Abstinence</td>
<td>--</td>
<td></td>
<td>-.100</td>
<td></td>
<td></td>
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<tr>
<td>6. Sexual Risk Outcomes</td>
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<td></td>
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<td>--</td>
</tr>
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</table>

*Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)
### Table 15

**Intercorrelations Between Descriptive Variables for All OAC Students**

<table>
<thead>
<tr>
<th>Variables</th>
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<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
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<td>Students (n = 100)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Self-Esteem</td>
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<td>-.239*</td>
<td>.042</td>
<td>.351*</td>
<td>.025</td>
<td>.143</td>
</tr>
<tr>
<td>2. Risk Perception</td>
<td></td>
<td></td>
<td>.376**</td>
<td>-.201</td>
<td>.407**</td>
<td>.133</td>
</tr>
<tr>
<td>3. Recent Sexual Engagement</td>
<td></td>
<td></td>
<td></td>
<td>.171</td>
<td>.450**</td>
<td>.211</td>
</tr>
<tr>
<td>4. Contraceptive Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.131</td>
<td>.167</td>
</tr>
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<td>5. Abstinence</td>
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<td></td>
<td></td>
<td></td>
<td>-.386**</td>
</tr>
<tr>
<td>6. Sexual Risk Outcomes</td>
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<td></td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)
Table 16

Intercorrelations Between Descriptive Variables for Each Gender in Grade 9

Boys (n = 150) above diagonal, Girls (n = 150) below diagonal

<table>
<thead>
<tr>
<th>Variables</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-Esteem</td>
<td>--</td>
<td>-.099</td>
<td>.171</td>
<td>.192</td>
<td>.006</td>
<td>.170</td>
</tr>
<tr>
<td>2. Risk Perception</td>
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<td>--</td>
<td>.268</td>
<td>-.275</td>
<td>.292</td>
<td>-.293</td>
</tr>
<tr>
<td>3. Recent Sexual Engagement</td>
<td>.101</td>
<td>.306</td>
<td>--</td>
<td>-.507</td>
<td>.150</td>
<td>-.400</td>
</tr>
<tr>
<td>4. Contraceptive Use</td>
<td>.a</td>
<td>.a</td>
<td>.a</td>
<td>--</td>
<td>-.629**</td>
<td>.891**</td>
</tr>
<tr>
<td>5. Abstinence</td>
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<td>.272</td>
<td>.093</td>
<td>.a</td>
<td>--</td>
<td>-.489</td>
</tr>
<tr>
<td>6. Sexual Risk Outcomes</td>
<td>.a</td>
<td>.a</td>
<td>.a</td>
<td>.a</td>
<td>.a</td>
<td>--</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

*a. cannot be computed because at least one of the variables is constant.
Table 17

*Intercorrelations Between Descriptive Variables for Each Gender in Grade 11*

Boys (n = 150) above diagonal, Girls (n = 150) below diagonal

<table>
<thead>
<tr>
<th>Variables</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-Esteem</td>
<td>--</td>
<td>.283</td>
<td>.110</td>
<td>-.082</td>
<td>.351*</td>
<td>.285</td>
</tr>
<tr>
<td>2. Risk Perception</td>
<td>-.238</td>
<td>--</td>
<td>.132</td>
<td>.294</td>
<td>.344*</td>
<td>.295</td>
</tr>
<tr>
<td>3. Recent Sexual Engagement</td>
<td>-.361*</td>
<td>.450**</td>
<td>--</td>
<td>.158</td>
<td>.169</td>
<td>.128</td>
</tr>
<tr>
<td>4. Contraceptive Use</td>
<td>-.231</td>
<td>-.196</td>
<td>.377</td>
<td>--</td>
<td>-.161</td>
<td>.652*</td>
</tr>
<tr>
<td>5. Abstinence</td>
<td>-.078</td>
<td>.449**</td>
<td>.542**</td>
<td>.033</td>
<td>--</td>
<td>-.084</td>
</tr>
<tr>
<td>6. Sexual Risk Outcomes</td>
<td>.129</td>
<td>-.011</td>
<td>.080</td>
<td>.205</td>
<td>-.069</td>
<td>--</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed)*

**Correlation is significant at the 0.01 level (2-tailed)***
Table 18

**Intercorrelations Between Descriptive Variables for Each Gender in OAC**

Boys (n = 150) above diagonal, Girls (n = 150) below diagonal

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-Esteem</td>
<td>--</td>
<td>-.256</td>
<td>-.160</td>
<td>.656**</td>
<td>-.165</td>
<td>.247</td>
</tr>
<tr>
<td>2. Risk Perception</td>
<td>-.125</td>
<td>--</td>
<td>.402**</td>
<td>-.439</td>
<td>.311*</td>
<td>.221</td>
</tr>
<tr>
<td>3. Recent Sexual Engagement</td>
<td>.015</td>
<td>.477**</td>
<td>--</td>
<td>.112</td>
<td>.222</td>
<td>.274</td>
</tr>
<tr>
<td>4. Contraceptive Use</td>
<td>-.020</td>
<td>-.076</td>
<td>.426*</td>
<td>--</td>
<td>-.214</td>
<td>.266</td>
</tr>
<tr>
<td>5. Abstinence</td>
<td>.252</td>
<td>.472**</td>
<td>.711**</td>
<td>.047</td>
<td>--</td>
<td>-.591**</td>
</tr>
<tr>
<td>6. Sexual Risk Outcomes</td>
<td>-.021</td>
<td>-.056</td>
<td>.182</td>
<td>-.066</td>
<td>.103</td>
<td>--</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)
Results also found that for females in Grade 11, there was a significant negative relation between self-esteem and recent sexual engagement, $r(42)=-0.361, p<0.05$. While no significant relations were found between self-esteem and risk perception ($r(42)=-0.238$); contraceptive use ($r(18)=-0.231$); abstinence ($r(47)=-0.078$); and sexual risk outcomes ($r(18)=0.129$; see Table 17). This finding suggests that females in this grade who had a more positive sense of self (low self-esteem scores) were more likely to report engaging in sexual behaviours or vice versa; as girls’ scores on self-esteem increased (a lower sense of self), they reported less engagement in sexual behaviours.

Finally, Pearson correlations found contraceptive use to be positively significantly correlated with recent sexual engagement for females in their OAC year, $r(24)=0.426, p<0.05$. Examination of this finding suggests that females in their OAC year who disclosed that they were engaging in sexual intercourse, also revealed that they were not using contraception. Self-esteem was not found to be significantly correlated with any other variables (i.e., risk perception ($r(43)=-0.125$); recent sexual engagement ($r(40)=0.015$); contraceptive use ($r(25)=-0.020$); abstinence ($r(45)=0.252$); and sexual risk outcomes ($r(27)=-0.021$)).

Fisher’s r to z transformations were computed to test if there were significant sex and age differences in the correlations obtained. Of the three significant relations examined, none were found to be significant.

Additional Findings

The following section focuses on the research question: “How would you describe yourself?” This section first presents the descriptive statistics; specifically, the frequency counts and percentages for each variable. Second, results from chi-square analyses are
presented to show gender and grade differences. Finally, the specific research hypotheses and related findings are presented.

Descriptive Statistics (Frequency counts and percentages)

Descriptive characteristics for each of the main variables, Tables 19 to 24, show descriptive statistics organized to show results of grade and gender analyses.

Self-complexity variable. The self-complexity variable was created to help determine the complexity of student responses in relation to cognitive development. Students’ scores ranged from 1 to 3 (behavioural/physical, emotional/psychological, to integrated psychological responses, respectively) or 9 (nontangential). Table 19 shows frequency results for gender and grade analyses. Overall, 45% (n=135) of the students’ responses received a score of 3, which represents an Integrated Psychological Response, specifically, with 58% (n=78) of those responses being female and 42% (n=57) of those responses made by males.

Self-descriptions variable. To investigate the attribute or characteristics of the self that were consciously acknowledged by the student, the self-descriptions variable was created. The students’ responses were coded according to the following categories. A score of 1 was given if the student’s responses included reference to peers or social interaction with their peers. The students received a score of 2 if their descriptions made reference to their personal behaviour that reflects moral judgements and conventional behaviour. A score of 3 was given when responses made reference to their physical appearance. And the students received a score of 4 if they referred to their participation in athletic activities. Finally, nontangential responses received a score of 9.
Table 20 shows that 36% \((n=108)\) of students included reference to social interaction with peers. Specifically, 61% \((n=66)\) of those were females, with the remaining 39% \((n=42)\) males, whereas, 21 students \(7\%\) responded with respect to their behavioural conduct. Within that 7%, gender differences were as follows: 2% males \((n=7)\), and 5% females \(n=14\). A total of 56 students' \(19\%\) responses made reference to their physical appearance. Of that 19%, males made up 11% \(n=32\), while females made up the remaining 8% \(n=24\). With respect to athletic participation, only 3% \(n=8\) of the students described themselves in those terms. One percent \(n=3\) of those respondents were male, leaving the remaining 2% \(n=5\) females. Lastly, 36% \(n=107\) of responses were nontangential. Males made up 22% \(n=66\) of those responses, while 14% \(n=41\) were elicited by females.

Valence of personality traits/descriptions variable. The valence of personality traits/descriptions variable is a raw count of positive personality or character traits (e.g., kind, caring, outgoing); negative personality or character traits (e.g., bossy, mean, lazy); or neutral personality or character traits (e.g., calm, average, human) found in the student’s self-description responses. If the same trait was repeated twice, it was only counted once.

First, the number of positive traits was calculated in each of the students' self-description responses (see Table 21). Analysis determined that 61% \(n=184\) of all respondents did not have any positive traits included in their self-descriptions. Therefore, 39% \(n=116\) reported at least one positive trait. Specifically, it was revealed that males made up 55% \(n=101\) of those responses and females made up the remaining 45% \(n=83\). It was found that 24% \(n=72\) of the responses contained one positive trait, 10%
of the responses contained two positive traits, and 4% \((n=13)\) of the responses contained three positive traits. The highest number of positive traits/descriptions found in any one response was five.

Second, the number of negative personality traits/descriptions was calculated (see Table 22). Overall, the majority of findings \((86\%, n=258)\), did not contain negative personality traits. Therefore, only 14% \((n=42)\) reported at least one negative personality trait. A crosstabulation of the frequency of responses revealed no gender differences between males and \((n=135\) and \(n=123\), respectively). Self-descriptions containing one negative trait made up 9% of responses, two negative traits were found in 4% of responses, and finally the highest number of negative traits revealed in any one description was three.

Finally, Table 23 shows the number of neutral personality traits/descriptions found in the student’s self-descriptions. The majority of responses \((n=204)\) did not contain neutral traits/descriptions. Of that 68%, males made up 52% \((n=108)\), while females made up the remaining 48% \((n=96)\). Responses containing a single neutral trait made up 23% \((n=69)\) of the total self-descriptions, with a male/female breakdown as follows \((n=36\) and \(n=33\), respectively). In 6% \((n=19)\) of responses, two neutral traits were revealed, specifically, females making up the majority of those responses equaling 84% \((n=16)\) with males making up the remaining 16% \((n=3)\). Furthermore, in 2% \((n=6)\) of student’s responses, three neutral traits were found and finally, two students responded including four neutral traits in their self-descriptions. Both students were in their OAC year, one male and one female. Therefore, the majority of self-description responses were as follows: 1) positive, 2) neutral, and 3) negative.
Religion/spiritual participation. According to the frequency of religion/spiritual participation, analysis of the students’ responses found that only 5% (n=14) of all students made references to religious or spiritual beliefs. Specifically, 57% (n=8) of those respondents were female, while the remaining 43% (n=6) were males (see Table 24).

