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An Exploration of the Relationship between Family Functioning and Adolescent Sexual Decision Making Skills

by

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## Dedication

To the communities of rural Nova Scotia for welcoming my research and me so warmly and enthusiastically. Without your support, none of this would be possible.

## Abstract

This study examined the relationship between family functioning, as conceptualized by the FACES III instrument, and adolescents' comfort and frequency communicating about sex, communicating and asserting personal boundaries, and sexual decision making. Quantitative data was collected from 154 Grade 9 students in the North Eastern Nova Scotia region. Gender, family structure, and sexual activity variables were explored. Findings showed that adolescents from balanced families scored higher on sexual decision making, were more comfortable communicating about sex, and communicated more frequently about sex to friends and parents. Females from more adaptive families scored higher on sexual decision making and sexually active adolescents were more comfortable talking about sex and their personal sexual boundaries but spent significantly less time thinking about the consequences of their choices, gathering information, and discussing it with others. Findings help understand adolescent sexual behaviour which is vital for promotion of positive sexual health across the life span.

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# Introduction

*Background*

Healthy sexuality is a positive and life affirming part of being a human being. Sexual and reproductive health is important throughout an individual's life and contributes to overall health and wellness (Ansuini & Fiddler-Woite, 1996). A healthy source of sexual knowledge gives children the capacity to develop a positive self-image, self-awareness, and the capacity to establish satisfying relationships (Health Canada, 1999). During youth and early adulthood, decisions about sexual activity, reproduction, and parenthood become extremely important. Current epidemics of AIDS, Sexually Transmitted Infections (STIs), and teenage pregnancy emphasize the need to educate adolescents about responsible sexual behaviour (Health Canada, 1999). Social environments provided by families, peer groups, communities, and society in general have a major influence on sexual and reproductive health. A healthy start from an early age helps adolescents make healthy and positive choices in regard to decisions on sexual and reproductive health. This research will focus on understanding the familial context and its influence on adolescent sexual health. Specifically, the study will explore family functioning and its influence on adolescent sexual decision-making skills.

The topic of adolescent sexual health is extremely important as initiation of sexual intercourse now occurs at an earlier age. Teens are now far more likely to engage in sex before they finish high school than they were three decades ago. Data indicates that approximately 25% of Canadians will have had sexual intercourse by the age of sixteen (McKay, 2000). Moreover, not only are increasing numbers of teenagers becoming sexually active, but they are also engaging in risky sexual intercourse. Researchers have

defined risky adolescent sexual intercourse as multiple partnering, no condom use, and an early age of first intercourse (Moore, Manlove, & Glei,1998; Wellings, Field, Johnson, & Wadsworth, 1994; Wellings, Mitchell, Johnson, & Wadsworth, 1998). Risky sexual behaviours have long-term repercussions, which can lead to deleterious effects on both the physical and mental health of the adolescent. Potential ramifications of early sexual contact, such as teen pregnancy, STIs, as well as emotional injury (Health Canada, 1999), warrant a need for increased emphasis on educating adolescents about sex so they can make informed decisions and avoid negative health outcomes (Rosenthal & Feldman, 1999).

*Statement of the Problem*

Making healthy and responsible decisions about sexual activity during the adolescent years can have immediate and lasting implications for overall health outcomes. How adolescents make decisions about their relationships, abstaining or participating in sex, and protecting themselves and others from sexually transmitted diseases and pregnancy is influenced by numerous factors. Parents, peers, the media, access to education and services, and a host of other sources influence decision making and subsequent health outcomes. Understanding how young adolescents make decisions to engage in early sexual activities is vital for intervention efforts aimed at fostering positive youth development and reducing the negative outcomes of adolescent sexual behavior.

Adolescents rate sexual health education as one of their most important educational needs (Cairns, Collins, & Hiebert, 1994). Schools are identified as an attractive and effective location in which to provide youth with sexual health education.

Although not ideal due to religious and cultural biases, schools are in a unique position to provide adolescents with the knowledge and skills they need to make healthy decisions about their sexuality throughout their lives (Health Canada, 2004). However, Giami, Ohlrichs, Quilliam, Wellings, Pacey, and Kevan (2006) question whether or not schools are an appropriate environment for sexual health education. The researchers question whether sex education in schools today is sufficient in responding to the changing attitudes to sex and sexuality in the 21st century. Sexual health education does not come without its challenges. Worldwide, many schools still provide no sex education; some countries have no statutory requirement for sex education or provide sex education only for pupils well over the age of puberty (Social Exclusion Unit, 1999). Issues of access, diversity, inconsistent delivery and content, and a limited number of properly trained sexual health educators to deliver the content, puts sexual health education in a position of much growth and improvement. The challenges and barriers associated with the provision of sexual health education highlight the inconsistent delivery of accurate information to adolescents.

Although the current state of sexual health education may seem precarious, this does not disregard the enormous growth of sexuality education over the past four decades. From programming focused solely on preaching abstinence and moral absolutist principles (McKay, Pietrusiak, & Holowaty, 1998), to a call for more comprehensive approaches that emphasize sex-positive messages and the importance of deliberate and informed decision making (Finklea, Gruendemann, & Harris, 2004), sexuality education has come a long way. Despite this, sexual health education is still in the midst of struggles. Reviews have shown significant restrictions in the amount of time spent on sex

education, themes covered, and open discussion of social, religious, and cultural aspects in sexuality in schools (Giami et al., 2006). Sex education in schools today focuses on the technical aspects of sex and is restricted to the physiological processes and negative consequences of engaging in sexual activity – emotional and relational aspects are very limited (Giami et al., 2006).

A call for a more comprehensive approach to sexual education focused on informed decision making (Health Canada, 2004) is supported by evidence indicating that while the majority of adolescents in North America hold values consistent with responsible sexual conduct, many are unable to translate these attitudes into positive personal behaviours (Christopher & Cate, 1984; McCabe & Killackey, 2004). Further, most programs aimed specifically at reducing sexual activity are found to be ineffective (Franklin, Grant, Corcoran, Miller, & Bultman, 1997). While youth have an abundance of information on sexual issues from a proliferation of media they are exposed to each day, they often do not have the skills to deal appropriately with difficult sexual situations (Gullotta, Adams, & Markstrom, 2000). Adolescents need to develop skills for dealing appropriately and effectively with difficult sexual situations. A skill set for sexual decision making not only aids in the development of positive sexual outcomes (e.g. positive identity style, self respect, respect for others, positively functioning relationships, and rewarding sexual experiences), but also deters negative sexual outcomes (e.g. unwanted pregnancy, STIs, sexually inappropriate coercion, and dysfunction).

The *Canadian Guidelines for Sexual Health Education* (Health Canada, 2003) include skills as a crucial element within the framework of educating youth on healthy and positive sexual health across the life span. According to the guidelines, acquiring

developmentally appropriate skills is necessary to achieve personal sexual health goals. Including in this skill set, the guidelines promote opportunities to "learn how to raise, discuss and negotiate sexual health issues with partners….learn how to negotiate and set sexual limits…how to articulate their concerns and to negotiate and consistently use safer sex practices…" (Canadian Guidelines for Sexual Health Education, 2003, p.16). The importance of adolescents acquiring these skills for positive health outcomes is highlighted in the literature. Research has linked communication with partners to increased condom use (Shoop & Davidson, 1994), and has found the construction of boundaries and the communication of those boundaries to potential sexual partners (Michels, Kropp, Eyre, & Halpern-Felsher, 2005) as important aspects of adolescent healthy sexual decision making.

The importance of developing a sexual decision making skill set is further highlighted in programs aimed to educate teens about responsible sexual behaviours. Prominent researchers in the area of sexual health education argue that positive outcomes for adolescents are most likely to occur when programs effectively integrate knowledge, motivation, and skill building opportunities (Fisher & Fisher, 1992). Interventions focused on improving decision making skills and stimulating thinking around not only sexual issues, but also on relationships and communication on adolescent issues, may facilitate more competent decision making (Commendador, 2007). Furthermore, a comprehensive approach to sexual health considers education as a shared responsibility between parents and other influential systems on adolescents' behaviours. Sexual health education needs to be integrated in order to be successful. Informal sources, such as

parents, complement and reinforce education received by adolescents in schools and through other informal sources, such as the media and peers.

*Role of the Family*

Young people, sexually active or not, are influenced by a range of individual and social-economic factors. However, it is within the context of the family that sexual socialization occurs earliest. Many researchers contend that family members play a vital role on the sexual socialization of youth (Fox & Inazu, 1980). Families are the first important influence in a child's sexual health (Health Canada, 1999) as they set and provide the context in which the child flourishes. The family is part of an individual's primary social group, and as such, is the first socializing agent to affect the individual's attitudes and behaviours. Directly or indirectly, parents provide the most immediate support and influence for their children. Parents are the primary socializers of their children, and as such, they are the most important and essential source of knowledge and information on sex.

Given their influential role in the socialization of their children, parents have the potential to be an effective tool in reducing risky sexual behaviour in their teenage children. A mounting body of evidence indicates a strong relationship between the way parents interact with their children and their children's social and physical health (Morrison, Moore, Blumenthal, Coiro, & Middleton, 1994). Positive family relationships are vital to the health of youth. Adolescents who do not feel close to their parents are more likely to suffer from problems with self-esteem, depression, and engage in risk behaviours, including risky sexual behaviours, such as early initiation of sexual intercourse (Resnick, Bearman, Blum, Baurman, Harris, Jones et al., 1997). Research

supports that positive family relationships have an important role in adolescent sexual health and development.

The literature on sexual health education clearly highlights a need for an evolution in order to address the needs of the 21st century adolescent. Methods to educating adolescents on sexual health call for a comprehensive and integrated approach. Sexual health education programming in schools cannot stand alone to ensure positive sexual health outcomes for their adolescent students. Parents provide an integral source of influence in their adolescent children's positive sexual health development and maintenance. Although they might not want to be told not to have sex, teens often want their parents and other adults to help them understand sexuality and to guide them in their own sexual decision making (Aquilina & Bragadottir, 2000).

The focus of sexual health education also needs to be more inclusive. Literature addressing adolescent sexuality needs to broaden its focus beyond risks and consequences of sexual activity; often emotional and relational aspects of sexual relationships are ignored (Health Canada, 1999). Research shows that adults often assume that informing adolescents about the risks associated with sexual activity will enable them to make safer choices (Rock, Ireland, & Resnick, 2003). However, according to Schaalma, Abraham, Gillmore, and Kok (2004) an increase in knowledge is not enough to shape behaviours - imparting accurate knowledge about sexuality is not enough to prevent young people from taking unnecessary risks. Emphasis needs to be placed on general decision making and communication skills as these are believed to help adolescents avoid risk taking behaviours and to communicate decisions to their partners more effectively (Commendador, 2007).

Since families provide a supportive physical and psycho-social environment that enables all their members to maintain their sexual and reproductive health (Health Canada, 1999), it is prudent to gain a better understanding on which aspects of the family context support and influence this development.

*Purpose of the Study*

The purpose of this study was to explore the relationship between the level of family functioning, as described by the Olson Circumplex Model, and adolescent sexual decision making skills, as described by communication, boundary assertion and setting, and sexual decision making skills. This research had four objectives:

1. To describe the level of family functioning of participants' families.
2. To describe the relevant sexual decision-making skills of participating adolescents, namely comfort communicating about sexuality with their partner(s), frequency of communication around sexual topics with friend(s), parents, and/or partner(s), comfort asserting and communicating personal boundaries to their partner(s), and sexual decision making.
3. To determine whether or not there is a relationship between level of family functioning and adolescents' sexual decision making skills.
4. To describe influential contextual and structural variables on the relationship between family functioning and adolescent sexual decision making skills.

Specific research questions are addressed at the conclusion of the review of the literature chapter.

This study will limit its focus to family variables specific to the Olson Circumplex model, namely cohesion and adaptability. Socio-demographic variables will be presented, however, only gender, family structure, and current sexual activity will be considered in analysis.

## The Circumplex Model

In family systems theory, patterns of relationship and interaction are conceived as circular. The developmental needs and behaviours of one family member is seen as influencing and being influenced by the developmental needs and behaviours of other family members, in a circular manner. This conceptualization of the family goes beyond unilateral concepts, such as parental warmth or parental control, to more reciprocal relational constructs that apply to the family system as a whole. Cohesion and adaptability were chosen as family process variables in this study because they are systems concepts. They are part of the Circumplex Model of Marital and Family Systems - a holistic model of family functioning. This chapter will present an overview of the model, its core concepts and hypotheses, limitations, as well as a discussion around its assessment tools.

### *The Circumplex Model*

#### *Overview of the Model*

The Circumplex Model of Marital and Family Systems was developed in an attempt to bridge the gap between research, theory, and practice. The Circumplex model, as a tool for family assessment, has been the most successful in promoting integration among family practice, theory, research, and in stimulating a professional dialogue between family clinicians and researchers (Green, Harris, Forte, & Robinson, 1991).

Theoretical and clinical research generally supports the construct validity of the Circumplex model - the model measures the constructs it claims to be measuring. General Systems Theory (Buckley, 1967) provides the basic tenets for the Circumplex Model.

The Model has been used in hundreds of research projects and has guided clinical practice in a wide variety of family treatment settings (Carnes, 1987; Flores & Sprenkle, 1989).

The Circumplex Model of Marital and Family Systems is organized by two main dimensions of family life: adaptability and cohesion. Communication is considered a facilitating dimension because it enables movement on both the adaptability and cohesion dimensions. The adaptability and cohesion dimensions are related in a curvilinear manner. Optimal family functioning exists in families who achieve balanced, or moderate, rather than extreme (either high or low) levels of adaptability and cohesion. These three dimension - cohesion, adaptability, and communication - have been the focus of separate theoretical models highlighting their value and importance for understanding and treating martial and family systems. The dimensions of cohesion and adaptability combine to produce a model that identifies sixteen family systems that fall in balanced, mid-range, and extreme regions of functioning.

The Circumplex Model is a dynamic model. It accommodates the assumption that a family system develops and changes over time (Olson, Russell, & Sprenkle, 1989). The Circumplex Model builds on the concept of 'systemic change' on the continuum from morphogenesis (continual change) to morphostasis (no change). The model assumes that families constantly change to adapt to situational and developmental demands and stresses. This change is seen as beneficial to the family system. If one family member desires to change, the entire family system must adapt. The potential for change is considered very important to the family system. Olson (1989) conceptualizes optimal

functioning families as those that maintain a balance between stability and change and are able to change when appropriate.

*Adaptability (Change)*

Family adaptability is the extent to which the family system is flexible and able to change. Adaptability is defined as "the ability of a family system to change its power structure, role relationships, and relationship rules in response to situational or developmental demands" (Olson, 1989, p.12). Concepts related to family adaptability include family power (assertiveness, control, discipline), negotiation styles, role relationships, and relationship rules. Please see Table 1 for a summary of the dimensions of family adaptability.

The four levels of adaptability range from *rigid* (very low) to *structured* (low to moderate) to *flexible* (moderate to high) to *chaotic* (very high). The most functioning and viable family systems are seen to be those in the central areas of the adaptability dimension. These levels are identified as "*flexible*" and "*structured*" and these families are considered balanced on the adaptability dimension. The extreme levels are families with too much change ("chaotic") at one end or not enough change ("rigidity") at the other. Balanced, or well functioning families, are able to change or resist change when appropriate and are characterized by egalitarian leadership, successful negotiation, role sharing, few implicit rules, and more explicit rules (Olson, McCubbin, Barnes, Larsen, Muxen, & Wilson, 1989). Rigid family systems resist change and are highly controlling, while chaotic families are so changeable that they lack stability, roles are unclear, and leadership is erratic or limited.