Physical appearance. The physical appearance frequency was created to look specifically at whether or not the students’ responses included reference to how they looked. The self-descriptions were given a score of 1 if they made such reference or a score of 0 if they did not. The results discovered that only 23% (n=69) referred to their physical appearance. Of those cases, 55% (n=38) were males and the remaining 45% (n=31) were females (see Table 24).

Behavioural conduct/conventional behaviour. The frequency score titled behavioural conduct found that of all students’ responses, only 9% (n=26) made reference to their behaviour in terms of being appropriate or well behaved (score of 1). Regarding gender differences, of those 9%, 73% (n=19) were female students, and only 27% (n=7) were males (see Table 24).

Confidence component. The confidence component frequency specifically looked at responses that made explicit reference to either being confident, strong-minded, or having a high self-esteem. Analysis revealed that only 5% (n=14) of students’ responses contained such reference. Regarding gender differences, of that 5%, 71% (n=10) were females, leaving 29% (n=4) males (see Table 24).

Popularity. The popularity frequency was created to examine if responses made reference to friends or peers (score of 1). It was found that 16% (n=49) of students’ responses included such references, while 84% (n=251) did not (score of 0). Females
made up 67% \((n=33)\) of these responses, while males made up the remaining 33% \((n=16)\;\text{see Table 24).}

_Scholastic participation._ If the students’ responses included any reference to intellectual competence or marks, etc., then the scholastic participation frequency was given a score of 1. The student’s descriptions of self revealed that out of 300 students, only 53 \((18\%)\) of them included this in their responses. Specifically, 57% \((n=30)\) were female respondents and 43% \((n=23)\) were males (see Table 24).

_Athletic participation._ Lastly, students’ descriptions of self were scored 1 if they made reference to some sort of athletic involvement. Of the 10% \((n=30)\) of students that scored a 1, 67% \((n=20)\) of responses were made by males, while the remaining 33% \((n=10)\) were made by females (see Table 24).

In summary, most self-descriptions of the subjects included reference to their physical appearance, followed by scholastic performance, and then closely followed by popularity reference, athletic participation, behavioural conduct, confidence, and finally, religious/spiritual reference (see Table 24).

*Gender/age effects (Chi-square analyses)*

To investigate gender and grade differences within the variables created, chi-square analyses were performed. Overall, the results from the chi-square analyses revealed a number of significant gender and grade effects. First the significant gender results will be reported, followed by the significant grade differences.

_Gender differences._ Results from the chi-square analyses performed on the complexity variable showed a significant gender difference \(\chi^2 (6, N=150)=15.183, p<.05.\)
Examination of the frequencies (see Table 19), suggest that males were more likely to respond in a nontangential way than females for the complexity variable \((n=17\) and \(n=4\), respectively). A similar gender difference was also found for the self-description variable, \(X^2 (8, N=150)=28.795, p<.05\) (see Table 20). This finding shows that males’ self-descriptions were significantly less likely to contain reference to their behavioural conduct, then females \((n=7\) and \(n=14\), respectively). In addition, Table 24 shows that several significant gender differences were found with respect to the frequency variables. First, gender differences were found for the physical appearance frequency, \(X^2 (2, N=150)=20.583, p<.05\). Specifically, results show that males \((n=38)\) were more likely than females \((n=31)\) to make reference to being physically active in their self-descriptions. As well, gender differences were found in the scholastic participation frequency, \(X^2 (2, N=150)=6.750, p<.05\). These results reveal that females made reference to marks or intellectual abilities more than their male counterparts \((n=30\) and \(n=23\), respectively).

*Grade differences.* To further examine the differences among the variables for each grade, chi-square analyses were also performed. Results obtained for Grades 9 and 11, found significant age effects for the self-complexity variable (see Table 19). A significant age effect was revealed for students in Grade 9, \(X^2 (3, N=100)=9.247, p<.05\) and marginally significant results for students in Grade 11, \(X^2 (3, N=100)=7.206, p<.05\). Table 19 indicates that the self-descriptions for students in Grade 9 were more likely to contain responses that would include only behavioural or physical attributes. In contrast, the results showed that students in Grade 11 were marginally more likely to report nontangential self-descriptions. Similarly, chi-square analyses were performed to assess the
student’s grade differences in the self-description variable. The data showed a significant difference for students in Grade 9, $X^2 (4, N=100)=10.667, p<.05$ and a marginally significant difference for Grade 11 students, $X^2 (4, N=100)=9.310, p<.05$. Table 20, shows the frequency of Grade 9 students’ self-descriptions were more likely to include descriptions of self in reference to their physical appearance. Moreover, Grade 11 students were more likely to respond with reference to peers or social interaction with peers.

Chi-square results for the positive valence variable revealed that Grade 11 students were significantly more likely to have self-descriptions that contained no positive traits, $X^2 (3, N=100)=8.840, p<.05$ than students in the other grades.

With respect to the frequency variables (see Table 24), the results from the chi-square analyses showed that students in their OAC year were more likely to include any reference to intellectual competence or their marks, $X^2 (1, N=100)=4.57, p<.05$. Likewise, the results assessed a marginally significant finding for those same students with respect to the popularity frequency, $X^2 (1, N=100)=3.184, p<.05$, whereas, Grade 9 students in that same frequency were significantly less likely to include such responses, $X^2 (1, N=100)=6.06, p<.05$.

Finally, Grade 9 students also revealed significant findings for the behavioural frequency, $X^2 (1, N=100)=3.840, p<.05$. In addition, marginally significant results were found for the physical appearance frequency, $X^2 (1, N=100)=3.405, p<.05$; the athletic frequency, $X^2 (1, N=100)=3.409, p<.05$; and for the neutral valence variable, $X^2 (3, N=100)=6.738, p<.05$. 
Table 19

*Crosstabulation for Categorical Complexity Variable for Gender and Grade (N=300)*

<table>
<thead>
<tr>
<th>Complexity Scores</th>
<th>Gr.9 ((n=100))</th>
<th>Gr.11 ((n=100))</th>
<th>OAC ((n=100))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M %/ (n^a)</td>
<td>M %/ (n^a)</td>
<td>M %/ (n^a)</td>
</tr>
<tr>
<td>1.</td>
<td>40 (20)</td>
<td>24 (12)</td>
<td>14 (7)</td>
</tr>
<tr>
<td>2.</td>
<td>22 (11)</td>
<td>32 (16)</td>
<td>20 (10)</td>
</tr>
<tr>
<td>3.</td>
<td>28 (14)</td>
<td>48 (24)</td>
<td>56 (28)</td>
</tr>
<tr>
<td>9.</td>
<td>10 (5)</td>
<td>14 (7)</td>
<td>10 (5)</td>
</tr>
</tbody>
</table>

*Note.* *Number of subjects out of 50 in each group who responded accordingly.*

**Score**  
**Definition**

1. = Responses include only a behavioural or physical reply.
2. = Responses include reference to emotional/psychological states.
3. = Response include the integration of mental states/feelings with behaviours.
9. = Responses do not have any reference to the question asked.
Table 20

*Crosstabulation for Categorical Self-Descriptions Variable for Gender and Grade (N=300)*

<table>
<thead>
<tr>
<th>Self-Description Scores</th>
<th>Gr.9 (n=100)</th>
<th>Gr.11 (n=100)</th>
<th>OAC (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>% / (n²)</td>
<td>% / (n²)</td>
<td>% / (n²)</td>
</tr>
<tr>
<td>1.</td>
<td>24</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>(12)</td>
<td>(20)</td>
<td>(15)</td>
</tr>
<tr>
<td>2.</td>
<td>2</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(5)</td>
<td>(1)</td>
</tr>
<tr>
<td>3.</td>
<td>44</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>(22)</td>
<td>(11)</td>
<td>(6)</td>
</tr>
<tr>
<td>4.</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>(2)</td>
<td>(1)</td>
<td>(3)</td>
</tr>
<tr>
<td>9.</td>
<td>30</td>
<td>24</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>(15)</td>
<td>(12)</td>
<td>(27)</td>
</tr>
</tbody>
</table>

*Note.* *Number of subjects out of 50 in each group who responded accordingly.*

<table>
<thead>
<tr>
<th>Score</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>= Responses include reference to peers or social interaction with peers.</td>
</tr>
<tr>
<td>2.</td>
<td>= Responses include reference to personal behaviour that reflects moral judgements or conventional behaviour.</td>
</tr>
<tr>
<td>3.</td>
<td>= Responses include reference to their physical appearance.</td>
</tr>
<tr>
<td>4.</td>
<td>= Responses include reference to their participation in sports activities or abilities.</td>
</tr>
<tr>
<td>9.</td>
<td>= Responses do not have any reference to the question asked.</td>
</tr>
</tbody>
</table>
### Table 21

**Crosstabulation for Categorical Positive Valence Personality Traits Variable for Gender and Grade (N=300)**

<table>
<thead>
<tr>
<th>Positive Valence</th>
<th>Gr.9 (n=100)</th>
<th>Gr.11 (n=100)</th>
<th>OAC (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>% / (n%)</td>
<td>% / (n%)</td>
<td>% / (n%)</td>
</tr>
<tr>
<td>0.</td>
<td>68</td>
<td>48</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>(34)</td>
<td>(24)</td>
<td>(38)</td>
</tr>
<tr>
<td>1.</td>
<td>18</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>(9)</td>
<td>(18)</td>
<td>(8)</td>
</tr>
<tr>
<td>2.</td>
<td>10</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(6)</td>
<td>(4)</td>
</tr>
<tr>
<td>3.</td>
<td>4</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>(2)</td>
<td>(2)</td>
<td>(5)</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* A number of subjects out of 50 in each group who responded accordingly. In addition, scores represents the raw counts of positive traits found in self-descriptions.
Table 22

*Crosstabulation for Categorical Negative Valence Personality Traits Variable for Gender and Grade (N=300)*

<table>
<thead>
<tr>
<th>Negative Valence</th>
<th>Gr.9 (n=100)</th>
<th>Gr.11 (n=100)</th>
<th>OAC (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (n=100)</td>
<td>M (n=100)</td>
<td>M (n=100)</td>
</tr>
<tr>
<td></td>
<td>F (n=100)</td>
<td>F (n=100)</td>
<td>F (n=100)</td>
</tr>
<tr>
<td>% / (n%)</td>
<td>% / (n%)</td>
<td>% / (n%)</td>
<td>% / (n%)</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>0.</td>
<td>92 (46)</td>
<td>90 (45)</td>
<td>88 (44)</td>
</tr>
<tr>
<td></td>
<td>86 (43)</td>
<td>80 (40)</td>
<td>80 (40)</td>
</tr>
<tr>
<td>1.</td>
<td>6 (3)</td>
<td>8 (4)</td>
<td>6 (3)</td>
</tr>
<tr>
<td></td>
<td>14 (7)</td>
<td>12 (6)</td>
<td>8 (4)</td>
</tr>
<tr>
<td>2.</td>
<td>2 (1)</td>
<td>2 (1)</td>
<td>2 (1)</td>
</tr>
<tr>
<td></td>
<td>8 (4)</td>
<td>10 (5)</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td>4 (2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 (1)</td>
</tr>
</tbody>
</table>

*Note.* *Number of subjects out of 50 in each group who responded accordingly. In addition, scores represent the raw counts of negative traits found in self-descriptions.*
Table 23

Crosstabulation for Categorical Neutral Valence Personality Traits Variable for Gender and Grade (N=300)