Table 1

*Family Adaptability Dimensions*

| | Chaotic (Very High) | Flexible (High to Moderate) | Structured (Moderate to Low) | Rigid (Very Low) |
|---|---|---|---|---|
| **Assertiveness** | Passive and Aggressive styles. | Generally assertive. | Generally Assertive. | Passive or Aggressive styles. |
| **Control** | Limited leadership. | Egalitarian with fluid changes. | Democratic with stable leader. | Authoritarian leadership. |
| **Discipline** | Laissez faire. Very lenient. | Democratic. Unpredictable consequences. | Democratic. Predictable consequences. | Autocratic. Overly strict. |
| **Negotiation** | Endless negotiations. Poor problem-solving. | Good negotiation; good problem-solving. | Structured negotiations; good problem-solving. | Limited negotiations; Poor problem-solving. |
| **Roles** | Darmatic role shifts. | Role making and sharing. Fluid change of roles. | Some role sharing. | Role rigidity. Stereotyped roles. |
| **Rules** | Dramatic rule shifts. Many implicit rules. Few explicit rules. Arbitrarily enforced rules. | Some rule changes. More implicit rules. Rules often enforced. | Few rule changes. More explicit than implicit rules. Rules usually enforced. | Rigid rules. Many explicit rules. Few implicit rules. Strictly enforced rules. |
| **System Feedback** | Primarily positive loops; few negative loops. | More positive than negative loops. | More negative than positive loops. | Primarily negative loops; few positive loops. |

*Cohesion (Togetherness)*

Family cohesion is defined as "the emotional bonding that family members have toward one another" (Olson, Russell, & Sprenkle, 1989, p. 9). Specific concepts of family cohesion are emotional bonding, boundaries, coalitions, use of time and space, friends, decision-making, interests, and recreation. The four levels of cohesion rage from *disengaged* (very low) to *separated* (low to moderate) to *connected* (moderate to high) to

*enmeshed* (very high). A summary of the dimensions of family cohesion is provided in Table 2.

Olson hypothesized that the central levels of cohesion ("separated" and "connected") are optimal for family functioning, whereas the extremes ("disengaged" and "enmeshed") are seen as problematic. *Enmeshed* family systems are described as having "too much consensus within the family and too little independence" (Olson et al., 1989, p.11). These family members are very dependent on one another and loyalty is demanded. *Disengaged* family systems show limited attachment and commitment to fellow family members. Olson et al. (1989) describes these families as having extreme emotional separateness where family members often "do their own thing" (p.11) and have separate interests.

Table 2

*Family Cohesion Dimensions*

| | **Disengaged (Very Low)** | **Separated (Low to Moderate)** | **Connected (Moderate to High)** | **Enmeshed (Very High)** |
|---|---|---|---|---|
| **Emotional Bonding** | Very Low | Low to Moderate | Moderate to High | Very High |
| **Independence** | High independence of family members. | Moderate independence of family members. | Moderate dependence of family members. | High dependence of family members. |
| **Family Boundaries** | Open external boundaries. Closed internal boundaries. | Semi-open external and internal boundaries. Clear generational boundaries. | Semi-open external boundaries. Open internal boundaries. Clear generational boundaries. | Closed external boundaries. Blurred internal boundaries. Blurred generational boundaries. |
| **Coalitions** | Weak coalitions. | Marital collation clear. | Marital coalition strong. | Parent-child coalitions, usually a family spacegoat. |
| **Time** | Time apart from family maximized (physically and/or emotionally). | Time alone and together is important. | Time together is important. Time alone permitted for approved reasons. | Time together maximized. Little time alone permitted. |
| **Space** | Separate space both physically and emotionally is maximized. | Private space maintained; some family space. | Family space maximized. Private space minimized. | Little or no private space at home. |
| **Friends** | Mainly individual friends seen alone. Few family friends. | Some individual friends. Some family friends. | Some individual friends. Scheduled activities with couple and family friends. | Limited individual friends. Mainly couple or family friends seen together. |
| **Decision Making** | Primarily individual decisions. | Most decisions are individually based, able to make joint decision on family issues. | Individual decisions are shared. Most decisions made with family in mind. | All decisions, both personal and relationships must be made by family. |
| **Interests and Recreation** | Primarily individual activities done without family. Family not involved. | Some spontaneous family activities. Individual activities supported. | Some scheduled family activities. Family involved in individual interests. | Most or all activities and interests must be shared with family. |

*Communication*

Family communication, the third dimension in the Circumplex Model, is viewed as a critical dimension that can facilitate a family's movement along the levels of adaptability and cohesion. Effective communication skills include sending clear and congruent messages, empathy, supportive statements, and effective problem-solving skills. Conversely, poor communication skills restrict movement on the other two dimensions. Being highly critical and sending unclear messages restricts the ability of family members to communicate their emotions. A family's positive communication skills help them "facilitate and maintain balance on the two dimensions" (Olson et al., 1989, p.22). Olson et al. (1989) hypothesize that positive communication skills not only allow families to achieve balanced levels but enable families to change their levels of adaptability and cohesion more easily. Thus, a lack of communication skills or negative communication is believed to inhibit the family's ability to change. The model posits that balanced families will have more positive communication skills.

The four levels of adaptability and the four levels of cohesion result in a matrix forming a typology of 16 different family types which are collapsed further into three major categories of family functioning: balanced families, mid-range families, and extreme families.

The three major categories of family functioning each occupy a clearly defined zone within the matrix. The four balanced family types cluster at the center. Families within this area are balanced on both adaptability and cohesion. The eight mid-range family types occupy a concentric area surrounding the balanced types. These families are balanced on only one of the major dimensions and function at one of the extreme levels

on the other. The four extreme family types occupy the corners of the matrix. These families function outside of the optimal or balanced zones on both adaptability and cohesion. Figure 1 below depicts the Circumplex Model.

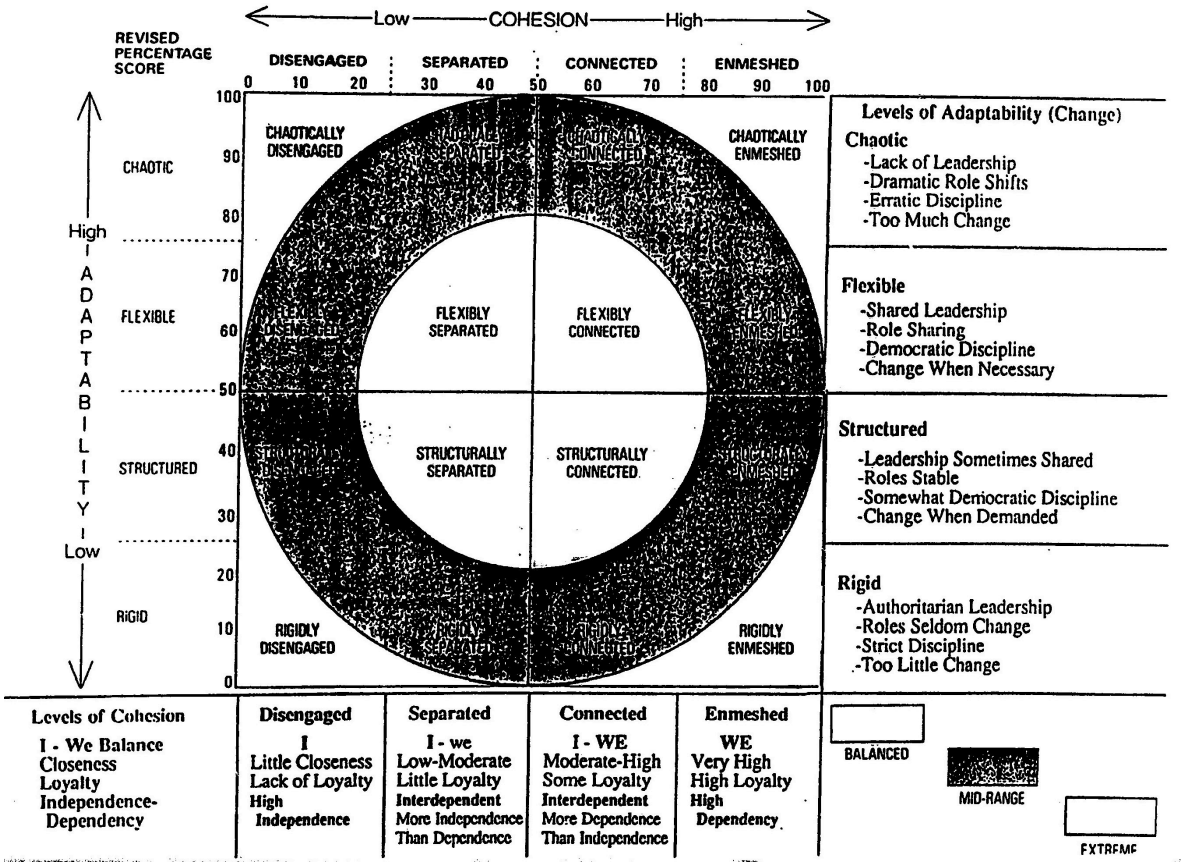


*Figure 1.* The Circumplex Model

*Core Concepts: Balanced and the Curvilinear Dynamics of the Circumplex Model*

Two concepts are central to the understanding of the Circumplex Model – the notion of balance and the concept of curvilinearity.

*Balance*

The central levels of cohesion (separate and connected) and adaptability (structured and flexible) are considered the optimal levels of family functioning, as these families are seen as being balanced. A balanced family on the dimension of cohesion assumes that family members can be both autonomous and close with other family members. Family members are both independent and connected to their family. A balanced family on the dimension of adaptability is a family that provides a solid foundation of stability but is flexible and able to adapt when necessary.

A balanced family exists within the moderate ranges of both the adaptability and cohesion continuum. However, it is not assumed that a balanced family exists within a moderate range on both the cohesion and adaptability dimensions at all times. Olson et al. (1989) recognize that even a balanced family experiences extreme ends of both spectrums. However, the healthy, functional family does not continually function at the extremes. Therefore, the model posits that families who are generally balanced can still exist at the extreme levels of cohesion and adaptability as long as they do not exist within that area for long periods of time.

*Curvilinearity*

The Circumplex Model assumes a curvilinear relationship between the dimensions of adaptability and cohesion. A curvilinear relationship implies that too little or too much on each dimension is not considered optimal and balance is found in the

middle. A main hypothesis of the model is that families that are within the balanced area of the model are said to function more adequately than families who are within the extreme ends of the model. Therefore, too much, or too little, cohesion and adaptability is considered maladaptive to family functioning.

However, in studies using non-clinical "normal" families, there appears to be a linear relationship between the three dimensions of the model (Barnes & Olson, 1985). Higher levels of cohesion, adaptability, and communication are associated with better functioning. In studies where clinical families are assessed, the curvilinear relationship exists between adaptability and cohesion. Therefore, clinical families tend to function in the extreme areas of the model, whereas non-clinical families tends to occupy the balanced areas of the model more frequently.

Results on the curvilinear hypothesis of the Circumplex model have been inconsistent. Studies generally compare non-functional/problematic families to functional families with no identifiable problems. Research conducted with families of sex offenders (Carnes, 1989), and substance abusers (Volk, Edwards, Lewis, & Sprenkle, 1989) consistently shows lower percentages of balanced type families and greater percentages of extreme families than the functional comparison group. However, findings have also shown no relationship between family cohesion and adaptability. Green, Kolevzon and Vosler (1985) found that balanced families of adolescents on probation were no more likely than mid-range or extreme families to have higher scores on individual and family well being. A study using FACES II found similar findings where results did not discriminate between families of adolescents with a functional illness from families of healthy adolescents (Walker, McLaughlin, & Green, 1988).

The inconclusive findings on the curvilinear relationship between the cohesion and adaptability dimensions of the Circumplex model can be due to a variety of methodological issues. Authors have commented on a variety of factors that could lead different researchers to opposing conclusions (Green, Harris, Forte, & Robinson, 1991). Issues such as using different versions of the FACES instruments, the inclusion of different family members in different studies, a variety of statistical methods employed to analyze data, and issues related to sampling (small sample size and non-heterogeneous samples which may not show the range of family types), may have influenced the findings of the studies and produced the varying results.

*Hypotheses of the Model*

There are six original hypotheses of the Circumplex Model. They address family functioning across the life cycle, communication skills, family ability to change, and acceptance of extreme behaviours (Olson et al., 1989).

*Functioning Across the Life Cycle*

The primary hypothesis of the model states: "*Couples/families with balanced cohesion and adaptability will generally function more adequately across the family cycle than will those at the extremes of these dimensions*" (Olson et al., 1989, p.66). This hypothesis has been tested by hundreds of studies that have shown that families with balanced levels of cohesion and flexibility function better than families with extreme levels (Olson, 1996).

*Communication Skills*

"*Balanced couples/families will tend to have more positive communication skills than Extreme families*" (Olson et al., 1989, p.68). Empirical evidence has supported the

validity of this hypothesis – balanced families communicate better (Barnes and Olson, 1985; Roderick, Henggler & Hanson, 1986).

*Ability to Change*

The Circumplex Model describes three hypotheses that deal with the ability of families to change over time. One of them states: "*To deal with situational stress and developmental changes across the family life cycle, Balanced families will change their cohesion and adaptability, whereas Extreme families will resist change over time*" (Olson et al., 1989, p.68). Therefore, change is easier for balanced families as "*Balanced families have larger behavioral repertoires and are more able to change compared to Extreme families*" (Olson et al., 1989, p.66). Olson and colleagues (1989) attribute positive communication skills as enabling balanced families to change more easily than Extreme families.

Although support for this hypothesis has been demonstrated by studies using cross-sectional data and from the original data used for the development of norms (Olson et al., 1989), there has been no large-scale longitudinal study completed to track changes in cohesion and flexibility for families over time.

*Acceptance of Extreme Behaviour – Cultural and Ethnic Diversity*

Normative and cultural expectations have to be considered when discussing 'balanced' family functioning. Olson et al. (1989) consider a family operating at the extremes, with the satisfaction of all family members, as a well functioning family. He states: "if the normative expectations of a couple or family support behaviour extreme on one or both of the Circumplex dimensions, they will function well as long as all family members are satisfied with these expectations" (Olson et al., 1989, p.21). This highlights

the importance of, not only assessing the family type, but also assessing the satisfaction of the family members existing in that family type. Thus, the family acts as its own standard of status quo. Family norms and expectations are not the same across all ethnic groups. This finding is supported in studies where rigid enmeshed families function well when they have high expectations for togetherness (Woehrer, 1988). However, more research needs to be done to directly test this hypothesis.

*Limitations of the Circumplex Model*

The literature discusses two main limitations of the Circumplex Model. Although cohesion, adaptability, and communication are considered the essential domains of family functioning, the extent to which the Circumplex Model and its measurement tools capture these domains has been contested (e.g. Beavers & Voller, 1983). Researchers focus their discussion on the definitions of core concepts used by the model. The discussion implies that no single instrument can capture the complexity of family functioning (Kouneski, 2000). Support for using multiple family functioning methods in a study is growing. Another argument against the Circumplex Model is an absence of a continuum. Some researchers (Beavers & Voeller, 1983) feel that family functioning dimensions should be placed on an infinite continuum and not on a curvilinear dimension.

Another conceptual challenge for the Circumplex Model is its cross-cultural applicability. The literature documents studies using FACES instruments across the world and researchers in the United States have used it with various ethnical and cultural groups. However, Kouneski (2000) comments that few studies have critically examined the cross-cultural applicability of the Circumplex Model and its instruments. He states that “because cultural values differ and norms are not available for different ethnic

groups, it is important to consider the context in which FACES was developed" (Kouneski, 2000, p.29).

Despite these limitations, the Circumplex Model and accompanying family assessment devices, are one of the most frequently used in the world (Kouneski, 2000). The model's conceptualization of the family goes beyond unilateral concepts such as parental warmth or parental control to more reciprocal relational constructs that apply to the family system as a whole. The essential domains of adaptability and cohesion form a parsimonious model to assess family functioning. The model has been successfully applied to both clinical and research practice across a myriad of disciplines in hundreds of studies.

*Family Adaptability and Cohesion Evaluation Scales – FACES*

The Circumplex Model and the Family Adaptability and Cohesion Evaluation Scales (FACES) instruments are proven tools for investigating family functioning in many fields of study. FACES is one of the most widely used family assessment devices in the world. Kouneski (2000) in his review states that the FACES instruments are used and appear in over 200 journals on topics related to psychology, family social science, medicine, marriage and family therapy, psychiatry, social work, and education among others. The FACES instruments are used to investigate family functioning not only in research and clinical practice but also in premarital and marital assessment (Olson, 1998). The original FACES instrument was introduced along with the model as a 111-item self-report index. The FACES instrument has been developed over the years with the most recent development, the FACES IV.

The Family Circumplex Model and its self-report instruments, FACES II and

FACES III, have been used in hundreds of research studies, which consistently find positive, linear relationships between one of its dimensions—cohesion or flexibility—and various family health outcomes. The number of studies in the disciplines of psychology, medicine, and psychiatry has grown to represent half of all studies conducted with FACES. A complete review of studies using FACES III is beyond the scope of this paper hence a focus on a few studies with adolescents will be explored.

*Child and Adolescent Development*

An area of study using the FACES examines the effects of cohesion and adaptability on child and adolescent development. Significant findings show that family cohesion and communication influence the development of empathy and career maturity in boys and girls. Henry, Sager, and Plunkett (1996) found that perceptions of family closeness were significantly associated with adolescents' expressions of empathic concern for others. Family communication was also significantly related to empathy. King (1989) found family cohesion to be positively related to career maturity for adolescent males and females. For males, King (1989) also found a relationship between family cohesion and greater internal locus of control.

*Family Structure*

Studies using FACES have generally shown no significant relationship between family functioning and family structure. In a study of remarried households, Henry and Lovelace (1995) examined different family variables and found that the strongest relationship to adolescent family life satisfaction was family flexibility – family structure had no mediating effects. Positive communication with stepparents was also significant.

Hence, family adaptability and communication appear to have significant effects on adolescent adjustment but family structure plays no important role.

In a similar study, McFarlane, Bellissimo, and Norman (1995) assessed the association between parental style, family functioning, and adolescent well being between two-parent families and non-two-parent families (one-parent, step-parent, etc.). Sampling eight hundred and one Grade 10 students indicated no relationship between family structure and family functioning. Comparing families containing both parents, single parents, stepparents, or neither parent did not show any significant findings to effective family functioning. The absence of a relationship between family functioning and family structure highlights that the Circumplex Model can be used to assess the functioning of families across different structural types which broadens the scope of assessment when using FACES tools.

*Parent-Adolescent Communication*

Barnes and Olson (1985) argue that communication within the family system is especially important during adolescence. The authors conducted a study examining parent-adolescent communication and family functioning. The purpose of the study was to describe the nature of parent-adolescent communication, as perceived by parents and their adolescent children, in different types of family systems. Findings showed that families with better parent-adolescent communication were higher in family cohesion, family adaptability, and family satisfaction. The importance of family communication have also been linked to other important adolescent outcomes. Studies have linked supportive family communication to identity formation (Cooper, Grotevant, Moore, & Condon, 1982), and higher levels of moral reasoning (Holstein, 1972).

## Review of the Literature

The research on familial influence on adolescent sexual behaviours fully supports the claim that the support and involvement provided by family plays an important role with respect to adolescent sexual health. In this chapter, I will focus on that role. This chapter will provide an overview of the literature that will address the relationship between family functioning and adolescent sexual decision making skills.

The review begins with a discussion explaining why families are an important influential factor when examining adolescent sexual health. Followed is an examination of the most influential familial factors on adolescent sexuality and sexual behaviours. This discussion includes the familial variables that are seen as most influential in the literature and act as protective factors for positive sexual health outcomes. Since there is no literature directly linking a formal family functioning model to adolescent sexual decision-making skills, the purpose of this review is to establish the importance and relevance of examining family functioning, by the concepts of cohesion and adaptability, on adolescent sexuality. Constructs prevalent in the parent-child relationship literature as relevant protective factors for various child social and health problems, such as the quality of the parent-child relationship, parent-child communication, and parental monitoring and control were used as indicators of adaptability and cohesion since their meanings are closely related to one another.

The discussion linking family outcome variables as indicators of cohesion and adaptability will be framed by the following variables.

*Parent Monitoring and Control*

Parental monitoring and control are related to the amount of supervision and rules present in the family environment. Studies use various indicators to operationalize monitoring. Examples include parents' knowledge of the activities and whereabouts of their children, or presence of parents at dinner time and bedtime. The concepts of parental monitoring and control nicely mirror the underlying concepts of adaptability and cohesion in the Circumplex Model. Specifically, parental monitoring and control are related to Circumplex Model constructs of family power (assertiveness, control, discipline), negotiation styles, and boundary setting. The Circumplex Model predicts that families functioning with high levels of control, discipline, and limited flexibility limit their ability to adapt and function at a maladaptive level.

*Parent-Child Connectedness and Warmth*

Parent-child connectedness and warmth is defined as closeness to the parents, feeling loved by the family, and satisfaction with the parent-adolescent relationship (Resnick et al., 1997). A healthy level of support and warmth between the parent-child dyad supports a close relationship between parents and their children. These concepts are closely related to the Circumplex model dimension of family cohesion. Particularly, the model's specific concepts of family cohesion such as emotional bonding. The Circumplex Model predicts that relationships between family members that are either too independent, or where there is too much consensus, are problematic.

*Parent-Child Communication*

The importance of parent-child communication is highlighted in the Circumplex Model as the third and facilitating dimension between levels of cohesion and adaptability.

The model posits that positive and effective communication skills play a central and integral role within a family system to adapt and maintain a balanced level of functioning, whereas, poor communication skills restrict the family's movement on the two dimensions of adaptability and cohesion. Research has shown that families with better parent-adolescent communication were higher in family cohesion, family adaptability, and family satisfaction.

*Contextual and Structural Features of the Family*

There has been limited research exploring the influence of contextual and structural features of the family on the Circumplex model. Of the limited research available, family structure and gender are explored and seen as potentially influential on adolescent sexuality. In addition, given the current rise of increasingly younger adolescents engaging in sexual activities, it is worth to explore the question as to whether those teens that are currently sexually active differ from those who are not in terms of family functioning and sexual decision making skills. Hence the influence of family structure, gender, and sexual activity on the relationship between family functioning and adolescent sexual decision making skills was explored in this study.

The research hypotheses will be addressed at the conclusion of this chapter.

*Definition of Terms*

*Defining the Family*

Each family system has established patterns of relating – patterns that govern the distribution of power and authority within a family, the setting of rules, the enforcing of certain sanctions, and the setting of boundaries (Fox, 1981). These patterns make up the

functionality of a family system – how easily family members adapt to the dynamics of this system establishes a certain level of healthy family functioning.

Family is defined not by its structure but by its purpose. A definition of family, as posited by Crosby and Muller (2002), speaks to that purpose: " [family is] those who provide a caring and nurturing environment that supports the growth and well-being of its members" (p.115). This construction of family goes beyond the traditional encapsulation of family based in structural views. In this thesis, I will use the term parents and family interchangeably. Parents are all those who serve in a parental role for the adolescent whether they are biological parents, legal guardians, or other parent-like figures.

*The Family's Influence on Adolescent Sexuality*

> *"…literally hundreds of mundane incidents over the course of the daily round of family life make up the sexual climate in a home and serve to teach children about sex and sexual values in ways that may or may not be consistent with the intentions and goals that parents have for the sexual socialization of their children*" (Fox & Inazu, 1980, p.26).

Many different sources influence values and attitudes toward sexuality. However, the first contact of sexual education and socialization occurs within the family network. Fox and Inazu poignantly encapsulate the complexity of the familial influence on adolescent sexuality. The family is an integral part in the socialization of adolescents' sexual values, roles, and expected sexual behaviours. Family has the potential to act as an influence on promoting positive, healthy behaviours in their children. They have

opportunities to engage their children in dialogue on decision-making and to impart skills on how to achieve healthy outcomes. As Fox and Inazu allude, directly or indirectly, parents provide the most immediate support and influence for their children. Parents are the primary socializers of their children, and as such, they are the most important and essential source of knowledge and information on sex.

There are many individual and social factors that influence the sexual health of adolescents. Peers, for instance, are an important social influence (Health Canada, 1999). It is recognized that family influences compete with these external social influences such as peers and the media. However, research supporting the role of familial influence cannot be denied. Parents are in a unique and powerful position to shape their children's attitudes and behaviours and to promote healthy outcomes. Positive parenting practices foster personal and social responsibility among adolescents through the guidance, communication of values, and knowledge that parents provide (Feldman & Rosenthal, 2002).

There has been an increased interest in the role that parents have on influencing the sexual behaviour of their adolescents in the past two decades (e.g. Feldman & Rosenthal, 2000, 2002; Fisher, 1989; Jaccard & Dittus, 1991, 1993; Kirkman, Rosenthal, & Feldman, 2002, 2005; Kotva & Schnieder, 1990; Neer & Warren, 1988; Rosenthal, Senserrick, & Feldman, 2001). Roberts and Gagnon (1978) agree that the family plays a unique and special role in determining the circumstances under which teaching occurs, the informational content, and the evaluation tone of the initial learning about sexuality. Consequently, this conditions how children later in their life as adolescents will filter and process the information they receive about sexuality. Lynch (2001) suggests that higher

levels of family interaction and attachment are associated with diminished adolescent sexual activity. Research has shown that adolescents who feel a connection to their family are at a less risk of participating in risky sexual behaviours, such as early initiation of sexual intercourse (Resnick, Bearman, Blum, Baurman, Harris, Jones et al., 1997). Therefore, positive family relationships are essential for adolescent sexual health and development. In this section, I will focus on the literature that illustrates the family system as an influential factor in shaping adolescent sexual health.

*How Does Family Influence?*

Within the literature, the influence of family on adolescent sexual behaviour is focused on a range of environmental, contextual, and structural variables. The research on familial influence on adolescent sexual behaviours supports the claim that the support and involvement provided by parents to their adolescent children plays an important role with respect to early sexual activity (Danziger, 1995). The following section will provide a discussion of the main influential factors. Specifically, I will focus on the influence of family processes – parental monitoring and control, quality of the parent-child relationship, and parent-adolescent communication. I will also discuss contextual and structural characteristics of the family and their important influence on resulting adolescent sexual behaviours.

*Parental Monitoring and Control*

Parental monitoring and control are related to the amount of supervision and rules present in the family environment. Studies use various indicators to operationalize monitoring. Examples include parents' knowledge of the activities and whereabouts of their children or presence of parents at dinner time and bedtime. The concepts of parental

monitoring and control nicely mirror the underlying concepts of adaptability and cohesion in the Circumplex Model. Specifically, parental monitoring and control are related to Circumplex Model constructs of family power (assertiveness, control, discipline), negotiation styles, and boundary setting. The Circumplex Model predicts that families functioning with high levels of control, discipline, and limited flexibility limit their ability to adapt and function at a maladaptive level.

Research supports that parental monitoring and rules are related to lower levels of adolescent problem behaviours of various kinds (Herman, Dornbush, Herron, & Herting, 1997). In relation to adolescent sexual behaviours, the majority of research supports the relationship that higher levels of parental monitoring promotes the delay of first sexual intercourse (Ku, Sonenstein, & Pleck, 1993; Danziger, 1995), as well as a lower number of sexual partners, and greater use of contraception (Luster & Small, 1994; Rodgers, 1999). Consistently, the literature shows an inverse relationship between parental monitoring and sexual risk behaviours. Low parental monitoring is associated with a broad range of adverse sexual outcomes, such as STI infections, and other risk-taking behaviours such as multiple sex partners and low frequency of condom and contraceptive use (Rodgers, 1999). Whereas, increased parental monitoring has been associated with fewer sex partners (Luster & Small, 1997), and less frequent intercourse (Benda & DiBlasio, 1994).

However, some studies do not support the inverse relationship between parental supervision and adolescent sexual behaviour. For example, Resnick et al. (1997) found that parents' presence at home before and after school, at dinner, and at bedtimes – all indicators of supervision – was not related to adolescents' age of first sexual activity or

pregnancy history. Mixed findings in the literature have been explained as due to a curvilinear relationship between parent control and sexual behaviours. Namely, if parental control is excessive or coercive it is associated with negative adolescent sexual health outcomes. Research supports the premise that psychologically intrusive and overly controlling parenting is associated with adolescent problem behaviours (Conger, Conger, & Scaramella, 1997). Meschke, Batholomae, and Zentall's (2000) review of the parental monitoring literature suggests that monitoring and control appear to show a curvilinear relationship with adolescent sexual risk taking. Extremes at both ends, both too many rules and too little supervision, have been related to a greater likelihood of adolescent sexual activity. This mirrors the curvilinear relationship between the dimensions of the Circumplex Model. Families who function best sit in the middle of both the adaptability and cohesion dimensions. Whereas, functioning at the extremes is considered maladaptive because families with too many strict rules are considered rigid and not adaptable.

A study by Miller, McCoy, Olson, and Wallace (1986) also supports this claim. Findings from their cross-sectional study showed that adolescents who perceived their parents as being too strict with many rules were more likely to have had sexual intercourse than adolescents who perceived their parents to be more moderate. This finding was further replicated in a study by both Dorius and Barber (1998) and Upchurch, Aneshensel, Sucoff, and Levy-Storms (1999). Both researchers found that reported intrusive maternal control was related to early age of first sexual activity. Despite evidence for a curvilinear relationship, researchers caution against a casual interpretation of the relationship between parental monitoring and control and adolescent sexual

behaviour. Miller (2002) suggests alternative explanations. Miller (2002) posits that a higher level of monitoring and control by parents can simply be a reaction to adolescent behaviour with antisocial behaviour potentially increasing rules and control of parents over adolescents' behaviours.

In the majority of the literature in this area, findings have consistently shown that parental monitoring and control are inversely related to adolescent sexual risk behaviours. Many studies have shown that parental control might have a curvilinear relationship with adolescent sexual behaviour risk taking, with an adolescent being at greatest risk of potential negative sexual outcomes if their parents are either extreme on very low or high control (Miller et al., 1986). However, researchers caution on a causal interpretation of this relationship.

*Quality of the Parent-Child Relationship*

Much research has been done investigating the relationship between adolescents' sexual behaviours and family variables such as parental warmth, support, parent/child closeness, and child attachment to parents. Parent-child closeness or support, also known as parent-child connectedness, is characterized by " the *quality* of the emotional bond between parent and child and by the degree to which this bond is both *mutual* and *sustained* over time" (Lezin, Rolleri, Bean & Taylor, p. viii, 2004). When parent-child connectedness is high in a family, the "emotional climate" is one of affection, warmth, satisfaction, trust, and minimal conflict. Parents and children who share a high degree of connectedness enjoy spending time together, communicate freely and openly, support and respect one another, share similar values, and have a sense of optimism about the future (Lezin et al., 2004).

This area of investigation produces the most consistent findings as all but a few studies show that parent/child closeness is associated with reduced adolescent pregnancy risk, postponement of first sexual intercourse, having fewer sexual partners, and/or using contraception. In this next section, I will review the literature on a major area of influence on adolescent sexual behaviour outcomes – parent-child connectedness and warmth.

*Parent-Child Connectedness and Warmth*

Parent-child connectedness and warmth is defined as closeness to the parents, feeling loved by the family, and satisfaction with the parent-adolescent relationship (Resnick et al., 1997). A healthy level of support and warmth between the parent-child dyad supports a close relationship between parents and their children. These concepts are closely related to the Circumplex model dimension of family cohesion. Particularly, the model's specific concepts of family cohesion such as emotional bonding. The Circumplex Model predicts that relationships between family members that are either too independent, or where there is too much consensus, are problematic.

A strong and supportive parent-child relationship leads to adolescents who feel supported and cared for by their parents. As a result, adolescents may be more receptive to parental guidance and more accepting of their values (Pearson, Muller, & Frisco, 2006). Both Rodger (1999) and Jaccard and Dittus (1996) highlight the importance of a close parent-adolescent relationship as not only inhibiting adolescent sexual behaviours but also as a necessary part of effective limit setting and communication. This also highlights the importance of considering the family as a system that operates on different dimensions that are interdependent. In terms of the Circumplex Model, adolescents who come from a family that has a healthy level of emotional

bonding (cohesion) will likely be more receptive to moderate levels of parental control and discipline (adaptability). As posited by the model, families functioning on this level will also require a certain level of positive and effective communication skills which will transfer to other aspects of the adolescent's life.

Parent-adolescent closeness has been related to many positive sexual health outcomes. Research has shown parent-adolescent closeness to be correlated with a lower frequency of intercourse (Jaccard, Dittus, & Gordon, 1996), with a smaller number of sexual partners (Feldman & Brown, 1993), and with later age of first sexual intercourse (Resnick et al., 1997). A close and warm parent-adolescent relationship also has indirect influences on adolescent sexual behaviour. Ramirez-Valles, Zimmerman, and Newcomb (1998) state that parent/child involvement can have indirect influences on adolescent sexual behaviour by providing them with opportunities to develop prosocial skills and acquire a sense of competence and worth.