<table>
<thead>
<tr>
<th>Neutral Valence</th>
<th>Gr.9 (n=100)</th>
<th>Gr.11 (n=100)</th>
<th>OAC (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>% / (n°)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.</td>
<td>78</td>
<td>64</td>
<td>68</td>
</tr>
<tr>
<td>(39)</td>
<td>(32)</td>
<td>(34)</td>
<td>(35)</td>
</tr>
<tr>
<td>20</td>
<td>(10)</td>
<td>(11)</td>
<td>(14)</td>
</tr>
<tr>
<td>1.</td>
<td>12</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>(6)</td>
<td>(2)</td>
<td>(6)</td>
<td>(1)</td>
</tr>
<tr>
<td>2.</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
</tr>
<tr>
<td>3.</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>(1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. *Number of subjects out of 50 in each group who responded accordingly. In addition, scores represents the raw counts of neutral traits found in self-descriptions.
Table 24

*Crosstabulation for Categorical Frequencies for Gender and Grade (N=300)*

<table>
<thead>
<tr>
<th>Ranked Frequency Scores</th>
<th>Gr.9 (n=100)</th>
<th>Gr.11 (n=100)</th>
<th>OAC (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>% / (n^a)</td>
<td>% / (n^a)</td>
<td>% / (n^a)</td>
<td>% / (n^a)</td>
</tr>
<tr>
<td>Physical Appearance</td>
<td>48 (24)</td>
<td>30 (15)</td>
<td>16 (8)</td>
</tr>
<tr>
<td>Scholastic Participation</td>
<td>18 (9)</td>
<td>14 (7)</td>
<td>14 (7)</td>
</tr>
<tr>
<td>Popularity</td>
<td>4 (2)</td>
<td>20 (10)</td>
<td>16 (8)</td>
</tr>
<tr>
<td>Athletic Participation</td>
<td>18 (9)</td>
<td>6 (3)</td>
<td>8 (4)</td>
</tr>
<tr>
<td>Behavioural Conduct</td>
<td>2 (1)</td>
<td>12 (6)</td>
<td>4 (2)</td>
</tr>
<tr>
<td>Confidence Component</td>
<td>2 (1)</td>
<td>6 (3)</td>
<td>4 (2)</td>
</tr>
<tr>
<td>Religious/Spiritual</td>
<td>2 (1)</td>
<td>6 (3)</td>
<td>2 (1)</td>
</tr>
</tbody>
</table>

*Note.* Self-description categorical frequencies are ranked according to the total number of responses.

*a*Numbers of subjects out of 50 in each group who responded accordingly.
Specific Research Questions

Question 1a: Do gender and age differences exist in adolescent self-esteem, reported sexual behaviour, and perceptions of sexual behaviour as risk behaviour?

To investigate any significant grade or gender effects on the dependent variables self-esteem, reported sexual behaviour, and perception of sexual behaviour as risk behaviour; 3(grade) x 2(gender) univariate analysis (ANOVAs) were conducted on the self-esteem variable, as well as on the risk perception variable. The MANOVAs for each of the sexual behaviour variables followed a 3(grade) x 2(gender) design (e.g., abstinence, recent sexual engagement, contraceptive use, and sexual risk outcomes). A significant MANOVA was followed up by univariate analyses, and post hoc comparisons. Regarding self-esteem, the 3 x 2 ANOVA revealed no significant effect on grades or interaction effects, but did reveal significant gender differences ($F(3, 296)=6.759, p<0.01$; see Table 6). Examination of the means revealed that males ($M=21.27$) had a lower self-esteem score than females ($M=23.46$), meaning that females had a lower sense of self than their male counterparts.

Second, results from the ANOVA performed on risk perception unveiled significant grade and gender effects ($F(3, 296)=15.265, p<0.01$ and $F=6.017, p<0.01$, respectively), although no interaction effects were found (see Tables 6 and 7). Exploratory analyses of the gender means revealed that males ($M=3.30$) perceived sex to be less risky than females ($M=2.75$). Post hoc analysis showed significant mean differences between Grades 9 and 11 ($M=2.68$ and $M=3.14$) and also between Grades 9 and OAC ($M=2.68$ and $M=3.25$). Such findings suggest that females perceived sex to be
riskier than males and that older students perceived sex as less risky than younger students.

Lastly, a $3$ (grade) x $2$ (gender) MANOVA was conducted to determine the effect of gender and grade on the conceptually linked reported sexual behaviour variables. The MANOVA revealed significant grade effects on the contraceptive use variable, while marginally significant grade effects on the abstinence and recent sexual engagement variables; but did not reveal any significant gender or interaction effects. Univariate results indicated significant group grade effects for contraceptive use, $F(3, 296)=3.836, p<0.05$; as well as for recent sexual engagement, $F(3, 296)=18.030, p<0.05$. Post hoc Tukey (HSD) pairwise comparison tests were conducted to examine how the grades differed on recent sexual engagement. Results revealed that students in their OAC year ($M=3.42$) participated in sexual behaviours significantly more than students in Grade 11 ($M=2.80$). Likewise, students in Grade 11 ($M=2.80$) engaged in a significantly higher number of sexual behaviours than students in Grade 9 ($M=2.08$). Similarly, with regard to contraceptive use among students, OAC students ($M=0.23$) were significantly more likely to use contraception when engaging in sexual intercourse, than students in Grade 11 ($M=-0.31$).

**Question 1b: Will the relations among these constructs differ according to gender?**

To investigate gender relations among the dependent variables self-esteem, reported sexual behaviour, and perception of sexual behaviour as risk behaviour, Pearson bivariate correlations were performed. Several significant findings were discovered.

Results showed partial support for the hypothesis that a significant relation would exist between sexual behaviour and self-esteem. Regarding the total sample ($N=300$), no
significant relation between a student’s reported sexual behaviour and self-esteem were found. However, bivariate correlational analysis performed on females in Grade 11 found a negative significant relation between self-esteem and recent sexual engagement, \( r(42) = -0.361, p<0.05 \) (see Table 17). This finding suggests that females in Grade 11 (\( N=50 \)) with high self-esteem scores (more negative sense of self), were less likely to report engaging in recent sexual behaviours or vice versa; girls who scored low on the self-esteem score (higher sense of self) were more likely to report engaging in sexual behaviours.

Statistical analyses were performed to determine if relations existed between self-esteem and a student’s perception of risk. Results showed significant support for the hypothesis. Bivariate correlational analysis performed on the total sample (\( N=300 \)), revealed a significant negative correlation between these two variables, \( r(267) = -0.145, p<0.05 \) (Table 11). This finding suggests that students who scored high on the self-esteem scale (low sense of self) were more likely to perceive sexual behaviours as risky, or vice versa; those students with a more positive sense of self (low self-esteem scores) were more likely to view sex as less risky.

Fisher’s \( r \) to \( z \) transformations were computed to test for significant sex differences among the correlations. It was found that the correlation between self-esteem and risk perception was significantly more negative for girls (\( r=-.166 \)) than for boys (\( r=-.045; \) Fisher’s \( r \) to \( z =15.92, p<.05 \)).
Question #2: Will gendered relations exist between adolescents' evaluative (affective) and cognitive aspects of the self-descriptions?

To test this research question stated above, the cognitive complexity score had to be altered from its original coding. For this purpose, responses coded with a score of 9 (nontangential) were recoded as missing data.

To test the relation between a student's self-cognition's and his or her self-esteem score, Pearson bivariate correlations were then performed between the new cognitive complexity variable (self-cognition) and the self-esteem variable (self-emotion). Specifically, correlations were conducted separately for all cases; females, males, Grade 9, 11, and OAC, as well as for each gender per grade. Results obtained only showed the constructs to be negatively marginally significant for females in Grade 9, $r(298)=-.258$ (see Table 25). This result shows that for females in Grade 9, when their cognitive complexity score increases, their corresponding self-esteem scores decreased, meaning that as their self-descriptions increased in cognitive complexity, so does their overall sense of self-worth or self-esteem. No significant relations were found for males.

Question #3: How will the self-views/descriptions of adolescents differ between girls and boys, with respect to interdependent or independent constructs?

To investigate how the self-views/descriptions of adolescents differed with respect to independent or interdependent constructs, the self-descriptions variable, as well as the scholastic participation and popularity frequencies were examined. Specifically, frequency counts and chi-square results were analyzed. Prior to inquiring into the chi-square results, general analyses of the frequency counts were done. Results revealed that with respect to the self-description variable, 61%
Table 25

*Inter correlations Between Self-Esteem and Self-Complexity Scores for All Males and Females Per Grade*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Grade 9 Boys</th>
<th>Grade 9 Girls</th>
<th>Grade 11 Boys</th>
<th>Grade 11 Girls</th>
<th>OAC Boys</th>
<th>OAC Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Complexity &amp; Self-Esteem</td>
<td>0.114</td>
<td>-0.258*</td>
<td>-0.079</td>
<td>0.031</td>
<td>0.156</td>
<td>0.148</td>
</tr>
</tbody>
</table>

*Correlation is marginally significant at p<.10*
of responses including references to social interaction with peers were made by females, while males only responded accordingly 39% (n=41) of the time. Similar findings were disclosed when the frequency counts were examined for popularity. Specifically, 67% (n=33) of the responses that made mention of friends or peers were revealed by females, while males only responded 33% (n=16) correspondingly. Finally, with respect to the scholastic participation frequency, results revealed that 57% (n=30) of the responses that contained a reference to intellectual competence or marks, were made by females, in comparison to 43% (n=23) for males.

Follow-up analyses were also performed, specifically chi-square analyses to determine significant gender/age effects. Results only found a significant gender effect for the scholastic participation frequency $X^2 (2, N=150)=6.750, p<.05$. As stated above, examination of the number of responses having a reference to scholastic ability, were significantly more likely to be made by females (n=30), as opposed to males (n=23).

Chapter Summary

In summary, several significant findings were found with respect to the specific research questions. Both the quantitative and additional findings will be summarized below.

Quantitative Findings

Initial investigation into gender and grade effects in the dependent variables self-esteem, reported sexual behaviour, and perceptions of sexual behaviours indicated that
significant differences did exist. A 3(grade) x 2(gender) ANOVA on the variable self-esteem revealed no grade or interaction effects, and revealed significant gender effects. In line with previous studies, and as expected, examination of the means found that males had a more positive sense of self (lower self-esteem score) than females.

With respect to students' perception of sex as a risk behaviour, results from a 3(grade) x 2(gender) ANOVA revealed significant gender and grade effects, although no interaction effects were found. As predicted, exploratory analyses of the means found that older students perceived sex to be less risky than younger students, and that females perceived sex to be riskier than males.

Finally, contrary to prediction, a 3(grade) x 2(gender) MANOVA conducted on the sexual behaviour variables failed to reveal significant gender differences. However, as expected, significant grade differences were found on the contraceptive variable, whereas marginally significant grade differences were found on recent sexual behaviours. Follow-up univariate analyses indicated that older students engaged in sexual behaviours more than younger students, and that OAC students used contraception more than Grade 11 students.

Further investigation of the data indicated several significant relations among the students' self-esteem score, their reported sexual behaviour, and their perception of sex as a risk behaviour. Contrary to expectation, correlational analyses of the students' scores as a whole (N=300) failed to indicate a significant relation between self-esteem and reported sexual engagement. However, correlational analyses by gender per grade revealed that among females in Grade 11, self-esteem was negatively associated with sexual engagement. Contrary to expectation, females in Grade 11 with a more positive
sense of self (low self-esteem score) were more likely to be engaging in sexual
behaviours. Furthermore, as hypothesized, self-esteem was found to be positively
associated with contraceptive use. Specifically, those students with a more positive sense
of self (low self-esteem score) also reported that they used contraception when engaging
in sexual intercourse, or vice versa; students with a lower sense of self disclosed that they
did not use contraception when having sex.

Finally, in line with previous studies and as expected, self-esteem was found to be
negatively related to a student’s perception of risk. Correlational analyses revealed that
students with a more positive sense of self (low self-esteem score) were more likely to
view sex as less risky, or vice versa; that students with a lower sense of self were more
likely to perceive sexual behaviours to be risky.