Recent studies have identified mediating mechanisms that could help explain how parent/child connectedness influences adolescents' sexual behaviours. For example, in a study by Whitbeck, Hoyt, Miller, and Kao (1992) lack of parental support was related to depression for adolescent males and females, a greater propensity for alcohol use, and both were related to sexual behaviours. In their comprehensive review of the literature, Miller, Benson, and Galbraith (2001) specify that parent/child closeness appears to be related to adolescents' attitudes about having sex to adolescents' depression, impulse control, academic and prosocial activities, and to their use of substances and association with sexually active peers. This highlights that the quality of the parent child relationship can both directly and indirectly lead to positive and negative sexual health outcomes. A

low quality parent-child relationship can lead to other high-risk behaviours such as alcohol and drug use, which is related to high-risk sexual behaviours such as not using contraceptives (Whitbeck et al., 1992).

The literature highlights the importance of having a close and warm parent-child relationship. Lezin et al. (2004) comment that the connectedness between a parent and child has emerged in recent research as a compelling "super-protector" – a feature of family life that may buffer young people from the many challenges and risks they face in today's world. A supportive and warm parent-child relationship leads to many positive health outcomes for adolescents in terms of their sexual behaviours. Generally, it has been found that high parental closeness and support have been related to reduced adolescent sexual activity and increased contraceptive use. As evidence accumulates for the value that parent-child connectedness plays as a protective factor for the prevention of a variety of health and social problems (Lezin et al., 2004), it has turned attention to the role it plays in the promotion of positive sexual health and sexual health decision making.

*Parent-Adolescent Communication about Sex*

The importance of parent-child communication is highlighted in the Circumplex Model as the third and facilitating dimensions between levels of cohesion and adaptability. The model posits that positive and effective communication skills play a central and integral role in a family system to adapt and maintain a balanced level of functioning. Whereas, poor communication skills restrict the family's movement on the two dimensions of adaptability and cohesion. The information and messages that are (or are not) communicated between parents and children also have the potential to shape sexual decision-making during adolescence. Higher quality communication has led to

decreased likelihood of intercourse, delayed first intercourse for sons, decreased likelihood of daughters being pregnant, and increased contraceptive use for daughters (Fisher, 1986; Leland & Barth, 1993; Pick & Palos, 1995).

An important way of influencing the sexual behaviours of adolescents is engaging in dialogue with them around sex and sexual health issues. Eisenberg, Sieving, Bearinger, Swain, and Resnick (2006) succinctly capture the important, and preferred, role that parents play as their children's main source of sex information/education: "… Parents [are] able to offer information appropriate to an individual child's physical, emotional, and psychological level of development as well as social contexts or life circumstances" (p.894). Having this ability to tailor information individually allows for a more meaningful conversation between parent and child that may increase the retention and receptivity of the child to the messages.

The literature on parent-child communication as a protective factor for adolescent sexual risk behaviour is ambiguous. No single aspect of parent-adolescent communication has been consistently and directly linked to changes in adolescent sexual behaviours (Jaccard & Dittus, 1993; Miller, 2002). Some studies show that open, positive, and frequent parent-child communication about sex is associated with adolescents not having sexual intercourse, postponing their first sexual experience, or having fewer sexual partners (Holtzman & Rubinson, 1995; Jaccard, Dittus & Gordon, 1996; Pick & Palos, 1995). Parent-adolescent communication about sex has also been linked to contraceptive use (Pick & Palos, 1995). Despite these positive outcomes, many studies have also found no association between parent-child communication about sex and adolescent sexual behaviours (Newcomer & Udry, 1985; Rodger, 1999). No effect

of parent-child communication on sexual behaviours was found after family factors, such as satisfaction with the relationship, were taken into account (Furstenberg, Herceg-Baron, Shea, & Webb, 1984; McNeely, Shew, Beuhring, Sieving, Miller, & Blum, 2002, Troth & Peterson, 2000).

In the literature on parent-adolescent communication about sex, gender differences in sex communication content and frequency are very pervasive highlighting underlying differential sexual role socialization. In general, the mother figure has been found to discuss sexuality with adolescents more often than the father figure. This parental gender difference is often affected by the gender of the adolescent as well. Mothers tend to communicate more often with their daughters and fathers rarely communicate with their daughters about sex (Nolin and Peterson, 1992). Female adolescents who talk about sex-related topics with their mothers are a) less likely to report being sexually experienced (DiIorio, Kelley & Hockenberry-Eaton, 1999; Jaccard, Dittus, & Gordon, 1996; Leland & Barth, 1993), b) likely to report less frequent sexual intercourse (Holtzman & Rubinson, 1995; Jaccard et al., 1996), c) more likely to report using condoms and other contraceptives (Jaccard et al., 1996; Leland & Barth, 1993), d) less likely to become pregnant (Adolph, Ramos, Linton, & Grimes, 1995), and e) likely to report fewer lifetime sex partners (Holtzman & Rubinson, 1995).

Parents are also more likely to discuss sexual topics with an adolescent of the same gender than of the opposite gender (Miller, Kotchick, Dorsey, Forehand, & Ham, 1998; Nolin & Peterson, 1992). Rosenthal and Feldman's (1999) study provides a good example of the gender effects on parent-child communication. The authors sampled approximately three hundred students in high school. Each student completed a survey

describing the importance and frequency of mother and father communication about twenty different sex-related topics. Findings illustrated that adolescents reported infrequent communication, which varied by domain and gender of parent and teen. Communication about sex was most frequently reported with mothers than fathers and girls received more communication than boys. Downie and Coates' study (1999) further supported this finding as mothers communicated more with their children than fathers. As Fox (1981) stated: "…the most notable aspect about the father [in parent child communication] is his almost complete absence as a source of sex education for his children" (p.83).

Not only does frequency of communication vary by parent and child gender, but the content of sex communication (topics discussed) also is mediated by gender. The literature highlights that the content of parents' messages often conveys a sexual double standard. Messages to sons promote sexual exploration and pleasure (Downie & Coates, 1999; Moore & Rosenthal, 1991), whereas messages to daughters are overwhelmingly restrictive in tone, stressing the negative consequences of sexual activity (Brock & Jennings, 1993; Darling & Hicks, 1982; Downie & Coates, 1999). Rosenthal and Feldman's (1999) study also supports this finding. Their results showed that parents communicated with sons about topics related to sexual exploration, while they discussed physiological and protective issues with daughters.

The parent-adolescent relationship has consistently shown to influence parent-adolescent communication about sex as well as adolescent sexual decision-making. One study by Short, Ramos, Oakes, and Rosenthal (2007) explored the female adolescent-mother relationship in relation to discussing microbicides use with their partner(s).

Sampling 208 girls ages 14-21 years, the six month study examined the communication between adolescent girls and their partners by examining the relationship between characteristics of girls, communication with mothers and product use, and partner communication. Quantitative and qualitative analysis found that talking with mothers and using the product were significantly related to the girls talking with their partners. Girls who reported not having conversations with their partner(s) cited reasons of embarrassment or shame or quality of the partner relationship. This study is an example of how a healthy and positive parent-child relationship not only influences parent-child communication but also translates to positive communication patterns with intimate partners.

The literature in the area of parent-adolescent communication about sex, although thorough, is complex and discrepant. Miller, Benson, and Galbraith's (2001) review of the literature led them to conclude that parent-adolescent communication about sex has no uniform or consistent effects on resulting adolescent sexual behaviours that hold across parent and child gender, source of data (parent or child report), and especially across parental attitudes and values.

*Contextual and Structural Features of the Family*

Characteristics of the family system play an influential role on adolescent sexuality. There is an abundance of evidence in the literature that demonstrates that the socioeconomic status of the family has an influence on resulting adolescent behaviours. Higher socioeconomic status of parents in terms of education and income level influences adolescents' age of initiation of sexual intercourse and use of contraception. Studies have shown an inverse relationship between income level and parental education attainment

level and adolescent sexual behaviours. Research has shown that higher levels of income have been related to later onset of sexual behaviours and lower teen pregnancy rates (Inazu & Fox, 1980; Lauritsen, 1994). Parental education has emulated similar findings. Higher levels of parental education have been related to lower adolescent sexual activity, delay of first intercourse, greater use of contraception, and lower risk of pregnancy (Hayward, Grady, & Billy, 1992; Roosa, Tein, Reinholtz, & Angelini, 1997). Having older siblings who are sexually active or pregnant sisters, as well as living in a disorganized or dangerous neighborhoods, have also shown to be variables that can place adolescents at risk and influence adolescent sexual behaviour (Miller, 2002).

*Family Structure*

Structural features of the family are also important to consider. The connection between family structure and adolescents' sexual initiation is well established. Research in this area has mainly focused on the influence of a single parent versus dual-parent families on adolescent sexual risk behaviours. However, findings have been conflicted. Lammers, Ireland, Resnick, & Blum (2000) found that more female adolescents from dual parent families, compared with those from single-parent families, postponed the initiation of sexual intercourse. Adolescent females living in a single-family household have been shown to be more likely to engage in early sexual activity and less frequent in their use of contraceptives than adolescents from a two-parent household (Hogan & Kitagawa, 1985; Moore, Morrison, & Glei, 1995). However, in their study, Miller, Forehand, and Kotchik (1999) found no influence of family structure on any outcome variables.

Generally, studies in the area of family structure support the finding that coming from single or divorced parents promotes less parental supervision. More permissive parental sexual attitudes, and parents' own dating activity can help explain why adolescents in some single parent households are at an increased risk of pregnancy. Researchers suggest that adolescents in non-traditional family structures vary in the amount of supervision they receive, the quality of their parent-adolescent relationship, and in the types and amounts of parental involvement (Lee, 1993; McLanahan & Sandefur, 1994). In a single-family home, it is assumed that there are simply less parental-figures to monitor adolescent activities hence single-parent children may have more freedom and autonomy than their dual-parent counterparts.

However, research has found that a positive parent-adolescent relationship can play a mediating role on family structure in single-family households. Moore (2001) found that parental support partially mediates the relationship between some forms of family structure and timing of first intercourse. Davis and Friel (2001) mirrored these results in their study where family structure had a limited influence on sexual initiation after accounting for family context, including the quality of the mother-adolescent relationship, participation in shared activities with the mother, and maternal communication about sex. Limitations of these studies are that they are cross-sectional and causal order is not possible to assess.

In summary, research has shown that living in a two-parent family household is an important mediating factor associated with reduction in early onset of sexual activity (Young, Jensen, Olsen, & Cundick, 1991). Researchers explain this finding stating that both parents provide a more stable environment in which values can be re-inforced.

Single-parent households, on the other hand, have the potential to model nonmarital sexual behavour and provide less emotional support. This can lead to the adolescent relying on emotional support from their peers or their current partners for information on sexual issues and modeling of sexual behaviour. However, a high quality of parent-child relationship can buffer the effects of single-parent households on adolescent risky sexual behaviours.

*Combination of Family Process Factors on Adolescent Sexual Behaviours*

From a family systems perspective, the influential familial factors on adolescent sexual behaviour discussed in the literature do not act in isolation. Rather, these variables engage in a reciprocal and interdependent relationship. Miller et al. (2001) provide an interesting discussion on the combined effects of parent-adolescent relationship dimensions in their review. The authors argue that family process factors that influence adolescent sexual behaviour do not necessarily exist in isolation. The authors hypothesize that if parents and adolescents are closely connected but parental supervision is lacking, adolescents may be more susceptible to non-familial influences such as the media and peers, which would increase risky sexual behaviours. The authors argue that family dimensions such as parental closeness have an influential impact as to whether or not adolescent are more accepting of parental supervision. This relationship is bi-directional as a closer parent-child relationship may also lead parents to allow appropriate adolescent autonomy.

Previous research has shown that adolescents in long-term relationships with positive and supportive relationships with their mothers are more likely to communicate with their partners about contraceptives and STI risk (Kaestle & Halpern, 2005; Stone &

Ingham, 2002; Whitaker, Miller, May, & Levin, 1999). This highlights the importance of the quality of the parent-child relationship and its impact on other family process variables, such as communication. Studies have demonstrated that less frequent communication with partners is associated with a decreased likelihood of using contraceptive and STI-preventive behaviours (Davies, DiClemente, Wingood, Person, Dix, Harrington et al., 2006). Thus, having that supportive relationship between the adolescent and parent appears to not only be an important factor in influencing whether or not adolescents discuss sexual matters with their parents, but also, with their partners.

There is a wealth of theory and research spanning over six decades of child development and family research on parenting highlighting the importance of parental warmth, control, and monitoring. Early studies of parenting found that the dimensions of parental warmth (support) and control were related to various children outcomes and behaviours (Miller, Benson, & Galbraith, 2001). Authoritative parenting – defined as highly supportive with moderate control – consistently was found to be related to positive child outcomes (Baumrind, 1991). Whereas, authoritarian – high control and low warmth – and permission parenting (indulgent or neglectful) were found to be related to negative child and adolescent outcomes. In recent parenting studies, these typologies have been replaced by concepts such as parent/child connectedness, regulation, and autonomy to guide research about parent/child relationships (Barber, 1997; Barber, Thomas, & Maughan, 1998).

These multi-influential and mediating variables discussed above have been exemplified in research by studies done by Jaccard and Dittus (1991;1993) that have argued that the extent of influence of parent-adolescent communication depends on both

the parents' values about adolescent sex and pregnancy as well as parent-child closeness. Jaccard, Dittus, and Gordon's (1998) and Weinstein and Thornton's (1989) studies have also showed the relationship between different pertinent family variables. The researchers have found that the most effectively transmitted parent values surrounding adolescent sex were when parents have a close relationship (connectedness) with their adolescent children.

*Summary of the Literature*

Adolescent sexual behaviour is related to a myriad of family factors. The influence that parents have on their adolescent children's sexual socialization and behaviours relies greatly on the relationship they have. A warm and supportive parent-adolescent relationship appears essential. This factor mediates the association of communication, values, and monitoring with adolescent sexual behaviours (Meschke, Bartholomae, & Zentall, 2000). This also supports the Circumplex model's concepts of emotional bonding and the impact it has on the entire family system.

Not only are family influences abundant but they are also complex and interdependent. Family processes, such as the quality of the parent-child relationship and parental monitoring/supervision, have the most influence, and act as a protective factor on adolescent high risk sexual behaviours, when they are considered together and not in isolation. This highlights the system concept of families – an interdependent system reacting to both internal and external influences where optimum understanding is achieved through understanding the natural reciprocity between different macro and micro level influences.

Literature on familial influences on adolescent sexuality mainly focuses on the adverse health outcomes of adolescent sexual behaviours. Sexual risk behaviours, including early sexual initiation, unprotected intercourse, sex with multiple partners, unintended pregnancy, and sexually transmitted diseases and HIV infections, are the focus of many of the studies. This narrow conceptualization of adolescent sexual health focusing on sexual behaviours and negative health outcomes limits the quality of the research. The quality and scope of the research can be improved by assessing the effects of family factors beyond their association and impact on sexual behaviours.

A strong parent-child relationship has consistently led to better health outcomes for adolescents. Research has established that a supportive and positive parent-child relationship leads to more communication with partners around STI and contraceptive usage. Communicating about sex with parents also appears to be a transferable skill. Adolescents who talk with their parents – mostly mothers – about sex-related topics are also more likely to report talking with their partners about these topics. Comfort talking about sex with their partners has shown to improve the chances of condom use during acts of intercourse (Shoop & Davidson, 1994).

The importance of family communication is a central concept to the Circumplex Model. Furthermore, positive family member relationships have a bidirectional relationship with family communication. Both Rodgers (1999) and Jaccard, Dittus and Gordon (1996) highligh the importance of a close parent-adolescent relationship as not only inhibiting adolescent sexual behaviours but also as a necessary part of effective limit setting and communication. Therefore, a case can be made that family dynamics have a

potential influence on adolescent communication patterns with their sexual partners and their ability and comfort to assert and communicate their boundaries.

There has been no research conducted using a theoretical model of family systems to explore the relationship between level of family functioning and adolescent sexual decision-making skills, such as communication and limit setting (boundary setting). Specifically, family functioning as conceptualized by the Olson Circumplex Model. This provided an immense opportunity for exploration.

*Research Questions*

The purpose of this study was to determine and describe whether there is a relationship between family functioning and adolescent sexual decision making skills. The following five research questions were explored.

1. Is there a relationship between perceived family cohesion and adolescent sexual decision making skills?

2. Is there a relationship between perceived family adaptability and adolescent sexual decision making skills?

3. Is there a relationship between family type and sexual decision making skills?

4. Are there gender differences in the relationship between perceived family cohesion, adaptability, family type, and adolescent sexual decision making skills?