Additional Findings

Investigation into the relation between adolescents’ self-emotions and self-
cognitions revealed a marginally significant result. Correlational analyses conducted on
the modified cognitive complexity score and self-esteem found a negatively marginal
significant result for females in Grade 9. This result provides partial support for the
hypothesis that predicted that, as a females cognitive complexity score increased, their
corresponding self-esteem score would decrease.

Finally, in concordance with previous studies and as expected, exploratory
analyses revealed that males’ self-descriptions were more likely to reflect the
independent self-construct, whereas females’ self-descriptions were more likely to reflect
the interdependent self-construct.
To summarize, this chapter presented the research findings from both the quantitative and categorical components of this study. The next chapter discusses the findings in relation to the literature and to present conclusions and recommendations for the study.
CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

Introduction

This study explored adolescents’ views of self, sexuality, and perceptions of risk. The main objective of the study was to gain a better understanding of how adolescents’ self-concept and sexual behaviours relate to one another. Both quantitative and categorical research analyses were used to analyze secondary data received from high school students in Southern Ontario. The numerous findings of the study were insightful and principally highlighted the complexity surrounding adolescents’ inner worlds.

This chapter discusses: 1) main findings within the context of past research in relation to the research questions and corresponding hypotheses; 2) additional findings and possible explanations; 3) implications arising from the results of this study in relation to theory, practice, and future research; 4) the limitations of the study; and 5) overall conclusions.

Main Findings and Support for Hypotheses

Question #1a: Do gender and age differences exist in adolescent self-esteem, reported sexual behaviours, and perception of sexual behaviours as risk behaviours?

As previously mentioned in chapter 2, past research has established that during adolescence, there is a significant drop in self-esteem that occurs in young women, that has not been witnessed to the same extent in young males (Harter, 1999; Martin, 1996; Polce-Lynch et al, 2001; Striegeil-Moore & Cachelin, 1999). The hypothesis, that males would report a more positive sense of self than females, was fully supported by the
findings from this research study. Examination of the means showed that the males scored lower than females on the self-esteem variables, which implies that males have a significantly more positive sense of self than their female counterparts.

In line with past research (Martin, 1996), various explanations can be brought to light to make sense of the present findings. For example, to examine how adolescents experience the changes in their bodies and their sexuality, or how these changes affect their sense of self, Martin (1996) conducted a qualitative study to explore the relations between puberty, sexuality, and sense of self. Her findings revealed that gender-differentiated experiences - such as many old taboos, feelings of shame, guilt, and fear - profoundly shape adolescent experiences of sexuality (Martin). Specifically, for females, she found that the gendered experiences of puberty and sex induce negative feelings and shame about their bodies, particularly breast development and menstruation, whereas for males, it may not be "easy" but their selves emerge more intact. Martin concludes that the gendered cultural discourses that females and males learn, absorb, and use to make sense of the world during puberty and their first sexual experiences, are at the root of these differences, as opposed to the different psychological or biological make-ups of girls and boys.

The hypothesis that significant gender and grade effects would be found in adolescent reported sexual behaviour, again was only partially supported. Significant grade differences revealed, suggest that as adolescents age, there is an increase in their reported sexual behaviour. These results substantiate previous findings from the Youth Risk Behaviour Survey conducted in 1990. This survey found that as males and females age they were more likely to report to having had four or more sexual partners (Luster &
Small, 1994). In addition, a Canadian survey conducted by King, Coles, and King (1991) found a similar trend. Specifically, it was revealed that 26% of Grade 9 students, 45% of Grade 11 students and 69% of university/college students reported having had sexual intercourse at least once (as cited in Woloshyn & Rye, 1995).

Educational researchers have always been interested in examining national rates of pregnancy and sexually transmitted diseases (STD) among adolescents. In their pursuit to further understand Canadian adolescents’ sexual behaviours, Eleanor Maticka-Tyndale, Micheal Barrett, and Alexander McKay (2000) found that Canada has relatively few sources from which to draw national data on sexual behaviours and associated sexual health protection practices. In the few Canadian studies conducted on adolescent sexual and reproductive health, it was found that over the last 40 years, the median age of first intercourse has not only declined, but is now almost the same for females and males (Maticka-Tyndale et al., 2000). Therefore, this finding suggests that there are not significant gender differences for Canadian adolescents. The inability to find significant gender differences with respect to reported sexual participation in this current study, further supports previous findings - that Canadian adolescents are indeed participating in sexual behaviours to roughly the same degree.

Finally, the hypothesis that significant gender and grade effects will exist in teens’ perceptions of sexual behaviour as risk behaviour was supported by the findings of this study. Examination of the means found that, compared to females, males are less likely to perceive sex as risky. Also, it was found that younger adolescents (Grade 9) as compared to older students (OAC), perceived sexual behaviour as risky for themselves and others. These findings support the concerns of many educators, parents, and health
professionals, specifically, concerns regarding the association between a student's participation in risky behaviours (e.g., unprotected sex) and serious health problems (e.g., sexually transmitted diseases; Byrnes, Miller, & Schafer, 1999).

In response to these concerns, the literature on risk-taking is both vast and diverse. In support of this study's significant findings, previous research has shown that at a general level, male participants are more likely to take risks than female participants (Byrnes et al., 1999). However, under closer examination, results indicate that certain topics (e.g., intellectual risk-taking and physical skills) were shown to produce greater gender differences than others (e.g., smoking). In addition, the authors found that the gender gap is apparently growing smaller over time (Byrnes et al., 1999). This finding is significant when you consider that previous research also reveals that the gender differences found over the years in respect with first intercourse is also growing smaller, suggesting that in recent years, males and females are beginning to experience sexual intercourse earlier and at the same ages (Maticka-Tyndale et al., 2000). More research is needed to understand the reasons for the age and gender trends recently revealed, specifically, with respect to the increasing media influences (e.g., Internet).

*Question #1b: Will the relations among these constructs differ according to gender?*

The hypothesis that, for both males and females, a significant positive relation would exist between self-esteem and reported sexual behaviours was only partially supported. Results indicated that only females in Grade 11 had a significant negative relation between self-esteem and reported sexual behaviour. These findings suggest that the more positively girls viewed themselves, the more likely they were to report sexual behaviours or vice versa, the more negative their self-concept, the less likely they were to
disclose engaging in recent sexual behaviours. In contrast, no relation was found between males’ self-esteem and reported sexual behaviours. That is, boys’ view of themselves (whether positive or negative) were not influenced by their reported sexual behaviour or vice versa. Therefore, the hypothesis was not fully supported.

Previous research in the area linking self-esteem to sexual behaviours remains controversial, especially with respect to females. One finding that seems to be best established with respect to self-esteem is that individuals with a lower sense of self are more prone to become susceptible to outside influences, persuasion, and advice; in other words, generally becoming more vulnerable to external influences (Baumeister & Tice, 2001). The results of this study seem to dispute this theory and suggest that for females in Grade 11, an individual with a lower sense of self, would be less likely to engage in sexual behaviours.

The absence of any significant links between males’ self-esteem and sexual activity refutes previous findings that have shown a positive association between sense of self and sexual behaviours. That is, past studies suggest that for males, infrequent sexual behaviour is associated with lower sense of self, or vice versa, meaning that a more positive sense of self is related to higher reporting of recent sexual engagement (Sprecher & Regan, 1996; as cited in Baumeister & Tice, 2001). It is interesting to note that adolescent males who have multiple partners and “casual sex” are more likely to be praised rather than condemned for their behaviours, which is quite the opposite experience for females (Daniluk, 1998). Females, due to the cultural dominant discourses that surround casual sex, or multiple partners, more often than not, find themselves labeled as sluts, or called “easy.” As Specher and Regan (1996) found, male virgins are
often unhappy about being virgins, especially when most of their peers have had sex. In turn, they feel that they have failed in their efforts to be sexually appealing to women (as cited in Baumeister & Tice, 2001, p. 52). It is this negative view of themselves, that leads many males to engage in sexual behaviours, in hopes of raising their sense of self. The significant negative correlation found between self-esteem and reported recent sexual engagement in Grade 11 females, supports this past research.

Such findings seem to deviate from the gender-role socialization theory. Previous findings suggest that females with a more positive sense of self may be more inclined to say no to sexual advances and will be more likely to remain virgins (Sprecher & Regan, 1996; as cited in Baumeister & Tice, 2001, p. 52). According to Baumeister & Tice (2001), females with a more positive sense of self tend to be more assertive and less likely to be persuaded into having sex. In plain terms, it is more difficult to seduce a woman with a more positive sense of self than one with low self-esteem, unless the former wants to be persuaded. Thus, females with a more positive sense of self feel more confident than females with lower self-esteem in saying no, and do not feel the social pressure to engage in sexual activity before they feel ready. However, earlier research has uncovered support for the opposite as well. Specifically, that females with a more positive sense of self are more prone to engage in sexual behaviours than females with low self-esteem. The research behind this result suggests that there is a link between self-esteem and popularity, in that popular females, will have a more active social life, which leads to higher self-esteem which, in turn, may lead to more sexual opportunities, including, presumably, some that will appeal to them (Baumeister & Tice, 2001).
Given the results of this study and the dichotomy of the supportive findings, what comes first; self-esteem or engaging in sexual behaviours? Does a more positive sense of self lead to engaging in sexual behaviours or does engaging in sexual behaviours lend itself to promoting higher self-esteem? As previously stated, females place a high priority on peer acceptance (Cross & Madson, 1997). If their sense of self is intrinsically linked to strong relationships with their friends, could engaging in sexual behaviours make them more popular, which in turn leads to a more positive sense of self? What influence does body image have on an individual’s sense of self and popularity? The implications of the relation between self-esteem, body image, and recent sexual engagement warrants further study in this area.

Previous research in area of body image, self-esteem, and sexual behaviours, report that overall self-image and body image are significant predictors of sexual activity and a higher sexual esteem (Ackard, Kearney-Cooke, & Peterson, 2000; Wiederman & Hurst, 1998). In addition, positive body image was found to be positively related to relationships with others (Ackard et al., 2000). Conceptually, the link between women’s sexuality, body image and physical attractiveness make sense, and are supported by everyday observation (Daniluk, 1993; as cited in Wiederman & Hurst, 1998, p. 272). However, few studies have sought to investigate the topic. The few that have, postulate that females who perceive their bodies more positively, describe themselves as more sexually active than those girls with a more negative body image (Ackard et al., 2000). In line with previous research, it is conceivable to suggest that having a relatively positive view of one’s self (including physical attributes) would allow for greater confidence in relationships, in turn, leading to greater opportunities for sexual involvement and
validation (Wiederman & Hurst, 1998). Body image is a multifaceted construct that influence’s one’s self-image through cognitive, emotive, and behavioural means (Ackard et al., 2000; Wiederman & Hurst, 1998), and is outside the scope of this investigation. However, the possible associations mark it an important addition worthy of discussion and future research.

The hypothesis that a significant negative relation will exist between self-esteem and risk perceptions in both males and females was supported. Findings from Pearson bivariate correlations performed on all cases (both males and females) and on all students in their OAC year revealed a significant negative correlation between these two constructs. Such results suggests that (for both males and females, as well as for students in their OAC year), adolescents’ views of themselves were related to their perception of sex as a risk behaviour. In particular, individuals with a positive self-rating did not perceive sexual behaviour as relatively risky. In other words, adolescents with a negative sense of self, were more likely to report their perception of sexual engagement to be risky behaviour. These findings are consistent with studies, which have found that a more positive sense of self contributes to this “it could never happen to me” view and consequent willingness to take risks (Baumeister & Tice, 2001; Smith, Gerrard, & Gibbons, 1997). Specifically, Smith, Gerrard, and Gibbons (1997) found that individuals with a more positive sense of self were more likely to distort the world in a favourable, desirable direction and hence assume that bad things will not happen to them. Similarly, Boney-McCoy, Gibbons, and Gerrard (1995) found that, in spite of similar levels of risk behaviour, women who reported having high self-esteem reported lower perceived
vulnerability to sexually transmitted diseases than did women with low self-esteem (as cited in Smith, Gerrard, & Gibbons, 1997).

To further support the findings of this study, Burger and Burns (1988; as cited in Baumeister & Tice, 2001, p. 54) explored perceptions of risk and sexual behaviour of female college students. Specifically, they investigated whether women had used contraception during their recent sexual experiences. Their results revealed that the more a woman indulged in thinking such as, "It can't happen to me," the less likely she was to use contraception. The authors suggest that this belief (that bad things happen to other people), may suggest that some women apply this optimistic view to their sex lives. Is this optimistic view carried over from adolescence?

Although the original hypothesis was supported, Fisher’s r to z transformations were performed to test if there were significant sex differences between the self-esteem and risk perception correlation. Results found that the correlation was significantly more negative for girls than for boys. This means that when males’ and females’ sense of self is comparable, males are less likely than females to perceive sex to be risky. Interestingly, when you consider this result in conjunction with the previous significant finding that supports the general consensus that males are more likely to take risks than females (Byrnes et al., 1999) a strong case could be made that refutes the possibility that with respect to risk perception, the gender gap is getting smaller (Byrnes et al., 1999).

**Question #2: Will gendered relations exist between adolescent's evaluative (affective) and cognitive aspects of self-descriptions?**

The hypothesis that gendered relations would exist between adolescent’s self-esteem and self-cognitions was partially supported by the findings. A marginal negative
relation was found between Grade 9 females’ self-esteem score and their cognitive complexity score. This correlation suggests that Grade 9 girls with a low self-esteem score (more positive sense of self) were also more likely to provide cognitively complex self-descriptions. In other words, females in Grade 9 with a more positive sense of self, were more likely to describe themselves in a more complex manner. In contrast, this was not found for females in Grades 11 & OAC, or for any boys.

Previous research in the area of self-cognitions and self-esteem, has found that the self has both a descriptive and an evaluative component to it. As well, it also tends to become more multifaceted over an individual’s lifespan (Marsh et al., 1998; Marsh & Shavelson, 1985). Marsh and Shavelson found that math and reading scores were both substantially correlated with self-concept, which led them to suggest that the higher order structure of the self-concept may be more complicated than previously assumed.

According to Cross and Madson (1997), the self is a cultural and dynamic creation; meaning that, within a framework upheld by cultural behaviours, ideals, structures, and practices, an individual’s self-view, emotions and motivations take shape and form. As well, the self and cognition are innately connected. First, previous research in this area reveals that the content of the self-concept includes how the individuals’ thoughts and beliefs about themselves are represented. Second, information processing affects self-esteem and self-concept (Cross & Madson, 1997).

As previously stated, constructing multiple selves in different roles and relationships is a critical development task in adolescence (Harter, Bresnick, Bouchey, & Whitesell, 2002). Developmental theorists claim that as the adolescent self becomes increasingly differentiated, both the cognitive and social processes contribute to this
proliferation of selves (Harter et al., 2002). Over the passage from early adolescence to late adolescence, previous research has found that as teens develop, the emergence of "abstract systems," which allow one to integrate or resolve seeming contradictions with the self-theory, is a critical developmental difference (Harter et al., 2002).

For example, the tendency to be both optimistic and depressed can be coordinated under higher order abstractions such as moody or temperamental (Harter et al., 2002). As Harter and her colleagues found (2002), self-concepts that contained contradictory attributes did not appear with great frequency among younger adolescents, but did peak for those in midadolescence, only to decline slightly for older adolescents. The findings of this research study did not support those of Harter and others. Specifically, it was found that as males and females progressively got older, the complexity of their self-descriptions also increased.

This study hypothesized that gendered relations would exist between an adolescent’s self-esteem and self-cognitions. Specifically, that females who rate themselves more positively, would also provide a more cognitively complex self-description. As previously stated, this hypotheses was only partially supported. In light of these finding, Chan (2002) suggests that being more cognitively complex, might consequently make an adolescent more sensitive to and more analytical about social cues and interpersonal conflicts, therefore, adopting a more critical attitude towards their own performance, resulting in high performance not being translated into high self-esteem.

Question #3: How will the self-views/descriptions of adolescents differ between girls and boys will respect to interdependent or independent constructs?
The hypothesis that the self-descriptions for boys will more likely reflect the independent self-construct, whereas the self-descriptions of girls will reflect the interdependent self-construct was partially supported. The results revealed that according to frequency counts, females were significantly more likely to have self-descriptions that included references to social interactions with peers more than males. This result further supports the theory that females have more of a tendency to fall within the interdependent construct, with males more likely to reflect the independent construct.

Results showed a significant gender effect for the scholastic participation frequency for females. This finding seems to be more representative of the male independent construct, as opposed to the female interdependent construct, insofar as females' self-description responses made reference to their scholastic abilities and strengths more than the males'. This finding refutes the claims of Markus and Kitayama (1991).

As previously stated in Chapter 2, Markus and Kitayama (1991; as cited in Cross & Madson, 1997, p. 5) claim that one of the major goals for individuals with an interdependent self-construal is to create and maintain relationships with others for a sense of connectedness, whereas, individuals with an independent self-construal are more likely to exhibit a sense of autonomy about themselves and their goals. In general, previous research conducted in this area, has found that men tend to reflect an independent self-construct and as a result, attend more closely to information that highlights their individuality. On the other hand, women are more prone to maintain an interdependent construct, and attend more closely to information concerning relationships.
In general, the current results further support this previous finding.

Additional Findings and Possible Explanations

In addition to reporting about the significant findings that were uncovered in this research study, “nonsignificant” findings may also provide valuable information. The most notable silence in the significant findings was the lack of a significant relation among sexual risk outcomes and risk perception. So what does this silence suggest? This result means that those students who disclosed that they had experienced either a STD, or had gotten someone, or themselves pregnant, also may have disclosed that they did not feel that sexual intercourse was risky behaviour.

Previous research has found that the majority of teens have participated in unprotected sex at least once, with some adolescents revealing they have had unprotected sex with more than one partner (King et al., 1991; as cited in Woloshyn & Rye, 1995). In addition, research has proven that adolescent rates of unwanted pregnancy and sexually transmitted diseases (STD) are hovering at dangerously high levels (Woloshyn & Rye, 1995).

A certain amount of risk-taking is expected to occur during adolescence, and for many, taking part in a single risk behaviour may not have any lasting negative consequences. But what does it say, if Canadian youth are experiencing negative sexual risk outcomes, and still not perceiving their sexual engagement as risky behaviour?

As previous research had revealed, traditional sexuality education curriculum has not had a dramatic impact on behaviour (Kirby, 1985). As researchers have suggested,
there seems to be numerous reasons why increases in knowledge have had limited impact on behaviour. Specifically, Kirby (1985) found that most teens already know the basics and the programs currently being taught, only modestly increase that knowledge, but also that the lack of personalization of the curriculum alienates them and therefore they do not apply the knowledge to their own behaviour. In addition, these findings may also be explained by the "it could never happen to me" mentality that has been previously discussed. It is this view that contributes to adolescents’ increased willingness to take risks (Baumeister & Tice, 2001).

Implications

Implications for Theory

The following is a summary of the theoretical implications of this study. The finding that males have a significantly more positive sense of self than females may be due in part to cultural meanings in regard to gender; particularly the negative discourses that surround women’s bodies and female sexuality (Harter et al., 2002; Martin, 1996). In conjunction with the previous literature, this study's results makes a strong case for the continued research in the areas of self-esteem and sexuality. A fundamental part of the self involves how an individual feels about his or her own body. Brown and Gilligan (1992) have specifically addressed adolescent self-esteem, in particular, girls’ dwindling sense of self. Their studies have found that adolescent females silence what they know, are unhappy with themselves, and increasingly become less interested in math and science. With respect to their bodies, adolescent females often feel objectified and ashamed of their bodies, in turn, this leads them to feel fat, dirty, and ugly (Martin, 1996).
Compared to other life span stages, adolescence shares many cultural meanings about gender and sexuality. Outside of the neonatal stage, puberty is a time with the most rapid period of growth, leaving adolescents to struggle with the integration of their new bodies into their selves (Martin, 1996). It has been postulated that an individual’s sexual well-being is intricately connected with his or her overall well-being (Ackard, et al., 2000; and Laumann et al, 1994; as cited in Martin 1996, p. 11); further, that females’ loss of self-esteem often includes an alienation from their bodies and sexual subjectivity/agency. Martin (1996) strongly holds that the period of adolescence is an important period for the establishment of sexual subjectivity and agency because children are experiencing dramatic changes in their bodies at the same time that they are trying to construct adult selves. Therefore, it is the link between agency and body/sexuality that is necessary to make individuals feel like they can have a sense of control and can make things happen in their lives. A lack of control can lead to making negative choices due to influences from peers and media.

Previous research in the area of self-concept has begun to examine variations in presentations of the self to different people and the development of the false self. Adolescence has widely been referred to as a time of change, challenge and potential (Brinhaupt & Lipka, 2002). Furthermore, the construction of multiple selves in different roles and relationships is a critical developmental task for this period. Therefore, given that all these changes are occurring in the adolescent at the same time that the teen is becoming an adult and experiencing all the physical and bodily changes that accompany puberty, it is an important implication for theory that self-esteem begins to be understood as a multifaceted construct (Brinhaupt & Lipka, 2002).
Implications for Practice

Although this study does not directly address school curriculum, the results can provide a framework, or provide some evidence for the need to create a curriculum that incorporates the whole self, instead of merely focusing primarily on abstinence or pregnancy/STD protection.

The results of this study support previous research that indicates that adolescent females experience a more negative sense of self than males. This has great implications for what we, as educators and parents, teach our young people. Specifically, it creates concern over the discrepancy between what it means to be an adolescent sexual boy and an adolescent sexual girl.

Recently, researchers have stated that the problem is strongly rooted in gendered meanings and social interactions. Therefore, the solution lies in social and cultural changes, specifically, changes in sexual health education and the implementation of gender education to the curriculum (Martin, 1996; Woloshyn & Rye, 1995). Martin (1996) suggests that change in both the pubertal and sex curriculum, taught in a more subjective and experiential approach as opposed to a clinical/biological approach, will allow both adolescent males and females more information in general about the physical and emotional changes that their bodies are experiencing. It is through this better understanding that that they will not feel so uneasy about their bodies and know that what they are experiencing is normal and not to be silenced.

Previous research has documented that a healthy sexuality can be positively influenced by a well-developed sexuality education program (Fisher, 1983; Kirby et al., 1994; as cited in Wolosyn & Rye, 1995). Sexual health education is obviously more
complicated than pubertal education, and unfortunately, there is still a lot of political
debate surrounding what should and should not be addressed.

Traditional programs tend to focus on information only and fail to incorporate
other factors the influence adolescents’ sexual behaviour (Woloshyn & Rye, 1995).
Woloshyn and Rye suggest that by encouraging students to feel positively about sexuality
and not to be ashamed or frightened by it, adolescents will have the time to discover their
own sexual beliefs and values (Woloshyn & Rye, 1995). In addition, Martin (1996)
explains that adolescent girls’ lower sense of self must be seen as a consequence of the
dominant gender discourses that oppress and that teens need to be made aware of this
inequality. By teaching youth about what they learn socially about structured gender and
how that affects them is also important. A new sexuality curriculum is required to teach
an awareness of how beauty is socially constructed and portrayed in fashion magazines.
The underlying hope is that this will help tone down the intensity of personal beauty
critiques and will lead to a different way of thinking about beauty – a way that does not
construct them as personal failures (Martin, 1996).