5. Do contextual and structural features, such as family structure and sexual activity, play an influential role on the relationship between family functioning and adolescent sexual decision making skills

# Methodology

The aim of this research was to identify whether or not family functioning is related to grade nine adolescents' sexual decision-making skills in the area of communication, boundary setting, and sexual decision making. A quantitative study was employed to describe the relationship between the level of family functioning and sexual decision making skills. This chapter will describe the data source and sample, the variables and measurements used in this study, and the methods of data analysis.

## *Objectives*

As no previous research has been conducted using a theoretical family systems model to examine the relationship between family functioning and adolescent sexual decision making skills, this investigation had the following objectives:

1. To describe the level of family functioning of participants' families.
2. To describe the relevant sexual decision-making skills of participating adolescents, namely comfort communicating about sexuality with their partner(s), frequency of communication around sexual topics with friend(s), parents, and/or partner(s), comfort asserting and communicating personal boundaries to their partner(s), and sexual decision making.
3. To determine whether or not there is a relationship between level of family functioning and adolescents' sexual decision making skills.
4. To describe influential contextual and structural variables on the relationship between family functioning and adolescent sexual decision making skills.

*Sample*

The study sample included self-selecting participants from the SSRHC-funded, CURA Alliance evaluation project "*Are We There Yet?: Using Theatre to Address Teen Sexuality."* Are We There Yet? **(***AWTY?***)** is a powerful participatory play and workshop for 14 -16 year olds. It uses the metaphor of learning to drive to frame realistic scenes of relationship dilemmas encountered by young people. The AWTY CURA is assessing and evaluating whether and how AWTY? helps teens develop and improve sexual decision-making through communication and boundary setting. The goal is to contribute to "best practice" in sexuality education for youth across different contexts. The AWTY CURA has developed adaptations of the play for urban, rural, Aboriginal, and inner city demographics.

In the spring of 2008, a rural adaptation of the play was created and toured in the rural North Eastern region of Nova Scotia. The sample for this study was taken from the evaluation of the rural adaptation of the project. Four schools within the Nova Scotia Strait Regional Public School Board agreed to participate in the quantitative and qualitative evaluation of the *Are We There Yet?* program. The pre-post design of the evaluation project yielded data at two different time frames: before the participating students saw the play (to establish a baseline) and after the students participated in the play. This study reported on the pre-play data only as the focus of this study is on baseline measures and does not include the influence of the play on chosen outcome variables.

A convenience sample of 154 grade 9 adolescents was used. Forty one percent were males and fifty nine percent were females. A total of 144 pre-play questionnaires

were collected from the students. A database was created using SPSS and data was stored according to individual anonymous student ID codes that were created for the purposes of the evaluation by the researchers.

*Data Collection Process*

Data was collected from April to May 2008 from four participating schools in the Nova Scotia Strait Regional Public School district. Potential participants were given an information letter and consent form to take home to their parents by their teachers (please see Appendix A). The information letter was included to explain the project and research process to the participants and their parents. Parental and student consent were required for participation.

Questionnaires were administered by a graduate research assistant to participating students at each school. Participating students were gathered as one whole group for a one-hour block to fill out the questionnaire. In order to ensure anonymity and track individual student survey scores, each student was assigned an individual special code. This code was taken from the number printed on the op-scan sheets of the questionnaire. Student codes were stored in an excel spreadsheet.

Before students received their questionnaire package, the researcher explained the purpose of the research and issues surrounding confidentiality and anonymity. Since the research dealt with a sensitive topic area, students were made aware that they did not need to answer any questions that they did not feel comfortable responding to and could stop participating at any time without consequence. Respondents did not put their name or any other identifying information on completed questionnaires. Students were assured that only the researchers would be privy to their answers and that no school personnel

would have access to the raw data. Students were given an opportunity to ask questions before they were given their questionnaire. Students were allotted a time of one hour to complete the questionnaire, however the average student finished the questionnaire between thirty to forty five minutes. All students were asked to respond anonymously, seal the questionnaire in the provided envelope, and return it to the researcher.

*Measures*

Variables in this study included level of family functioning as perceived by the adolescent respondent, adolescent sexual decision-making skills, and socio-demographics such as age, gender, and family structure to name a few. The construct of family functioning was measured using the FACES III instrument based on the Olson Circumplex Model of Family Functioning (Olson, Russell & Sprenkle, 1989). Sexual decision making skills were assessed using five related scales. A scale of sexual decision-making and frequency of sexual communication with friends, parents, and partner(s) was taken from the Behaviour Inventory of the Mathtech Questionnaire (Kirby, 1984). A scale on comfort communicating about sexuality, communication about personal sexual boundaries, and comfort being sexually assertive (saying "no") were also chosen as indicators of sexual decision-making, based on previous work done by Kirby, as important variables concerning adolescent sexuality (Kirby, 1984).

*Sexual Decision Making Skills Measures*

The next section will address the five scales that were used to address the variable sexual decision making skills. This variable was addressed with two short scales found in the literature and three short scales that were developed for the purposes of addressing outcome measures for the AWTY? evaluation that were relevant to this study.

*The Mathtech Questionnaire* – To assess general sexual decision making and frequency of conversations/discussions around sex, the sexual decision making scale and frequency of sexual communication scale was used from the behaviour inventory of the Mathtech questionnaire. Two subscales operationalized frequency of sexual communications: frequency talking with friends, girl/boyfriend, and parents about sex, and frequency talking with friends, girl/boyfriend, and parents about birth control.

The Mathtech Questionnaire is an inventory about adolescent sexuality and was chosen as its efficacy has been well established in several studies (Kirby, 2002). The language is appropriate for the adolescent level and the sexual decision making scale of the Behaviour Inventory was deemed appropriate in independently assessing what adolescents consider when making a decision around their own sexuality. The Mathtech adolescent sexuality questionnaires were design by Douglas Kirby of the Center of Population Options, Washington, DC. The questionnaires were designed for two reasons: 1. To evaluate the most important knowledge areas, attitudes, values, skills and behaviours that will either bring about a positive and fulfilling sexuality or reduce unplanned pregnancy among adolescents; and 2.To evaluate the effectiveness of sexuality education programs (Kirby, 1984). The Mathtech Questionnaires consist of three separate inventories, which measure intended outcomes: Knowledge, Attitudes and Values, and Behaviours. Respondents utilized Likert-type options to give their answers.

Many behaviors are characterized by at least three aspects, namely, the skill that is required to complete the behavior, the comfort experienced while displaying the behavior, and the frequency of that particular behavior. The behavior inventory evaluates these characteristics for some associated sexual behaviors. In general, a range of

behaviors is covered, including frequency of sexual activities, numbers of partners, and contraceptive behaviors.

*Sexual Decision Making*

The five-item sexual decision making scale was utilized for the purpose of this research. Example of items included were: "*When you have to make a decision about your sexual behaviour how often do you think hard about the consequences of each possible choice?*" and "*When you have to make a decision about your sexual behaviour, how often do you first get as much information as you can before deciding*?" For the complete scale items, please see Appendix B. Questions around sexual decision making correspond to items 7,8,9,10, and 11 on the Behaviour Inventory on the Mathtech Questionnaire. Respondents were asked to respond on a Likert-scale of 0-5 describing how often they have engaged in the behaviour in general. The scale ranged from *almost never, sometimes, half the time, usually, almost always,* and a 0 item corresponding to *does not apply.* The Likert-scale is used to measure the frequency with which respondents use these skills in their everyday life.

*Frequency of Sexual Communication*

The 6-item scale asked respondents how many times during the previous month they have engaged in conversations or discussions with parents, friends, and/or boy/girlfriend(s) around sexual topics. Example of items included are: "*During the last month, how many times have you had conversation or discussions about sex with your parents?"* and *"During the last month, how many times have you had a conversation or discussion about birth control with a date or boy/girlfriend?"* For the complete scale items, please see Appendix C.

Questions around frequency of communication correspond to items 49 to 54 on the Mathtech Questionnaire Behaviour Inventory. Respondents were asked to respond on a scale of 0-4 describing how often they have engaged in communicating around sexual topics in the previous month. The scale ranged from *none, once, twice, three to five times, and more than 5 times.* The scale measured the frequency with which respondents used their communication skills in their everyday life.

*Reliability and Validity*

Previous research has established the reliability of the sexual decision making skills and sexual communication frequency scale (Kirby, 1984). Reliability is a measure of the extent to which the instrument's scores are consistent and repeatable and the reliability coefficient reflects the variance in the test that is attributed to a true or nonrandom variation (Mishel, 1989). Indicators of reliability include internal consistency and test-retest reliability. Internal consistency and test-retest reliability of both the sexual decision making scale and sexual communication frequency scale taken from the Behaviour Inventory of the Mathtech Questionnaire have been reported.

The Cronbach's alpha measure of internal consistency is a measure of the homogeneity of the various items in an instrument. The Cronbach coefficient for the sexual decision making scale is reported to be .61; the frequency talking about sex scale is .66, and the frequency talking about birth control scale is .73. The measure of stability, or the test-retest reliability, is an appropriate test for a concept or trait thought to be stable over the testing time period. The higher the coefficient, the more stable the measurement instrument is though to be. It is generally used to measure the stability of the instrument and not of the concept being tested (Mishel, 1989). The test-retest coefficient on the

sexual decision-making skills scale is .65; the frequency talking about sex scale is .66, and the frequency talking about birth control scale is .62. Both are considered to have attained an acceptable level of stability.

Psychologists reviewed the entire Mathtech inventory and each item for clarity, uni-dimensionality, and comprehensibility. Specifically, face validity and construct validity. These dimensions address the validity of the instrument, or rather, the extent to which the measure accurately measures what it is supposed to measure.

The Mathtech questionnaire has been used in numerous studies in the literature. One example comes from Scheinberg (1999) who conducted a study to evaluate the effectiveness of a sex education curriculum for male and female adolescents between the ages of 13 to 15. Another study was conducted in Hong Kong and its objective was to evaluate the knowledge of and attitude towards sex of 178 Chinese secondary school learners. A Chinese version of the Mathtech Knowledge Test, Attitude and Value scale as well as a demographic sheet that seeks socio-demographic information was used to gather data. These examples of studies also exemplify the validity of the instrument.

*Communication About Sex and Comfort Asserting and Communicating Boundaries Scales*

Sexual decision making skills were also operationalized using items assessing students' skills in communicating about sexuality and comfort in asserting their personal boundaries. These outcome measures were identified from items used in previous work by Kirby (1984) that matched the goals of the AWTY project and were relevant to this investigation. Hence they were used in the study as a measure of sexual decision-making skills. Three outcome variables were chosen: communication about sexuality,

communicating boundaries, and comfort being sexually assertive – saying "no." These measures included five items pertaining to the level of comfort and embarrassment when discussing sexuality, four items concerning comfort level when discussing personal boundaries/sexual limits, and two items regarding an ability to identify and exercise sexual limits or boundaries.

*Communication about Sexuality Scale*. Consists of five items pertaining to level of comfort, openness, and embarrassment discussing feelings on sexuality, and discussing past and present sexual activities with a current partner in an open and comfortable manner (please see Appendix D). Items include: *"When I bring up sexual topics, I am almost always embarrassed." ; "When others bring up sexual topics, I am almost always embarrassed."*; *"I talk openly with friends about my feelings on sexuality."*; *"I could discuss past sexual activities with a boy/girlfriend."*; and *"I never know what to say when I need to talk about sexual issues with others."* Respondents were asked to use a 5-point Likert-scale with anchor points of *Strongly Disagree* to *Strongly Agree*.

*Communicating Sexual Boundaries.* Consists of four items pertaining to the level of difficulty experienced with communicating one's sexual boundaries to a partner (please see Appendix E). Items include: "*It is really hard to bring up the issue of sexual boundaries with a boy/girlfriend."; "When a boy/girlfriend says they do not want to do certain intimate physical activities I go along with what they want."; "It is easy to suggest to my boy/girlfriend what my sexual limits are.";* and *"I would encourage a boy/girlfriend to tell me what intimate physical activities are comfortable for them."* Respondents were asked to use a 5-point Likert-scale with anchor points of *Strongly Disagree* to *Strongly Agree.*

*Comfort Being Sexually Assertive – Saying "No."* Consists of two items pertaining to being able to identify and exercise personal sexual boundaries (please see Appendix F). Items include: "*Telling a date or boy/girlfriend what you want to do and do not want to do sexually*" and "*Saying "no" to a sexual come-on.*" Respondents were asked to indicate their level of comfort with these behaviours using a Likert-scale of 1 to 4 with anchor points of *Uncomfortable* to *Comfortable.*

*Reliability and Validity*

Good questionnaires seek to maximize the relationship between the answers recorded and what the researcher is trying to measure, so that results can be applied to enhancing knowledge of the population and constructs being studied (Fowler, 1993). Reliability, "the extent to which the measure gives the same results on separate occasion" and validity, "the extent to which the test measures the quality or construct it is intended to measure" of study instruments are considered critical (Kaplan & Saccuzzo, 1997). The communicating about sexuality and asserting and communicating personal boundaries items were developed with the guidance and feedback of experts in the area of social science and adolescent sexuality; members who are experienced academic researchers. The survey questions were based on a literature review, which included a review of survey instruments used in other adolescent sexuality studies. These design elements consider a number of reliability and validity guidelines. Fowler (1993) outlines that clear questions using consistently understood words is one step toward developing a reliable instrument. Kaplan and Saccuzoo (1997) add that test construction, when done well, contributes to content validity, which is the extent to which a test provides an adequate representation of the conceptual domain. Finally, the questions in the scales are consistent

with those found in the literature and in other instruments measuring adolescent sexual decision-making. Kaplan and Saccuzzo (1997) comment that this provides some evidence of construct validity. Running a factor analysis on the question items also attained construct validity. Items with factor loadings of .5 or greater were included in the scale.

The outcome measures all exhibited adequate reliability as assessed by Cronbach's alpha. The "Communication about Sexuality" scale has an alpha of 0.74; "Communicating Sexual Boundaries" scale has an alpha of 0.76; and the "Comfort Being Sexually Assertive – Saying "No"" scale has an alpha of 0.77. The scales have been administered to a sample of over 1000 Grade 9 students in the past three years as part of the AWTY programme questionnaires and have shown consistency and validity. The following describes each scale in detail.

*FACES III*

FACES III is a family self-report assessment tool designed to assess family cohesion and family flexibility, which are the two central dimensions of the Circumplex Model of Marital and Family Systems (Olson, Russell & Sprenkle, 1989). FACES III is the third version in a series of four FACES instruments developed to assess the two major dimensions on the Circumplex Model – family cohesion and family adaptability. Olson, Portner, and Lavee (1985) state that research projects that have used FACES as a measure of family functioning have consistently demonstrated the ability of the instrument to discriminate between functional and non-functional families. The FACES III instrument has both clinical and research versions and a family and couple version. This study reports on the research, family version of FACES III. The research version of FACES III was chosen due to the shorter length of the instrument (twenty items

compared to the thirty items of the FACES II instrument and forty two items of the FACES IV instrument), and it's worldwide recognition as a valid and reliable instrument.

The Circumplex Model and the FACES instruments are proven tools for investigating family functioning in many fields of study. More than 1,200 published articles and dissertations have used a version of FACES and/or the Circumplex Model of Marital and Family Systems (Kouneski, 2000) since the first version of the Model was published (Olson, Sprenkle & Russell, 1979). The model has also stimulated discussion and debate regarding family functioning generally, and the cohesion and flexibility concepts specifically. The concepts have been defined in various ways, both conceptually and operationally, by researchers and theorists to include various aspects of family functioning (Barber & Buehler 1996; Doherty & Hovander, 1990; Werner, Green, Greenberg, Browne & McKenna, 2001). The one constant across these discussions and debates has been the consensus on the importance of adaptability and cohesion as the two concepts pivotal to understanding couple and family systems (Olson, Gorall, & Tiesel, 2007).

FACES III contains two scales with a total of twenty items – ten items to assess family adaptability and ten items to assess family cohesion (please see Appendix G for a copy of the items). Respondents are asked to read each statement and decide how frequently, on a scale that ranges from 1 (*almost never*) to 5 (*almost always*), the described behaviour occurs in his/her family. Cohesion and adaptability each have four levels. The family levels are determined by averaging the family members' scores on cohesion and adaptability. The FACES III, using dimensions of adaptability and cohesion, produces a total of sixteen different family types. On the cohesion scale,

families can range from disengaged, separated, connected, to very connected. On the adaptability scale, families can range from rigid, structured, flexible, to very flexible. Please see Table 3 below for a breakdown of each dimension's categories.