The present study provides evidence to support the development of a curriculum
for a more encompassing, holistic approach to sexuality education, specifically with
regard to adolescent females, for example, to encourage metacognition skills to help teens
receive a sense of personal responsibility over one’s own learning. As Michelle Fine
(1988), a feminist theorist suggests, the public school sexuality education programs
promote a discourse of female sexuality the suppresses female sexual desire and pleasure.
This lack of discussion not only is problematic, but also particularly disturbing. It is her
suggestion, that educating girls about sexual desire allows them permission to gain a
sense of entitlement to it, creating a positive sense of sexual agency (Fine, 1988). Therefore, girls will feel comfortable having sex when they desire it both emotionally and physically, as opposed to feeling pressured into it.

According to various holistic educators, education should not merely be the acquisition of academic subject matter, but as a part of life itself (Bosacki, 2001; Miller, 1993). Education becomes involved in teaching children how to live. Currently, sexuality education in schools is age/grade based. The present findings that adolescents are in fact engaging in sexual behaviours are in line with previous findings that also document that adolescents are engaging in sexual behaviours earlier than past decades (Jessor, 1998). Although not explicitly examined in the present study, the findings suggest that a holistic approach to sexuality education would work better if it were not age-graded, but instead comprised of age-mixed groups. It would allow the younger adolescents to hear about and learn from the experience of older adolescents in a structured setting (Martin, 1996). Seeing that most teens seem to learn much about sex and puberty from slightly older peers, siblings, and the media, information might better be transmitted between children and adolescents than from adults to adolescents.

The lack of significant findings may also be explained by what Woloshyn and Rye (1995) state as the lack of higher levels of learning that traditional sexuality programs contain, including metacognition and reflective reasoning skills (e.g., thinking about thinking). It is their suggestion that new innovative sexuality programs and models should address both higher and lower levels of learning (such as recall and recognition) in order to encourage youth to adopt sexually responsible behaviours. Specifically, they suggest that the primary objective of such sexuality curriculums should be to promote
healthy sexuality by encouraging adolescents to realize positive outcomes and avert negative outcomes (Woloshyn & Rye, 1995). To encourage youth to explore their individual feelings about human sexuality, an innovative sex education program addresses both lower and higher levels of learning across the cognitive, affective, and psychomotor domains (Woloshyn & Rye). Therefore, in order to translate adolescent “knowing” into “doing,” Woloshyn and Rye suggest referring to Bloom’s learning taxonomies when developing sexuality education programs.

In the absence of consistent and effective sex education programs, the media, specifically the Internet, has arguably become an important influence and leading source of sexuality education (Strasburger & Wilson, 2002). Unfortunately, the body of research investigating the effect that the Internet has on how adolescents learn, or not, is slim at best (Brown, 2000; Steele, 1999; Strasburger & Wilson, 2002). Previous research tells us that each year, American mainstream/network television makes nearly 14,000 sexual references, innuendoes, and behaviours; few of which, involve the use of birth control, self-control, or sexual responsibility (Harris & Associates, 1988; as cited in Strasburger & Wilson, 2002). With the explosion of the Internet, that statistic is now even harder to estimate (Brown, 2000; Steele, 1999).

Clearly, in line with previous research, the case can be made for the need to further investigate the impact of sexual content of the Internet on young preadolescents and teens. Researchers Strasburger & Wilson (2002) suggest that in a society that limits access to teenagers about sexual information, a number of possibilities on how to utilize this powerful influence to promote a healthier view of sex and sexuality come to mind. Specifically, they suggest that: 1) there needs to be widespread advertising of birth
control in the mainstream media; 2) entertainment industry executives need to realize, take responsibility and be held accountable for producing healthy and accurate message about sex and sexuality; 3) sex should be recognized as a healthy and natural part of life, and most noteworthy; 4) there needs to be an incorporation of the principles of media education into existing sex education programs (Strasburger & Wilson, 2002).

Although much is known about adolescent sexuality and the media, little has been proven (Brown, 2000; Strasburger & Wilson, 2002). In the few studies that have been conducted, preliminary results seem to suggest that incorporating media education into the mainstream curriculum may be effective in decreasing teens’ use of drugs (Austin & Johnson, 1997; as cited in Strasburger & Wilson, 2002; Skinner, Maley, & Smith, 2001), as well as youth tobacco use and cessation (Norman, Maley, & Skinner, 2000).

The wide proliferation of interactive technology use by youth has opened up opportunities to engage teens in health promotion using the Internet. In 1995, a large research project called the TeenNet Project; based in the Department of Public Health Sciences, at the University of Toronto, with Harvey Skinner, Chair of the Department of Public Health Sciences, serving as the Principle Investigator, was created to develop innovative youth-friendly websites to address health (TeenNet Project, 2002). The TeenNet project’s goal is to generate tools for engaging youth in health promotion using interactive technology. Specifically, in 1997, the TeenNet project worked directly with youth, health practitioners, and educators to develop an interactive Web site, CyberIsle (cyberisle.org), to assist youth in addressing their physical, emotional, and social health needs (TeenNet Project, 2002). CyberIsle includes components relating to a wide range of health and social issues, with a large focus on tobacco use and cessation. Information
on *CyberIsle* is presented in a nonjudgmental, interactive, and fun environment through quizzes, simulations, fact sheets, self-assessments, personalized feedback, and peer discussion groups (TeenNet Project, 2002). TeenNet has been a pioneer in combining "high tech" development, community mobilization, and action research (Norman et al., 2000).

At any time, place, or moment, individuals become sexual in the same ways that they become anything else (Strasburger & Wilson, 2002). Presently, the TeenNet project, in particular, *CyberIsle*, does not have a Web site specifically created to deal with adolescent sexuality. However, in line with previous research, there is no reason to believe that helping children and adolescents decipher sexual content, and struggle through the suggestiveness and mixed messages of advertising, would have anything but positive results (Strasburger & Wilson, 2002). Furthermore, by incorporating new, youth-friendly interactive technologies with current sexuality education programs, a more integrative curriculum can be had. Therefore, generating new knowledge and a level of personalization that will enhance students' knowledge basis, while at the same time, bridging the current gap between knowledge and practice.

Finally, the open-ended question of this study aims to illustrate the importance of giving adolescents a voice, as well as learning to incorporate their voice into practice, whether it be in an educational setting, a therapeutic environment, or a parent-child relationship. Giving adolescents a voice can been carried out in several ways, for example through the use of language arts (e.g., journal writing, and creative and dramatic arts).
However, as previously reported, many researchers have claimed that adolescence is a critical time with respect to development. In particular, developmentalists, such as Susan Harter and colleagues (2002), highlight how both cognitions and social processes contribute to the cognitive developmental advances that are needed for the proliferation of selves, in turn, allowing the individual to make greater differentiations among role-related attributes. The present findings did not replicate those found by Harter. Specifically, the present study found that students in midadolescence were more likely to report a greater frequency of attributes identified as contradictory and conflicting than younger adolescents and also slightly higher than older adolescents.

As previously stated, outer beauty is known to be a commodity in our culture that teens are evidently still trying to aspire to (Daniluk, 1998; Martin, 1996; Travis & White, 2000). Not surprisingly then, is that most of the self-descriptions contained reference to physical appearance, therefore suggesting that how one looks is very important. This finding can have significant implications for how educators develop sexuality curriculums with respect to bolstering self-esteem, as well as with respect to high risk behaviours, such as dieting and binge eating.

Implications for Future Research

The results of this study may serve as the impetus for future research in the field of adolescent sexuality and self-concept. Findings of this study revealed a significant difference in males’ and females’ sense of self. Previous research has attempted to explain this variance with respect to discourses surrounding gender and puberty. Future research is needed to investigate the specific roles that the media plays in generating such discourses and its effects, but also to determine how the media might be used as a
positive educational forum. For example, is it possible to use the mass media to portray desirable behaviour, utilizing attractive models similar to the target group, to give reasons for modeling that behaviour (Kirby, 2001)? This research could include specifically investigating adolescents’ subjective realities through more in-depth, longitudinal qualitative methods.

Overall, this study aimed to gain a better understanding of adolescents’ sexual behaviours by asking questions that specifically addressed what teens were doing. Further study that specifically addresses why adolescents are participating in the behaviours that they are would prove to be useful for health educators who are developing and promoting programs. As well, research is needed to examine the reasons why adolescents move from being delayers of sexual behaviour to participators. Furthermore, as suggested by Kirby (2001), future research needs to investigate the development and reporting of either objective or subjective measures of the clarity of the norms that are promoted in sexuality and HIV education or the connectedness between program educators and adolescents.

Research completed for this study indicated that constant reflection, identification, intervention, and assessment is necessary to better understand adolescents’ behaviour and perceptions of risk in order to help create and promote a more holistic approach to adolescent sexuality and self-concept. For this reason, it will be an area that is perpetually in need of further research.

The following questions were identified as questions for further reflection:

1. How can the mass media (e.g., interactive technologies) be explored and utilized to help portray desirable adolescent behaviour?
2. As opposed to focusing on what teens are doing, instead investigate why are they doing it?

3. What are the reasons that they begin to behave sexually?

4. Is it possible to measure either the objective or subjective measurements of the norms taught in sexuality education curriculums?

5. How are adolescents and educators connecting in the learning environment?

Limitations of the Study

As previously discussed in chapter 3, a variety of limitations of this study must be addressed and explained. In summary, with respect to self-report data, one limitation of this type of research is that responses have a tendency to be affected by how the individual is feeling or by certain experiences that they may have encountered.

Further, the notion of social desirability must also be taken into consideration as a potential limitation of the study. In particular, the issue of the adolescents responding the way that they think they should respond, as opposed to how they truly feel. For example, with respect to this current study, when students answered the question, “How would you describe yourself?”, many adolescents may have responded with descriptions that were more reflective of how they would ideally like to describe themselves, or how they think others may perceive them, as opposed to how they really are.

This current study analyzed secondary data from the Youth Resilience Questionnaire, specifically investigating individuals’ perceptions and behaviours at the high school level. The original survey included students from both elementary and secondary schools (Grades 5-OAC), however, it excluded the elementary students from
receiving the sexuality measure, which explored individual sexual behaviours and attitudes. As previously stated, sexuality expands across the entire life cycle, and by failing to explore the whole developmental range of an individual, with respect to sexuality, is a huge limitation of this study. A more complete and thorough investigation and understanding of how Canadian adolescents view themselves, their sexual behaviours, as well as their perception of sexual risk-taking, would have been accomplished if the sexuality measures (adapted to be age-appropriate) were given to all participants.

Finally, consideration must be given to the very nature of adolescent sexuality research in general, in particular, to the prevailing societal discourse in the reluctance to accept sexual behaviours in adolescents. This reluctance must be taken into consideration when addressing the limitations of research, particularly with respect to the researchers' personal bias when collecting or interpreting data. Furthermore, due to the contentious debate surrounding the validation, curriculum, and ethical teaching of sexuality education in the classroom, the current difficulties gaining access into the classroom to conduct such studies must also be reconsidered. If the goal as educators, researchers, and healthcare professionals is to educate the whole child, in hope of promoting a healthy adult, then sexuality research should begin to push the boundaries of current research in this area and begin to investigate more of the effect, as opposed to primarily focusing on behaviours.
Conclusions

In sum, this study aimed to explore adolescents’ perceptions of sexuality, risk-taking, and self-concept. This study confirmed and supported previous research that sheds light on the ongoing trepidation regarding the significant drop in the self-esteem of female adolescents. A tremendous amount of emotional, physical, and sexual change occurs during adolescence - change that has been proven to be significantly impacted by the cultural meanings that surround gender and sex (Martin, 1996). The literature to date is overwhelmed by various explanations for this troubling phenomenon. Perhaps findings from this study can help to provide some explanations and ideas for future research that will explore the complex connections between self-esteem and sexuality, and risk-taking in adolescents.