Table 3

*Types and Levels of Dimensions for FACES III*

| FAMILY FUNCTIONING | | DIMENSIONS | |
|---|---|---|---|
| **Type** | **Level** | **Cohesion** | **Adaptability** |
| Balanced | Very high | Very connected | Very flexible |
| Moderately Balanced | High | Connected | Flexible |
| Midrange | Low | Separated | Structured |
| Unbalanced | Very low | Disengaged | Rigid |

An advantage of using a prototypical approach is that it allows researchers to investigate how individuals fit each of the categories, instead of placing individuals into one category without acknowledging that individuals may correspond in varying degrees to more than one category. FACES III can be administered to couples and families across the life span. Ideally, FACES III should be administered to all family members who can complete the inventory so that multiple family members' reports can be compared and couple and family scores can be used. However, the measurement still retains validity when administered to single-family members (Kouneski, 2000).

*Linear Interpretation*

Unlike the conceptualization of the Circumplex Model, FACES III is a self-report instrument that measures cohesion and adaptability in a linear manner. High scores on cohesion and adaptability are related to more functional family relationships (Olson, 1991). High scores represent balanced family types and low scores represent extreme

family types. Low levels reflect two extreme forms of family functioning, namely disengaged and rigid. High scores are considered to be in the balanced range and represent healthy family functioning. Hence, FACES III, unlike the Circumplex Model, does not tap into the enmeshed or the chaotic extremes of the scales dimensions.

The four cohesion levels are redefined from low to high scores representing disengaged, separated, connected, to very connected. The four adaptability levels include rigid, structured, flexible, and very flexible. The three curvilinear regions of the Circumplex Model (extreme, mid-range, balanced) were converted into four regions along a linear scale: extreme, mid-range, moderately balanced, and balanced. The norms were recalculated to define the cutoff scores for the linear levels and regions. The interpretation of the extremely low scores remains in that they represent low levels of family functioning. Extremely high scores are now interpreted as depicting high levels of family functioning and moderate scores indicate moderate levels of family functioning.

Despite the linear interpretation of the central dimensions, FACES III is still a practical tool for researchers. As a linear instrument, it has been successfully applied across multiple disciplines in hundreds of studies (Kouneski, 2000).

*Psychometric Properties*

FACES III was developed to assess the major dimensions of the Circumplex Model and to provide an instrument with high levels of reliability, validity, and clinical utility. Table 4 provides an overview of the characteristics of FACES III. Norms are based on a sample of over 1,000 families across the family life cycle (Olson, McCubbin, Barnes, Larsen, Muxen, & Wilson, 1983). However, generalizability is limited because the sample was restricted in diversity. FACES has been validated in several comparison

studies of self-report instruments (Edman, Cole, & Howard, 1990; Fristad, 1989; Hampson, Hulgus, & Beavers, 1991), and it has been used to validate other instruments such as the Family Environment Scale (Miller, Epstein, Bishop, & Keitner, 1985), the Family Assessment Device (Bloom, 1985), the Family Systems Test (Feldman & Gehring, 1988), and the Kvebaek Sculpture Technique (Berry, Hurley, & Worthington, 1990; Vandvik & Eckblad, 1993). According to the FACES III manual (Olson, Porter, & Lavee, 1985), Cronbach alpha reliability for FACES III is cohesion, 0.77; adaptability, .62. An internal consistency check on the data used for this study yielded Cronbach Alphas of .85 for cohesion and .61 for adaptability. Test-retest reliability coefficients are in the .80s for each dimension. With regard to validity, face validity and content validity are very good (Thomas & Olson, 1994). Concurrent validity for the FACES III measure correlated .84 for the cohesion dimension and .45 for the adaptability scale. Correlation between social desirability and adaptability is zero (r=.00), and Olson deems there to be an appropriate correlation between social desirability and cohesion (r=.39).

*Methodological Limitations of FACES III*

FACES III has several methodological limitations as discussed in the literature. The most attention surrounds the fact that it does not reflect the theoretical and conceptual proposition of the curvilinearity in the Circumplex Model. Thomas and Olson (1994) attribute that to the self-report of family members that can lead to a less accurate perception of their own families. For instance, another FACES measurement tool, the Clinical Rating Scale (CRS), reflects the curvilinear notion of the Circumplex Model. In this instrument, only the clinician observes and rates the families' functioning level. It is argued that the clinician is more likely to perceive a curvilinear dynamic in family functioning than family members themselves (Thomas & Olson, 1994).

Thomas and Olson (1994) also discuss the format of FACES III as an explanation for the linear relationship. They argue that the format of FACES III does not accurately reflect the curvilinearity of the model. This puts the usefulness of FACES III into question. However, Olson (1991) suggests continuing the use of FACES III but scoring and interpreting it in a linear way. Despite these methodological limitations, there are also advantages to using the FACES III as supported in the literature. FACES III has strong evidence to support the orthogonality of the dimensions. The dimensions of cohesion and adaptability are not as highly correlated as in FACES II (FACES III, r=.03; FACES II, r=.65). Furthermore, social desirability effects, unlike FACES II, do not influence FACES III. FACES III is also shown to discriminate well between clinical and nonclinical families (Olson, 2000).

Overall, FACES is one of the most widely used family assessment devices in the world. It has been applied extensively in the United States, and it has been translated into many other languages including Swedish (Engstroem, 1991; Rastam & Gillberg, 1991), Norwegian (Dundas, 1994), Japanese (Kurokawa, 1990), Chinese (Phillips, West, Shen, & Zheng, 1998), Polish (Porzak, 1993; Radochonski, 1992), German (Kirchler, 1988; 1989), Italian (Scabini & Galimberti, 1995), Spanish (Dandes, 1986), and Hebrew (Ben-David, 1995; Teichman & Basha, 1996).

Table 4

*Characteristics of FACES III*

| | Family Adaptability & Cohesion Evaluation Scale (FACES III) |
|---|---|
| **Theoretical Domain and Model** | Family System Circumplex Model |
| **Assessment Level** | Family as Whole |
| **Focus of Assessment** | Perceived; Ideal; Satisfaction |
| **Number of Scales and Items** | 2 Scales: 20 perceived 20 ideal items |
| **Norms** | |
| Normative Sample | n=2453 adults across life cycle<br>n=412 adolescents |
| Clinical | Several types of problem families |
| **Reliability** | |
| Internal Consistency | Cohesion (r=.77)<br>Adaptability (r=.62)<br>Total (r=.68) |
| Test Retest | .83 for cohesion<br>.80 for adaptability |
| **Validity** | |
| Face Validity | Very Good |
| Content Validity | Very Good |
| Correlation between Scales | Cohesion & Adaptability (r=.03) |
| Correlation with Social Desirability | SD & Adaptability (r=.00)<br>SD & Cohesion (r=.39) |
| Concurrent Validity | Lack of evidence |
| Discrimination between Groups | Very Good |
| **Clinical Utility** | |
| Usefulness of Self-Report Scale | Very Good |
| Ease of Scoring | Very Easy |
| Clinical Rating Scale | Yes |

*Data Analysis*

Analysis was conducted using the Statistical Package of Social Sciences (SPSS) Version 15.0 for Windows. A significance level of .05 was chosen to determine significant relationships between variables. First, an adaptability and cohesion scale score was calculated for each participant by summing items. The sum of each scal e was then divided by two to place the participant into one of family type categories. Adaptability and cohesion cutting points developed by Olson in his sample of 1,000 families and reported in the FACES III manual (Olson, Portner, & Lavee, 1985) was used to assign families to the 16 different family types and further to the balanced, mid-range, or extreme family categories. Frequency analysis was done on the frequency of the FACES III scores on the four levels of cohesion, the four levels of adaptability, and the three regions of the Circumplex Model. Scatter plots of adaptability and cohesion scales scores were ran in order to assess linearity. One-way ANOVAs were ran to assess the relationship between cohesion, adaptability, and family type scores and outcomes variables. Chi squares were run to assess the relationship between categorical independent and dependent variables. Two way ANOVAS were run to assess the influence of gender, family structure, and current sexual activity variables on family functioning and adolescent sexual decision making scale scores.

*Ethical Issues*

Since participants were under the age of 18 years, parental consent had to be obtained. Consent forms were opt-in requiring both parental and adolescent consent in order to participate in the study. Before students received their questionnaire package, the researcher explained the purpose of the research, as well as issues surrounding

confidentiality and anonymity. Since the research dealt with a sensitive topic area, students were made aware that they did not need to answer any questions that they did not feel comfortable responding to and could stop participating at any time without consequence. Respondents did not put their name or any other identifying information on completed questionnaires. Students were assured that only the researchers would be privy to their answers and that no school personnel would have access to the raw data. Students were given an opportunity to ask questions before given their questionnaire. All students were asked to respond anonymously, seal the questionnaire in the provided envelope, and return it to the researcher.

In addition the Faculty of Arts REB at the University of Alberta, two separate ethics board in Nova Scotia – the Guysborough Antigonish Strait Health Authority (GASHA) Research Ethics Committee and the Strait Regional School Board, approved the research.

*Limitations of the Study*

There are several limitations to this study. The use of self-report measures is one limitation of the study. In self-report measures, factors such as social desirability and interpretation of the question influence answers. General limitations of self-report instruments have been well documented in the literature (Grotevant & Carlson, 1989), such as constraints in the wording of the questions and the response format. For instance, with the FACES III measure, family members may interpret the items differently than the researcher intended and may not accurately report their behaviours.

Another potential limitation is the fact that the measures used are discrete and categorical. Information can be lost because individual variance and uniqueness is

collapsed into a category. However, for the FACES III measure, a prototypical approach allows researchers to investigate how families fit within each of the sixteen categories, instead of placing them into one category or on extreme spectrums. Since this study was done with a sample of young rural adolescents, and since random sampling was not utilized, the results cannot be generalized to other populations. Also, since consent was based on an 'opt in' option, this limits the range and type of families who would agree to allow their adolescent child to participate in the evaluation of a sexual health program.

Another significant limitation of the sample is that the FACES III measure was only administered to one family member – the adolescent. Resultantly, perceived family functioning is restricted to the adolescents' perspective and does not include parents and siblings making them vulnerable to bias and inaccuracy. The perceived family dynamics are limited to the perceptions of that one family member on the functionality of their family system. As such, it does not conform to one of the basic requirement of family system research – to assess and account for the responses of multiple family members. Olson et al. (1985) suggest that ideally their instrument, FACES III, should be administered to all family members and that family mean scores should be calculated. Also, it has been demonstrated in the literature that it is common to find that adolescent reports do not match those of the parents (Noller & Callan, 1986).

The generalizability of the findings is also limited to Caucasian, grade 9 adolescent students, from traditional nuclear families in a rural area. Other youth from different backgrounds and in different settings may have different perspectives. Furthermore, although all extreme groups were represented in this study, only 2% of the sample size represented the balanced family group. More participants in these extreme

categories are needed in future research designs. Finally, the size of this sample was relatively small and may have limited the power to detect additional associations between variables. Results of this study should be viewed as preliminary until they can be replicated and extended in larger samples.

# Results

This chapter reports the findings of this study. First, the socio-demographic characteristics, family cohesion, family adaptability, and family types are described through the use of descriptive statistics. Second, findings pertaining to the five research questions are presented in two main sections. The sexual decision making skills section presents findings investigating the influence of FACES III on the five outcome variables: communication about sex, communicating boundaries, comfort asserting boundaries, sexual decision making, and frequency of sexual communications. The last section of this chapter focuses on the influence of contextual and structural variables such as gender, family structure, and adolescent sexual activity on the independent and dependent variables.

## *Description of the Sample*

### *Socio-demographics*

The sample was examined using descriptive statistics such a frequencies, mean, range, and variance. A total sample of one hundred and fifty four grade 9 students was surveyed. Student participants were asked about their gender, age, sexual orientation, nationality, current living situation, current sexual activity, and sexual values.

The majority of students were between the ages of 14-15 years ($M$=14.6), declared themselves heterosexual (97%), and Caucasian (84%). The majority of students lived with both of their parents (75%), followed by 11% who lived with their mom only, and 6% lived with their mom and dad at different times.

When asked when one should be sexually involved, students responded with the following: 42% felt sexual involvement should not happen until both partners agree that

it is alright; 31% when they are in love but not married or engaged; and 15% did not feel sexual involvement was appropriate until marriage. These frequencies were also isolated by gender and indicated a similar breakdown for both males and females. The majority of students were not currently sexually active (73%) nor have been sexually active in the past (60%). Twenty seven percent (n=34) responded as being currently sexually active and 40% (n=55) have been sexually active in the past. A total of 18 (36%) males indicated that they were currently sexually active as compared to 13( 18%) females. A total of 14 (28%) males indicated that they have been sexually active in the past as compared to 19 (26%) females. The socio- demographic profile of the study participants is illustrated in Table 5 and Table 6.

Table 5

*Socio-Demographic Characteristics of Study Sample (n=154)*

| Demographic Characteristic | Total Sample |
|---|---|
| **Age** | |
| Mean | 14.57 (n=141) |
| Range | 14 - 16 |
| S.D. | .51 |
| **Gender** | |
| Female | 59% (n=77) |
| Male | 41% (n=54) |
| **Sexual Orientation** | |
| Heterosexual | 97% (n=137) |
| Homosexual | 1% (n=2) |
| Bisexual | 1% (n=2) |
| I'm not sure | 1% (n=1) |
| **Nationality** | |
| Caucasian | 84% (n=117) |
| Other or Mixed Descent | 7% (n=10) |
| Aboriginal/First Nations | 6% (n=8) |
| Black | 2% (n=3) |
| Chinese | 1% (n=1) |
| **Perceived Level of Family Income** | |
| Having enough family income | 77% (n=111) |
| Needing more family income | 14% (n=20) |
| Having more than enough family income | 9% (n=13) |
| **I am currently living with:** | |
| My Mom and Dad | 75% (n=107) |
| Mom Only | 11% (n=15) |
| Mom and Dad at different times | 7% (n=8) |
| Dad Only | 4% (n=5) |
| Other | 6% (n=8) |

Table 6

*Sexual Profile of Study Sample (n=154)*

| Demographic Characteristic | Total Sample |
|---|---|
| **Sexual Activity** | |
| I am currently sexually active | 27% (n=37) |
| I have been sexually active in the past | 40% (n=55) |
| **I believe that I should not be sexually active until:** | |
| We both agree that it is alright | 42% (n=61) |
| I am in love but not married or engaged | 31% (n=44) |
| I am married | 15% (n=21) |
| I am casually involved with someone | 8% (n=12) |
| I am engaged | 4% (n=6) |

*Cohesion and Adaptability*

The sample means and standard deviations on the family cohesion and family adaptability variables are presented in Table 7 and Table 8. Since Olson, McCubbin et al. (1985) provide norms for families with adolescents and not for adolescents alone, it may not be appropriate to compare sample means with established FACES III norms. Keeping this in mind, a mean of 37.1 and a standard deviation of 6.1 for cohesion in families with adolescents is reported in the FACES III manual (Olson et al., 1985). Since adolescents tend to perceive less cohesiveness in their families than do their parents (Perosa & Perosa, 2001; Barnes & Olson, 1985), it is reasonable that the mean for cohesion in this

sample is lower (*M*=32.79). There was no statistically significant gender difference on cohesion scores.

The sample mean for adaptability is somewhat higher (*M* =26.1) and the standard deviation is slightly greater (SD=5.0) than in Olson's norms for families with adolescents (*M* =24.3, SD=4.8). There was no statistically significant gender difference on adaptability scores.

Table 7

*Means and Standard Deviations for Family Cohesion*

| | **Mean*** | **Standard Deviation** |
|---|---|---|
| Total Sample (n=144) | 32.8 | 7.2 |
| Male (n=54) | 33.1 | 7.9 |
| Female (n=77) | 33.1 | 6.4 |

* Out of a possible score of 50.

Table 8

*Means and Standard Deviations for Family Adaptability*

| | **Mean*** | **Standard Deviation** |
|---|---|---|
| Total Sample (n=144) | 26.1 | 5.0 |
| Male (n=54) | 26.9 | 6.0 |
| Female (n=77) | 25.8 | 4.2 |

* Out of a possible score of 50.