National rates of pregnancy and sexually transmitted diseases of adolescents have always been of great concern to parents, educators, and health professionals. This study replicated previous findings that suggest that as adolescents age, their engagement in sexual activity increases, while their perception of sex as risky behaviour decreases. In addition, results suggest that adolescents with a more positive sense of self were more likely to perceive sexual behaviours as a relatively low risk behaviour. These results are reinforced by past research that reveals that a more positive sense of self contributes to a “it could never happen to me” view and consequent readiness to take risks. When the possible risks for participating in risky sexual behaviours are STDs, pregnancy, or HIV, the importance of bridging the gap between knowledge and practice becomes evident.

Canadian research in the area of adolescent sexual health is fairly limited. The results of this study beg the question, What role can education play to address
adolescents' sexual health concerns, while simultaneously promoting their personal and sexual agency? Although this study does not address school curriculum directly, it does however provide a framework, or provide some evidence for the need to go beyond a one-dimensional program to include a more holistic approach to sexual health education.

Previously, engaging youth in health promotion was seldom considered as part of the solution, however, Canadian researchers have recently begun to tap into this promising approach, specifically, by utilizing the strengths that interactive technologies provide, such as interactivity, tailoring, and immediacy. Through the integration of traditional educational practices and "high tech" innovations, future research may begin to witness a significant reduction in the gap between knowledge and practice. In turn, such educational programs can help to promote adolescent sexuality as a vital, respectable, and healthy component of the self, which will be reflected in healthy adolescent behaviours.

In conclusion, the results from the study surrounding adolescents' self, sexual behaviours, and perception of risk indicate the importance of the continuing need for research in this area, as well as the continuing importance of the educational process. In the future, sexual health educators, researchers, and policymakers must consider the results of this study when developing and conducting sexual health education programs.
References


Skinner, H., Morrison, M., Berovitz, K., Haans, D., Jennings, M.J., Magdenko, L.,


Youth Resilience Questionnaire
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1. How old are you?
   ○ 10 or younger  ○ 11  ○ 12  ○ 13  ○ 14  ○ 15  ○ 16  ○ 17  ○ 18 or over

2. Are you male or female?
   ○ Male  ○ Female

PART KK  Fill in the answer that best describes the way you feel

1. On the whole I am satisfied with my life ...........................................
2. I feel that I have a number of good qualities....................................
3. I am able to do things as well as most people...................................
4. I feel I do not have much to be proud of......................................
5. I feel useless at times........................................................................
6. I feel that I am a person of worth, at least equal with others............
7. I wish I could like myself more......................................................
8. All in all, I tend to feel that I am a failure......................................
9. At times I think I am no good at all................................................
10. I take a positive attitude toward myself...........................................

PART RR  The following questions ask you to think about how yourself and others assess risk.

1. How risky do you believe it is for YOU to be doing the following things?

2. How often are OTHER PEOPLE YOUR OWN AGE looked up to (popular) because they do these things?
5a. How upset would your PARENT(S) be if they found out that YOU were doing the following?

<table>
<thead>
<tr>
<th>Activity</th>
<th>VERY UPSET</th>
<th>UPSET</th>
<th>A LITTLE UPSET</th>
<th>NOT AT ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dieting Constantly</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Drinking Alcohol</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Smoking Cigarettes</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Smoking Marijuana (weed)</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Using other illegal drugs</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Having Sex</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

5b. How upset would your FRIEND(S) be if they found out that YOU were doing the following?

<table>
<thead>
<tr>
<th>Activity</th>
<th>VERY UPSET</th>
<th>UPSET</th>
<th>A LITTLE UPSET</th>
<th>NOT AT ALL</th>
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<tbody>
<tr>
<td>Dieting Constantly</td>
<td>O</td>
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<tr>
<td>Drinking Alcohol</td>
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<tr>
<td>Using other illegal drugs</td>
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<tr>
<td>Having Sex</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

6. How risky do you believe it is for OTHER PEOPLE YOUR OWN AGE to be doing the following things?

<table>
<thead>
<tr>
<th>Activity</th>
<th>VERY HIGH</th>
<th>HIGH</th>
<th>MEDIUM</th>
<th>LOW</th>
<th>VERY LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being different from their friends</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Dieting Constantly</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>Having Sex</td>
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</tbody>
</table>

7. Compared to now, how much has the amount of time you spend doing the following activities changed from when you were younger?

<table>
<thead>
<tr>
<th>Activity</th>
<th>HAVE NEVER DONE IT</th>
<th>DECREASED A LOT</th>
<th>DECREASED A LITTLE</th>
<th>STAYED THE SAME</th>
<th>INCREASED A LITTLE</th>
<th>INCREASED A LOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dieting Constantly</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<td>O</td>
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<td>O</td>
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<td>Having Sex</td>
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<td>O</td>
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<td>O</td>
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</tbody>
</table>

PART VV Fill in the circle that best describes you.

1. Have you ever been on a date? O Yes O No ➔ If No, SKIP to question 4.
2. How old were you when you had your first date? 

- O 10
- O 11-12
- O 13-14
- O 15-16
- O or younger

3. How often do you date?

- O Once per year
- O A few times per year
- O Once per month
- O A few times per month
- O Once per week
- O A few times per week

4. Do you have a boyfriend/girlfriend?

- O Yes
- O No ➔ If No, SKIP to question 7

5. How much time do you spend alone (unsupervised) with your boyfriend/girlfriend PER WEEK?

- O 1 hour
- O 2-4 hours
- O 5-7 hours
- O 8-10 hours
- O 11 hours or more
- O never supervised

(please skip to question 7)

6. If so, where do you spend your time unsupervised together? (choose all that apply)

- O your houses
- O a friend's house
- O school
- O public place
- O other

(please specify)

7. How important is not having sex (i.e. abstinence) to you?

- O very important
- O important
- O somewhat important
- O not at all

8. In the last 12 months how often have you engaged in the following?

A Kissing a boyfriend/girlfriend

- O NEVER
- O ONCE
- O A FEW TIMES A YEAR
- O A FEW TIMES A MONTH
- O A FEW TIMES A WEEK
- O EVERY DAY

B Touching a boyfriend's/girlfriend's genitals

- O NEVER
- O ONCE
- O A FEW TIMES A YEAR
- O A FEW TIMES A MONTH
- O A FEW TIMES A WEEK
- O EVERY DAY

C Touching a boyfriend's/girlfriend's genitals with your mouth

- O NEVER
- O ONCE
- O A FEW TIMES A YEAR
- O A FEW TIMES A MONTH
- O A FEW TIMES A WEEK
- O EVERY DAY

D Sexual intercourse

- O NEVER
- O ONCE
- O A FEW TIMES A YEAR
- O A FEW TIMES A MONTH
- O A FEW TIMES A WEEK
- O EVERY DAY

9. If you have had sexual intercourse, how old were you when you had sexual intercourse for the first time?

- O 10
- O 11
- O 12
- O 13
- O 14
- O 15
- O 16
- O 17
- O 18
- O or over

Never had intercourse (skip to question 17)

14. The last time you had sexual intercourse, what method(s) did you or your partner use to prevent pregnancy? (Fill in all that apply)

- O birth control pills
- O Depo-Provera (injectable)
- O condoms
- O pull out
- O some other method
- O no method was used to prevent pregnancy
- O not sure
15. Over the LAST 12 MONTHS how often have you used a condom during sexual intercourse?
   O always  O more than half the time  O half the time
   O less than half the time  O never

16. How many times have you been pregnant or gotten someone pregnant?
   O not sure  O never  O once  O twice or more
   If yes
   How many children do you have?  O none  O one  O two or more
   How many children do you live with?  O none  O one  O two or more

17. Who have you talked to about contraception / birth control? (Fill in all that apply)
   O doctor  O nurse  O teacher  O parents  O brother/sister
   O friend  O clinic  O pharmacy  O does not apply

18. Have you ever thought about having unprotected sex (i.e., sex without a condom)?  O yes  O no

19. How many times have you been treated for a sexually transmitted disease (STD)?
   O not sure  O never  O once  O twice or more

20. In the PAST 12 MONTHS, have you felt pressure to have sex (e.g., touching, intercourse) even though you did not want to or were not ready?
   O never  O a few times a year  O a few times a month  O a few times week  O every day

21. If you have felt sexual pressure, who have you felt pressure from (Fill in all that apply)?
   O Boyfriend/girlfriend  O Classmate(s)  O Friends  O Older Student
   O Media (e.g. TV, movies/magazines)  O Does not apply  O Other (Please specify)

22. On the following scale of 1 to 7 please select the point that best represents who you are sexually attracted to.
   O I would prefer not to answer this question  O 1  O 2  O 3  O 4  O 5  O 6  O 7  O Not Sure
   Males  Only  Both males and females  Only

23. How comfortable are you with your sexual orientation (who you are sexually attracted to)?
   O Very comfortable  O Comfortable  O Neither comfortable nor uncomfortable
   O Uncomfortable  O Very uncomfortable

24. How often do you spend time thinking about your sexual orientation (who you are sexually attracted to)?
   O almost never or never  O sometimes  O often  O almost always or always

PART YY  Please give us your thoughts on the following question.

1. How would you describe yourself?
Coding Manual

Coding Guide for the Qualitative Component of the Study.

Macrolevel Codes: Three Variables

1. Self-Complexity variable: the self-complexity variable was created to help determine a student’s cognitive complexity score. Responses were coded according to the following criteria.

Score of 1: Behavioural/Physical Responses

Responses include only a behavioral or physical reply to the question “how would you describe yourself?” Further, responses do not refer to mental states or intentional relations. In addition, responses that were stereotypical in nature where given this score.

Eg., “fun, honest, friendly”
“cool”
“attractive”
“short, average marks, like skateboarding”

Score of 2: Emotional/ Psychological Responses

Responses given a score of 2, include reference to mental states, that imply a understanding of a deeper understanding of personal meaning.

E.g., “pretty good, I have a good life and I am happy with it”
“great, I am honest, lovable, nice and I have fun”
“I’m a nice person, who is good in sports and music”

Score of 3: Integrated Psychological Responses

Responses include the integration of mental states/feelings and behaviours, and may also involve responses that contain moral judgements/ references to social norms. In addition, responses include notions of self-reflection and any indication of contradictory traits.

E.g., “I think I am a happy person. Life is good, even when some things get bad sometimes”
“I am a good Christian who is in a loving environment”
“Lazy, lazy bum, and embarrassment”

Score of 9: Non-tangential Responses

Responses that do not have any relevance to the question asked.

E.g., “I fly mutha WHAT!!”
“Irritated with this damn long survey”
“bored”

2. Valence of Personality Traits/Description variable: the valence of personality traits/descriptions is a raw count of traits in the following categories. If same trait is repeated in, then it is only counted once.

CPOS: Number of positive traits (e.g., funny, nice, loving, caring, outgoing, responsible, understanding, enthusiastic, respectful, faithful, leader, good, energetic, friendly, kind, generous)
CNEG: Number of negative traits (e.g., mean, bossy, rude, bully, shy/timid, snobby, deceitful, show off, follower, sarcastic, self-conscious, depresses, moody, aggressive, lazy, stubborn)
CNEUT: Number of neutral traits (e.g., perfectionist, average, human, calm, sensitive, curious, tough, intelligent, independent, normal, quiet, unique, loner, mysterious, healthy, loud, joker, creative, smart, proud, realistic, serious, interesting, easy-going, me, open)

3. Self-Descriptions variable: the self-descriptions variable codes responses with regards to attributes or characteristics of the self that are consciously acknowledged by the individual through language. Responses were coded according to the following criteria. Further, in accordance with previous research, instances where a student responded across a variety of categories, the response was scored according to their first comments in the sentence (Harter, 1999).