In Table 9 the data from the present study regarding the proportions of youth in each of the levels of cohesion, adaptability, and family types are compared with the data provided by Olson et al.'s (1985) study. Of the total sample, 57% of adolescents perceived their families' level of cohesion as disengaged, 31% as separated, 9% as connected, and 3% as very connected. These proportions are not similar to those in Olson's study of 2,498 persons including 416 adolescents, in which he found 16% were disengaged, 33% were separated, 34% were connected, and 17% were very connected. The most significant difference to note is that a higher proportion of this study's sample perceived their family as disengaged (52%) as compared to Olson's norms (16%).

In the sample, the proportions of perceived levels of family adaptability were 9% rigid, 30% structured, 37% flexible, and 24% very flexible. In Olson's study, 15% were rigid, 35% were structured, 33% were flexible, and 17% were very flexible. These proportions are more similar to one another than the cohesion sample proportions.

Table 9

*Adolescent Perception of Family Functioning*

| | **Present Study** *(n=141)* | **Olson's Study** *(n=2498)** |
|---|---|---|
| **Cohesion** | | |
| Disengaged | 57% | 16% |
| Separated | 31% | 33% |
| Connected | 9% | 34% |
| Very Connected | 3% | 17% |
| **Adaptability** | | |
| Rigid | 9% | 15% |
| Structured | 30% | 35% |
| Flexible | 37% | 33% |
| Very Flexible | 24% | 17% |
| **Family Type (n=140)** | | |
| Balanced | 2% | 17% |
| Moderately Balanced | 24% | 33% |
| Mid-Range | 53% | 34% |
| Unbalanced | 21% | 16% |

*Note: National norms are based on a sample of 2,082 married persons and 416 adolescents, making the total sample of 2,498 persons. National norms are based on data from the book Olson et al. (1989) Families: What makes them work. Newbury Park, CA: Sage Publications.

In the sample, 2% of adolescents are in the category of balanced family types, 24% were from moderately balanced families, 53% from mid-range family types, and 21% from unbalanced family types. In the sample, the majority of adolescents fall into the mid-range category. In Olson's study, a similar pattern is seen with a larger proportion falling within the balanced family type (17%) and slightly smaller proportion falling within the unbalanced family type (16%).

*Sexual Decision Making Skills*

Student participants were asked to respond to a total of five different scales assessing their sexual decision making skills. Outcome variables pertained to comfort communicating about sex and boundaries, comfort asserting sexual boundaries, sexual decision making, and frequency of sexual communication with friends, partners, and parents. Chi square and one way and two way between groups analysis of variance was used to investigate the relationship between adaptability, cohesion, and family types on sexual decision making skills.

*Communicating about Sex, Communicating and Asserting Boundaries, and Sexual Decision Making*

Respondents were asked to rate their comfort communicating about sex, communicating boundaries, and their comfort asserting personal boundaries. Items pertaining to how they make a sexual decision were also asked. The means and standard deviations for the four sexuality skills scales are presented in Table 10.

Table 10

*Sample Means and Standard Deviations of the Sexual Decision Making Scales*

| **Sexual Decision Making Skills Scales** | **Mean** | **Standard Deviation** |
|---|---|---|
| ** Communication about Sexuality (n=144; 5 items) | 16.22 | 2.55 |
| ** Communicating Boundaries (n=144; 4 items) | 14.35 | 1.55 |
| * *** Comfort Being Sexually Assertive (Saying 'No') (n=140; 2 items) | 4.11 | 1.58 |
| **** Sexual Decision Making (n=140; 5 items) | 12.09 | 2.84 |

* Scale is reversed scored. Lower scores indicated more comfort asserting sexual boundaries.

** Respondents were asked to use a 5-point Likert-scale with anchor points of *Strongly Disagree* to *Strongly Agree*.

*** Respondents were asked to indicate their level of comfort with these behaviours using a Likert-scale of 1 to 4 with anchor points of *Uncomfortable* to *Comfortable.*

**** Respondents were asked to respond on a Likert-scale of 0-5 describing how often they have engaged in the behaviour in general. The scale ranged from *almost never, sometimes, half the time, usually, almost always,* and a 0 item corresponding to *does not apply.* The Likert-scale is used to measure the frequency with which respondents use these skills in their everyday life.

A one way between groups analysis of variance was conducted to explore the impact of cohesion, adaptability, and family type on sexual decision making skills. Student participants were divided into four cohesion and four adaptability groups according to their raw scores on these measures. These scores were then summed and divided by two to obtain the participants' family type score (the FACES III manual contains instructions on how to score and interpret FACES III ). Since FACES III is scored in a linear fashion, balanced and moderately balanced family types can be

combined resulting in three family types – unbalanced, mid-range, and balanced (Olson, Portner & Lavee, 1985).

There was a statistically significant difference at the p <.05 level for communicating boundaries scores and cohesion, $F$ (3, 141) = 2.63, $p$ <05. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the disengaged group ($M$=14.18, $SD$=1.50) was significantly different from the very connected group ($M$=16.25, $SD$=1.50). Hence, adolescents who perceived their families to be more cohesive also perceived themselves to be more comfortable talking about their boundaries with a partner. There were no significant differences between adaptability scores and the outcome sexual decision-making skills scales.

Cohesion and adaptability scores were further collapsed into three categories based on 25$^{th}$, 50$^{th}$ and 75$^{th}$ quartiles. Raw scores for cohesion and adaptability were grouped in the lower 25%, the middle 50%, and the upper 25% to represent the low, medium, and high ranges. Since FACES III is scored in a linear fashion this type of grouping did not affect the interpretation of scores. A one way ANOVA was conducted between the cohesion and adaptability scores and the sexual decision making skills scales. The only statistically significant difference appeared in the sexual decision making scores for the three cohesion groups: $F$ (2, 137) = 4.31, $p$ <.05. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the lower 25% ($M$=10.94, $SD$=2.80) was significantly different from the middle 50% group ($M$=12.44, $SD$=2.91). The lower 25% group was also significantly different from the upper 25% group (M=12.11, SD=2.81). This indicated a positive linear relationship between cohesion and sexual decision making scores, where adolescents who perceived their

families as less cohesive scored lower on sexual decision making, and those who perceived their families as more cohesive scored higher on sexual decision making.

ANOVAs were also conducted on the three family types – unbalanced, mid-range, and balanced. Significant differences were found for both the communication about sex ($F$ (2,140) = 3.20, $p$ <.05) and the sexual decision making scale ($F$ (2,136) = 5.70, $p$ <.01). Post-hoc comparisons using the Tukey HSD test indicated that adolescents who perceived their family functioning as mid-range ($M$=16.48, $SD$=2.50) felt more comfortable communicating about sex than adolescent who perceived their family functioning as unbalanced ($M$=15.16, $SD$=2.55). Post-hoc tests for sexual decision making indicated that that adolescents who perceived their families as balanced ($M$=13.11, $SD$=2.62), scored higher on sexual decision making than adolescents who perceived their family as unbalanced ($M$=10.83, $SD$=3.04). Therefore, healthy family functioning appears to influence adolescents' sexual decision making processes. Specifically, adolescents from balanced families indicate that they spend more time thinking about the consequences of their choices, gathering information, and discussing their choices with others, than adolescents from perceived less functioning families. Communicating and asserting boundaries did not show up as statistically significant.

Table 11 below provides a summary of the significant relationships found between cohesion, adaptability, family type, and the four outcome variables: comfort communicating about sex, comfort communicating sexual boundaries, comfort asserting sexual boundaries, and sexual decision making. The Xs indicate a significant relationship and indicate between which groups the significant difference exists.

Table 11

*Summary of Statistical Significant Findings – Sexual Decision Making Skills*

| | **Outcome Variables** | | | |
|---|---|---|---|---|
| **Independent Variables** | **Comfort Communicating about Sex** | **Comfort Communicating Sexual Boundaries** | **Comfort Asserting Sexual Boundaries** | **Sexual Decision Making** |
| **Cohesion** | | | | |
| *Disengaged* | _ | X | _ | X |
| *Separated* | _ | _ | _ | X |
| *Connected* | _ | _ | _ | X |
| *Very Connected* | _ | X | _ | X |
| **Adaptability** | _ | _ | _ | _ |
| **Family Type** | | | | |
| *Unbalanced* | X | _ | _ | X |
| *Mid-Range* | X | _ | _ | |
| *Balanced* | _ | _ | _ | X |

NB. In relation to statistics already presented, these are the significant relationships found in the data.

*Frequency of Sexual Communication*

Respondents were asked to indicate, on a scale of 0-4, how many times during the previous month they have engaged in conversations or discussions with parents, friends, and/or boy/girlfriend(s) around sexual topics. A higher score indicated more frequent discussions around sexual topics. Descriptive statistics were used to determine the

percentage of individuals reporting each frequency of sexual communications. Please see Table 12 below.

Table 12

*Frequency of Sexual Communication*

| **During the last month, how many times have you had a conversation or discussion:** | **None** | **Once** | **Twice** | **3-5 Times** | **More than 5 times** |
|---|---|---|---|---|---|
| About sex with your parents? (n=141) | 85 (60%) | 36 (26%) | 10 (7%) | 7 (5%) | 3 (2%) |
| About sex with your friends? (n=140) | 34 (24%) | 26 (19%) | 21 (15%) | 24 (17%) | 35 (25%) |
| About sex with a date or boy/girlfriend? (n=139) | 91 (66%) | 17 (12%) | 12 (9%) | 7 (5%) | 12 (9%) |
| About birth control with your parents? (n=139) | 108 (78%) | 13 (9%) | 11 (8%) | 5 (4%) | 2 (1%) |
| About birth control with your friends? (n=140) | 93 (66%) | 13 (9%) | 10 (7%) | 13 (9%) | 11 (8%) |
| About birth control with your boy/girlfriend? (n=140) | 116 (83%) | 8 (6%) | 6 (4%) | 6 (4%) | 4 (3%) |

A high proportion of adolescents (76%) have discussed sex with friends at least once in the past month. Albeit the frequency pattern of communication with friends about sex, the majority of student participants (60 – 83%) have not engaged in discussions around sex and/or birth control over the past month with either friends, parents, or partners.

A chi square test for independence was conducted to assess the relation between frequency of communication and cohesion and adaptability. Frequency of communication was collapsed into two groups: adolescents who had no discussions on sexual topics within the last month with parents, friends, and/or partners and those who had at least once had a discussion around sex and/or birth control. This was done in order to meet the chi square test assumption stipulating at least a frequency of five in each cell for valid findings.

Findings showed that the relationship between discussions on sexual topics such as birth control and sex with friends and parents was significant. There was a significant relationship between discussions about sex with friends and adaptability, $X^2_{(2, N = 140)} = 10.97$, $p < .00$. Adolescents who perceived their families as more adaptable were more likely to discuss sex with friends at least once in the past month. Further, adaptability and cohesion scores were combined to form a family type. Chi square analysis showed that family type had a relationship with discussion of sexual topics with parents and friends in the past month. Adolescents from unbalanced family types (lower family functioning) were less likely to have discussions with their parents about sex in the past month, and adolescents from balanced families were more likely to have at least once conversation with their parents about sex in the past month ($X^2_{(2, N = 126)} = 5.87$, $p < .05$). Discussions about sex with friends also related to family type. Findings showed that a large proportion of adolescents from mid-range and balanced families talked with their friends in the past month about sexual topics ($X^2_{(2, N = 136)} = 9.37$, $p < .01$). There were no significant findings showing a relationship between discussions with partners on sex or birth control and cohesion, adaptability, and family type.

Table 13 below provides a summary of the significant relationships found between cohesion, adaptability, family type, and frequency of sexual communications. The Xs indicate a significant relationship and indicate which groups were more likely to have a conversation about sexual topics within the past month.

Table 13

*Summary of Statistically Significant Findings – Frequency of Sexual Communications*

| | **Outcome Variables** | | | | | |
|---|---|---|---|---|---|---|
| **Independent Variables** | **About Sex With Parents?** | **About Sex with Friends?** | **About Sex with a Date or Partner?** | **About Birth Control with Parents?** | **About Birth Control with Friends?** | **About Birth Control with Partner?** |
| **Cohesion** | _ | _ | _ | _ | _ | _ |
| **Adaptability*** | _ | X | _ | _ | _ | _ |
| **Family Type**** | | | | | | |
| *Unbalanced* | _ | _ | _ | _ | _ | _ |
| *Mid-Range* | _ | _ | _ | _ | _ | _ |
| *Balanced* | X | X | _ | _ | _ | _ |

NB. In relation to statistics already presented, these are the significant relationships found in the data.

* Findings indicated that adolescents from families perceived as more adaptable were more likely to talk about sex with friends in the past month.

** Findings indicated a positive linear relationship between family type and frequency of communications about sex with parents and about sex with friends. Adolescents from families perceived as more balanced were more likely to engage in conversations about sex with parents and friends in the past month.

*Contextual and Structural Influences*

A review of the literature highlighted that variables such as gender and family structure can potentially have an influence on sexual behaviours. Given the focus of adolescent sexual behaviour literature on remedying adolescent early sexual activity by acquiring skills that support sexual health, exploratory analysis was also conducted to examine whether or not adolescent current sexual activity had an impact on the relationship between family functioning and sexual decision making skills. Chi square and two way ANOVA analyses were conducted to determine whether or not contextual and structural variables have an effect on the relationship between family functioning and sexual decision making skills. This section will explore the influence of gender, family structure, and current sexual activity on that relationship.

*Gender*

In order to examine whether or not there was a relationship between gender and cohesion, adaptability, and family type, a chi square test of independence was conducted. Gender showed no significant relationship with cohesion ($X^2_{(3, N = 129)} = 4.63$, $p = .20$), adaptability ($X^2_{(3, N = 131)} = 3.33$, $p = .34$), or family type ($X^2_{(2, N = 128)} = 1.36$, $p = .51$).

To further explore the influence of gender on sexual decision making skills both chi square and two way analysis of variance were used. Chi-square analysis on gender and frequency of sexual communication highlighted that the relation between gender and conversations around birth control was statistically significant. A greater proportion of females were more likely to have had conversations with their friends about birth control in the past month ($X^2_{(1, N = 127)} = 19.26$, $p = .00$) than males.

A two way between-groups analysis of variance was conducted to explore the impact of gender and family functioning on sexual decision making skills. There was a

statistically significant main effect for gender on sexual decision making when ran with adaptability as the other independent variable ($F$ (1, 127) = 7.19, $p$ <.01). The means plots showed that generally, both males ($M$=9.60) and females ($M$=12.86) scored lower on sexual decision making if they perceived themselves to be from a less adaptive family (rigid). However, if student participants perceived themselves to be from more adaptive families (very flexible), females' scores are significantly higher ($M$=13.20) than adaptive males scores ($M$=11.81) on sexual decision making. This also illustrates a positive linear relationship between adaptability and sexual decision making for males and females, where adolescents from less adaptive families score lower on sexual decision making and adolescents from more adaptive families score higher on sexual decision making.

Although the main effect of gender on comfort asserting boundaries was non-significant ($F$ (1, 127) = 3.17, $p$ =.08) there is a trend towards significance. Moreover, the means highlighted an interesting relationship between males and females. Overall, males appear to be generally more uncomfortable being sexually assertive than females. Generally, the means highlight a trend where adolescents from rigid or structured cohesive families (males $M$=5.20; females $M$=4.14) are less comfortable asserting their sexual boundaries than adolescents from cohesively flexible families (males $M$=4.38; females $M$=3.47). Please see figure 2 below and please note that higher scores indicate less comfort. There were no other main effects or interaction effects between gender and cohesion or adaptability on the outcome variables.

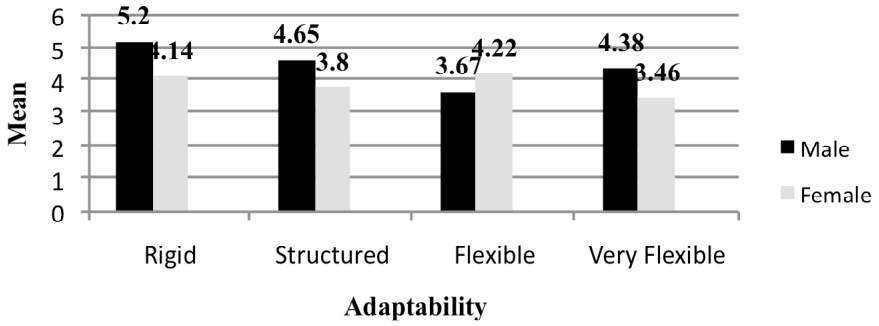


*Figure 2***.** Gender and Adaptability Influences on Comfort Asserting Boundaries.