Score of 1: Social acceptance

Responses include descriptions of self in reference to peers or social interaction with peers.

E.g.,
“outgoing, smart, interested in new things and I enjoy being different from my school friends. I like to stick out”
“outgoing, Fun, intellectual, funny”
“I am a good typical teenager who is serious but also likes to have fun”
“As a cheerful person w/ little reasons not to like me”

Score of 2: Behaviour conduct/conventional behaviour

Responses include descriptions of self in reference to personal behaviour that reflects moral judgements and conventional behaviour.

E.g.,
“I would describe myself as a good person and a caring person who likes to help people”
“I’m nice, well behaved, short, red hair, french, friendly”
"I am a mature young man who has grown up in a good environment. I have good morals and values and great parents who always support me. I know what is right and wrong and where I want to go with my life."

Score of 3: Physical appearance

Responses include descriptions of self in reference to their physical appearance.

E.g., "dead sexy"
"Tall, dark, very handsome. Green eyes, long dark hair and hazel eyes. Non physically, I'm an amiable person with a good sense of humor and I can make people laugh. I can talk to just about anyone and I'm fairly intelligent"
"female"

Score of 4: Athletic participation

Responses include descriptions of self in reference to their participation in sports activities or athletic ability.

E.g., "I am an athletic, fun, and Christian girl"
"Athletic, fun to be around, funny, SUPER!"
"Good dancer, and basketball player. Loser!!! Single and hating it!"

Score of 9: Non-tangential Responses

Responses that do not have any relevance to the question asked.

E.g., "I'm not going to tell you about myself"
"nice"
"Perfect...my own personal Jesus Christ"

Microlevel Codes: Seven Self-description Frequencies

Responses coded for the frequencies were given either a score of 1 or 0 (they either contained reference to or not, respectively).

1. Athletic participation (responses included interest or participation in sporting activities)
   E.g., "funny, smart, good-looking, athletic"

2. Scholastic participation (responses included any reference to intellectual competence or marks etc.)
   E.g., "I'm very nice, smart, & funny"

3. Social acceptance (responses included reference to friends)
E.g., “I’m outgoing, have a great group of friends, athletic, enjoy my job (swim instructor) average student, a good girlfriend, enjoy sports art, music, friends”

4. Behavioural/conventional conduct (responses mentioned their behaviour in terms of being appropriate or well-behaved)
E.g., “I am a smart girl who has good values and morals. I have a good relationship with my parents which make life really good. I have good relationships w my friends & boyfriend who are encouraging and have a positive effect on my life. I thing I have things really good compared to many and I think I take it for granted.”

5. Physical appearance(responses included reference to their physical appearance)
E.g., “Funny, nice, smart, tall, good looking”

6. Religion/spiritual participation (responses made reference to either having a religious belief or a spiritual nature)
E.g., “well centered grounded person. I know who I am and what I want. I am a genius who is spiritually orientated.”

7. Confidence component (responses explicitly made reference to either being confident, strong minded or having high self-esteem)
E.g., “I am a very self-confident person who can try hard and do well if I put effort into it.”
1. **Names of Investigators**

   Researcher: Jennifer Reynolds  
   Supervising Professor: Dr. Sandra Bosacki  
   Committee Members: Dr. Vera Wolosyn, Dr. Anthony Bogaert

2. **Statement of project goals**

   The purpose of this research project is to explore the relationship between self-esteem and adolescent sexual behaviour. Specific questions to be answered are:

   - What is the relationship between self-esteem, adolescent sexual behaviour, and perceptions of sexual behaviour as risk-taking? How does self-esteem influence adolescents' perception of sexual behaviour as "taking a risk"?
   - Are there gender and age effects in adolescent self-esteem, reported sexual behaviour, and perceptions of sexual behaviour as risk-taking behaviours? Will the relations between these constructs differ according to gender?
   - How are the self-views/descriptions of adolescents related to their self-esteem, reported sexual behaviours, and is there a difference between girls and boys in how they differ in their descriptions?

3. **Summary of present state of Knowledge**

   Over the past generations, adolescents are engaging in sexual intercourse in greater numbers and at younger ages then in the past. When the issue of adolescent sexual behaviour is discussed it is usually viewed from the lens of "problem behaviours" and
“risk behaviours”, where as it is considered as normal and acceptable behaviour among adults (Jessor, 1998).

It a Canadian study conducted in the early eighties, it was found that two-thirds of 18 year olds have had intercourse and the 80% of secondary school students believed that intercourse was acceptable if the couple was in love (Herold, 1984). Furthermore, both Herold (1984) Fisher (1983) indicate the there is an alarming number of adolescents who do not often use effective contraception, particularly when they are beginning a sexual relationship.

“Several psychological issues are related to the adolescent development stage. They include such problems as abnormally low self-esteem, sexual identity formation, and independent self-directed behaviour” (Romeo, 1994, p.645). The consequences of poor decision making are of great concern.

In the past, most of the research in this field has focused on a series of behaviours such as intercourse or contraception use. So in a sense, it has been well studied, but not in the sense sexual behaviour and identity are examined within a larger framework of behavioural choices (Jessor, 1998). “Adolescent sexuality encompasses a range of feelings and behaviours, some of which may put adolescents at risk for pregnancy or sexually transmitted diseases but many of which are part of normative development and the integration of sexuality into one’s sense of self. Thus, limiting research to the risks of sexual behaviour will not be fruitful in understanding sexuality or adolescent development” (Jessor, 1998, p.303). In 1997, Tschann & Adler (as cited in Jessor, 1989) found that sexual identity and self-acceptance may be related to effective contraceptive use. “Adolescents, at least girls, who develop greater sexual self-acceptance are more
likely to communicate with their partners about contraception; and those adolescents who communicate with their partners may demonstrate more effective contraceptive use” (p.304).

Many researchers who have dedicated themselves to the study of the self have come to the conclusion that “two distinct but intimately intertwined aspects of self can be meaningfully identified, self as subject (the I-self) and self as object (the Me-self)” (Harter, 1999, p.6). In 1890, William James (as cited in Harter, 1999) defined the I-self as “the actor or knower, whereas the Me-self was the object of one’s knowledge” (p.6). According to James, the “components of the I-self included (1) self-awareness, an appreciation for one’s internal states, needs, thoughts, and emotions; (2) self-agency, the sense of the authorship over one’s thoughts and actions; (3) self-continuity, the sense that one remains the same person over time; and (4) self-coherence, a stable sense of self as a single, coherent, bounded entity. Components of the Me-self included the “material me,” the “social me”, and the “spiritual me”. (p.6).

The self can be viewed as both a cognitive and social construction. And like many things, have antecedents as well as consequences. During adolescence, the teenager begins to differentiate his/her attributes into multiple selves. At times, this multiplicity can produce concern and confusion over which is the real self (Harter, 1999). “The individuals perceptions of their own physical attractiveness, in relation to the importance that is attached to meeting current cultural standards of appearance, contribute heavily to one’s overall sense of worth as a person” (Harter, 1999, p.13). Findings suggest that individuals who feel that they have attained what our culture deems attractive, are more likely to experience relatively high levels of self-esteem. Conversely, teen’s who fall
short of the cultural standards will suffer from lower self-esteem. Moreover, females, in particular, can be observed with eating-disordered behaviors, many of which are life threatening (Harter, 1999). Sadly, though there seems “to be a steady increase in the reported incidence of male anorectics, from approximately 5% in 1985 (DSM III) to as much as 10% in 1987” (NIMH, 1987, as cited in Romeo, 1994, p.643).

4. Methods – Specific Data to be assessed

For this study, both quantitative and qualitative research methods will be used to analyze the data. I believe that combining these two methodologies will maximize the ability to bring different strengths together in the same research project and provide for a richer picture of adolescent culture. Specific data to be assessed is as follows:

Quantitative:

➢ Health & Nutrition (Part HH)
➢ Self-esteem (Part KK) to Sexual Behaviour (Part VV)

There will be gender and age comparisons completed on the above sections.

Qualitative:

➢ I will be analyzing the open-ended, self-description question, “How would you describe yourself”?

The process of data analysis for the qualitative component of the study will be as follows. Based on Susan Harter’s (1999) theoretical dimensions of the self, I will be using her already established categories to code each self-description. After analyzing each self-description individually, they will be “coded into categories that provide a portrait of the dimensions that are most salient to individuals’ self-representations”
The different types of self-perceptions, and corresponding examples, are as follows.

- Peer acceptance, “I’m very popular with my friends.”
- Physical appearance, “I’m pretty with brown hair and blue eyes.”
- Behaviour conduct/conventional behaviour, “I always listen to the rules – do what my parents/teachers say.”
- Athletic competence, “I’m a great soccer player.”
- Scholastic competence, “I’m a straight-A-student.”
- Job competence, “I really like working with children.”
- Romantic relationships, “I am a very caring boyfriend/girlfriend.”
- Overall global self-worth, “I just like being me.” “I am who I am.” or “I’m just me.”

5. **Anticipated results and their importance / results & educational applications of findings**

The literature indicates that due to early experiences with unhealthy sexual activities, drug-use, alcohol, gambling and difficulties in school, there are as many as one in four children in the United States, or 7 million of those aged 10 to 17 years, that do not reach their full potential. (Dryfoos, 1990). It is my hope that this study will indicate that individual’s with a high sense of self are less likely to engage in risky sexual behaviours; that individual’s who engage in sexual risk behaviours, also engage in other risk taking behaviours; and finally, that there is a large drop in girls’ self-esteem, that occurs during adolescence that boys don’t necessarily experience. Furthermore, it is my hope that the
Appendix C

qualitative component will enrich these findings and indicate that teens that report more sexual behaviours tend to focus more on physical appearance in their self-descriptions.

This study has both theoretical/conceptual and practical/educational significance. By gaining insight into the adolescent culture, theoretically speaking, this study can greatly contribute to the self-concept literature, adolescent literature, psychological and educational literature. The Pedagogical/Practical importance of this study will have an impact on the Teacher, the Learner, the Therapist, and the Curriculum.

My study does not directly address school curriculum, but the results of my study can help to provide a framework, or provide some evidence for further work to be done on creating a new curriculum for adolescents that aims to integrate self-knowledge/understanding with sexual/health conceptual knowledge.

Results of this study will allow for a better understanding of this complex developmental stage. Specifically, how does culture and society shape adolescent sexual development? What is the role of education, and how educator’s can we help teenagers to filter and obtain healthy information that will help them make positive choices? In turn, the results may provide some suggestions for educators and policymakers to create strategies in the classroom, which could improve the students’ knowledge regarding self and sexuality. A part of the curriculum that is currently misrepresented.

Finally, it is also my hope that the results of my study will go to help the adolescent learners themselves. This can be done because the CURA questionnaire provides them with an opportunity to voice their thoughts on important issues that are usually within the “hidden curriculum” and still remain silenced. Giving adolescents a voice is a strategy that allows them to strive for agency and sexual subjectivity.
6. **Requested Number of Participants**

For the purposes of my current research, I request that CURA allow me access to a total of 300 of the high school student’s questionnaires (randomly selected from the larger sample). I request that the break down of these 300 questionnaires be 100 (randomly selected) per grade (nine, eleven, OAC), and 50 per gender in each of these grades, totaling 300. Having access to these 300 questionnaires will allow me to explore the relations among the variables via SPSS, and to also investigate the written responses to the open-ended question regarding self-description.

7. **Project Timelines**

Proposal completion: Summer 2001

Data Analysis: September/October 2001

Thesis Completion: Summer 2002