When investigating gender and family type's influence on the dependent variable, a two way analysis of variance also yielded a main effect for gender on sexual decision making ($F$ (1, 124) = 5.31, $p$ <.05). Means plots revealed that mean scores for adolescents from mid-range functioning families were comparable for females ($M$=12.13) and males ($M$=11.96). The difference between the genders was highlighted in adolescent males and females from unbalanced and balanced types of families. Adolescent males from unbalanced families scored significantly lower ($M$=10.25) than females ($M$=12.17) on sexual decision making whereas adolescent females from balanced families ($M$=13.58) scored significantly higher than males ($M$=12.00) on sexual decision making. This indicates that when males make a decision around their sexual behaviour, they spend less time thinking about the consequences of their choices, gathering information, and discussing it with others than do their female counterparts regardless of family type. In summary, gender showed significant main effects on the outcome variable sexual decision making, which indicated how adolescents make decisions around their sexual behaviours. Gender did not have any main or interaction effects with adaptability, cohesion, or family types on communicating about sexuality.

Table 14 below provides a summary of the significant relationships found between cohesion, adaptability, family type, and gender on the outcome variables when two way ANOVAS were run. Not included in the table is the finding from the chi square analysis. Chi square analysis found one significant finding – namely, females were more likely to have a conversation about birth control with friends in the past month than males. The Xs indicate statistically significant relationships.

Table 14

*Summary of Statistically Significant Findings – Gender*

| *Outcome Variable* | **Male** | | | **Female** | | |
|---|---|---|---|---|---|---|
| | ***Adaptability*** | ***Cohesion*** | ***Family Type*** | ***Adaptability*** | ***Cohesion*** | ***Family Type*** |
| Sexual Decision Making | X | _ | X | X | _ | X |

NB. In relation to statistics already presented, these are the significant relationships found in the data.

As presented in the table above, gender had a main effect on sexual decision making. Females from families perceived as more adaptable scored higher on sexual decision making than males. The influence of gender on family type highlighted a positive linear relationship. Females from families perceived as balanced scored higher on sexual decision making than males from families perceived as balanced.

*Family Structure*

Family structure was analyzed as a contextual variable to examine if there were any main effects on family functioning and sexual decision making skills. Student participants were asked to indicate their current living arrangement out of a total of nine possible options provided. Due to small counts in certain groups, the family structure variable was collapsed into two groupings: a traditional, nuclear family living

arrangement (mom and dad) and a non-traditional family living arrangement (included all other options).

A two way between-groups analysis of variance was conducted to explore the impact of family structure and family functioning on sexual decision making skills. There were no statistically significant main effects for family structure and family type on communicating about sex ($F$ (1, 139) = .93, *ns*), sexual decision making ($F$ (1, 135) = 1.63, *ns*), comfort asserting boundaries ($F$ (1, 135) = .93, *ns*), and communicating boundaries ($F$ (1, 139) = .02, *ns*). A two way between groups analysis of variance also showed no significant main or interaction effects of family structure and adaptability and cohesion on sexual decision making skills.

Despite the non-significant relationship, the means plots revealed a positive linear relationship between family structure and family types on sexual decision making skills scale scores, especially for non-traditional family living arrangements.

*Sexual Activity*

Student participants were asked to indicate whether or not they are currently sexually active or have been sexually active in the past. Since the present study did not collect longitudinal data to ascertain whether or not adolescents make positive healthy choices around their sexuality in the long-term, current and past sexual activity were used as indicators of sexual behaviours. Although the majority of student participants indicated that they are not currently sexually active nor have not been in the past, approximately 30% of males and females indicated otherwise which warrants exploration. Table 15 displays frequencies of cohesion, adaptability, and family type distributions for the following groups: student participants who are currently sexually active, who are not

currently sexually active, who indicated they are currently sexually active and have been in the past, and students who indicated they are not currently sexually active and have not been sexually active in the past.

Table 15

*Adolescent Sexual Activity and Perception of Family Functioning*

| | **Currently Sexually Active** | **Currently Not Sexually Active** | **Currently Sexually Active and Have Been Sexually Active in the Past** | **Currently Not Sexually Active and Have Not Been Sexually Active in the Past** |
|---|---|---|---|---|
| **Cohesion** | | | | |
| Disengaged | 25 (68%) | 47 (50%) | 15 (71%) | 39 (50%) |
| Separated | 11 (30%) | 32 (34%) | 6 (29%) | 26 (33%) |
| Connected | 1 (3%) | 11 (12%) | - | 10 (13%) |
| Very Connected | - | 4 (4%) | - | 3 (4%) |
| **Adaptability** | | | | |
| Rigid | 5 (14%) | 6 (6%) | 2 (10%) | 6 (8%) |
| Structured | 11 (30%) | 29 (30%) | 8 (38%) | 26 (33%) |
| Flexible | 12 (32%) | 37 (39%) | 5 (24%) | 28 (35%) |
| Very Flexible | 9 (24%) | 24 (25%) | 6 (29%) | 20 (25%) |
| **Family Type** | | | | |
| Balanced | 5 (14%) | 30 (32%) | 2 (10%) | 24 (31%) |
| Mid-Range | 23 (62%) | 45 (48%) | 13 (62%) | 37 (47%) |
| Unbalanced | 9 (24%) | 18 (19%) | 6 (29%) | 17 (22%) |

General trends from the above table indicate the following: a larger proportion of sexually active adolescents (past or present) perceived their families to be less cohesive (disengaged or separated) than non-sexually active adolescents; a slightly higher proportion of sexually active adolescents perceived their families as being rigid (less adaptable) as opposed to non-sexually active adolescents; and a larger proportion of non-sexually active (past or present) adolescents perceived their families as balanced (higher functioning) as compared to sexually active adolescents (past or present).

Trends from the table indicate that currently sexually active adolescents generally perceived their families as being less adaptive, less cohesive, and overall, less functioning than adolescents who indicated that they are not currently sexually active. Given these findings, a further exploration of the relationship between current sexual activity on family functioning and sexual decision making skills was conducted in order to explore whether or not sexual activity had a main effect on that relationship.

A two way between-groups analysis of variance was conducted to explore the impact of sexual activity (currently sexual active vs. not currently sexually active) and family functioning on sexual decision making skills. First, adaptability was used as the second independent variable. There was a statistically significant main effect for sexual activity on communication about sex ($F$ (1, 129) = 17.13, $p$ <.01), sexual decision making ($F$ (1, 125) = 4.58, $p$ <.05), and communicating boundaries ($F$ (1, 128) = 5.14, $p$ <.05). Adolescents, who indicated that they were currently sexually active, generally had higher scores on the comfort communicating about sex and boundaries scale and lower scores on the sexual decision making scale, than adolescents who indicated that they were not presently sexually active. The relationship between sexually active adolescents and

sexual decision making was linear, as adolescents who perceived their families as being less adaptable (rigid) scored lower ($M$=10.50), and those who perceived their families as more adaptable (very flexible) scored higher on sexual decision making ($M$=12.33). This indicated that although sexually active adolescents feel more comfortable talking about sex and boundaries than non-sexually active adolescents, that does not necessarily translate into actions as they also spend less time thinking about the consequences of their choices, gathering information, and discussing it with others. There were no interaction effects reported.

A two way ANOVA was also used to investigate the effect of cohesion and sexual activity on sexual decision making skills. Although there were no significant main or interaction effects, an interesting trend appeared. Adolescents who indicated they were not currently sexually active displayed a negative linear relationship between cohesion and comfort talking about sex. Namely, the more cohesive adolescents perceived their families, the less comfortable they were communicating about sex. Means on cohesion for non-sexually active adolescents were: disengaged ($M$=15.76*);* separated ($M$=16.35); connected ($M$=15.92); and very connected ($M$=13.00). Sexual activity had no main or interaction effects with cohesion on sexual decision making, comfort asserting boundaries, and communicating boundaries.

To explore the relationship of sexual activity and family types on adolescent sexual decision making skills, a two way ANOVA was employed. Findings showed sexual activity had a significant main effect on communicating about sex ($F$ (1, 125) = 13.48, $p$ <.01). Interestingly, a curvilinear relationship was illustrated by the means plot for sexually active adolescents only, where adolescents from mid-range family types

scored slightly higher (*M*=18.11), than adolescents from unbalanced (*M*=17.2) and balanced (*M*=17.11) family types on the comfort communicating about sex scale. A positive linear relationship was seen when examining non-sexually active adolescents' relationship between communication about sex scores and family type. Generally, sexually active adolescents scored higher on the communication about sex scale, indicating that they are more comfortable talking about sex than non-sexually active adolescents (unbalanced *M*=14.74*;* mid-range *M*=16.18*;* balanced *M*=16.18*).*

Sexual activity also had a main effect on family type and communicating boundaries ($F$ (1, 130) = 5.08, $p$ <.05). A curvilinear relationship was illustrated for sexually active adolescents' relationship between communicating boundaries scores and family type. Sexually active adolescents from unbalanced families had a mean communication about boundaries score of 15.33, adolescents from mid-range family types had a mean score of 14.4, and adolescents from balanced families had a mean communication about boundaries score of 15.2. This highlights that sexually active adolescents did not feel any less or more comfortable communicating about boundaries if they came from a balanced or unbalanced family. However, sexually active adolescents from perceived mid-range families, felt less comfortable communicating about boundaries than the other two family groups.

Non-sexually active adolescents, on the other hand, showed a linear relationship between communicating boundaries and family types. Non-sexually active adolescents from unbalanced family types had a mean communicating boundaries score of 13.78, adolescents from mid-range family types a mean score of 14.24, and adolescents from balanced families had a mean score of 14.54. Generally, this highlights that sexually

active adolescents appeared to be more comfortable communicating boundaries than non-sexually active adolescents. Figure 3 below illustrates the curvilinear and linear relationships for sexually active and non-sexually active adolescents.

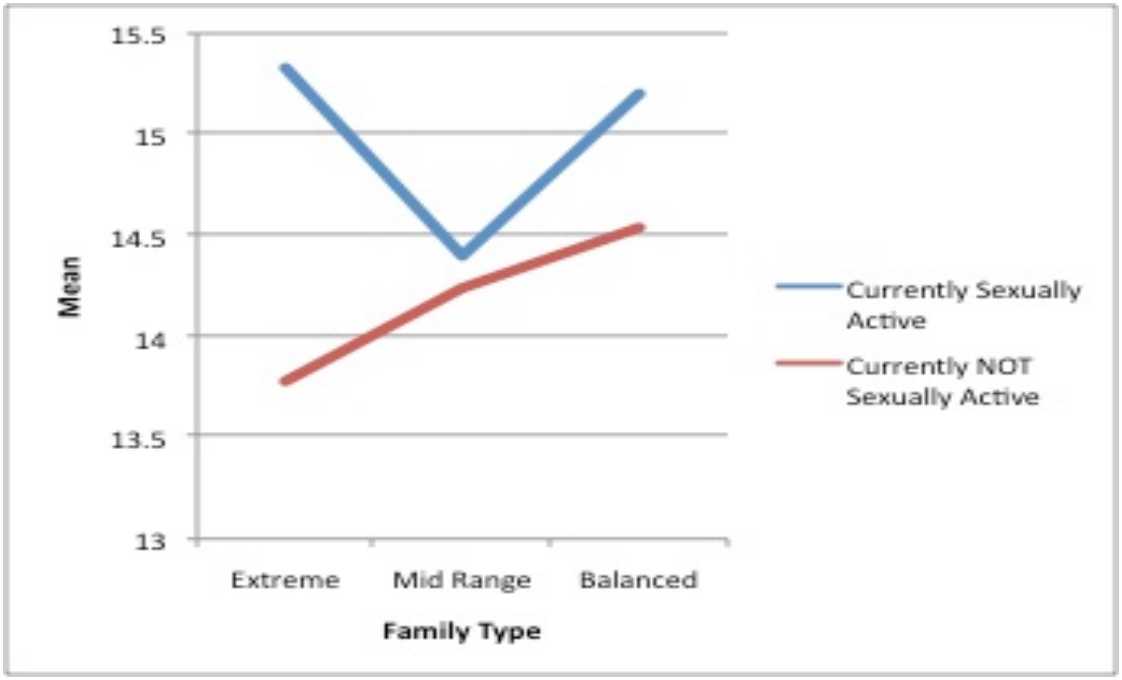


*Figure 3***.** Sexual Activity and Family Type Effects on Communicating Boundaries.

There were no interaction effects reported with sexual activity and family type on adolescent sexual decision making scores. Although outcome scales such as comfort asserting boundaries and sexual decision making were non-significant, both scales showed a linear relationship between family type and scale scores for both sexually active and no-sexually active adolescents. General trends showed that sexually active adolescents scored slightly lower on sexual decision making than did non-sexually active adolescents. Adolescents from unbalanced families perceived themselves to be less comfortable asserting their boundaries, whereas adolescents from balanced families

perceived themselves to be more comfortable asserting boundaries. This was quite evident for balanced family types, where sexually active adolescents had a mean score of 3.60 and non-sexually active adolescents had a mean score of 4.07, showing a trend where sexually active adolescents from balanced families feel more comfortable saying 'no' than non-sexually active adolescents from balanced families.

Table 16 below displays a summary of the statistically significant relationships found between sexual activity, cohesion, adaptability, family type, and sexual decision making skills. Sexual active adolescents were significantly more comfortable talking about sex and their personal sexual boundaries than non-sexually active adolescents. However, sexually active adolescents also spent significantly less time thinking about the consequences of their choices, gathering information, and discussing it with others.

Table 16

*Summary of Statistically Significant Findings – Sexual Activity*

| *Outcome Variable* | *Scores* | **Currently Sexually Active** | | | **Currently NOT Sexually Active** | | |
|---|---|---|---|---|---|---|---|
| | | ***Adaptability*** | ***Cohesion*** | ***Family Type*** | ***Adaptability*** | ***Cohesion*** | ***Family Type*** |
| Sexual Decision Making | *Low* | X* | _ | _ | _ | _ | _ |
| | *High* | _ | _ | _ | X* | _ | _ |
| Comfort Communicating About Sex | *Low* | _ | _ | _ | X* | _ | X* |
| | *High* | X* | _ | X** | _ | _ | _ |
| Comfort Communicating Sexual Boundaries | *Low* | _ | _ | - | _ | _ | X* |
| | *High* | _ | _ | X** | _ | _ | - |

NB. In relation to statistics already presented, these are the significant relationships found in the data.
* Findings indicated a positive linear relationship between variables.
** Findings indicated a curvilinear relationship between variables.

*Summary*

The main objective of this study was to investigate whether or not there was a relationship between family functioning and adolescent sexual decision making skills. Furthermore, the study also explored the influence of contextual and structural variables, such as gender, family structure, and sexual activity and their influence on that relationship. Findings conclusively showed a relationship between family functioning and adolescent sexual decision making skills. Specifically, cohesion showed a significant relationship with comfort communicating sexual boundaries and sexual decision making; adaptability showed a significant relationship with frequency of communicating about sex with friends within the past month; and family type showed a significant relationship with comfort communicating about sex, sexual decision making, and frequency communicating about sex with friends and parents within the past month. Furthermore, these findings also depicted a linear relationship between the family dimensions and the outcome variables.

When examining potentially influential contextual and structural variables, the following results were shown. Gender analysis illustrated that females were more likely than males to discuss birth control with their friends within the past month and females from families perceived as more adaptive scored higher on sexual decision making than males. The influence of gender on family type also highlighted a positive linear relationship between variables. Females from families perceived as balanced scored higher on sexual decision making than males from families perceived as balanced.

Family structure had no significant relationship on the independent and dependent variables in this study. Despite the non-significant relationship, the mean plots revealed a

positive linear relationship between family structure and family types on sexual decision making skills scale scores.

Sexual activity was proven to be a very influential variable on the relationship between family functioning and adolescent sexual decision making skills. Sexual activity had a main effect on the following relationships: adaptability and sexual decision making, adaptability and comfort communicating about sex; family type and comfort communicating about sex, and family type and comfort communicating about boundaries.

Sexually active adolescents were significantly more comfortable talking about sex and their personal sexual boundaries than non-sexually active adolescents. However, sexually active adolescents also spent significantly less time thinking about the consequences of their choices, gathering information, and discussing it with others. Adolescents from unbalanced families perceived themselves to be less comfortable asserting their boundaries, whereas adolescents from balanced families perceived themselves to be more comfortable asserting boundaries.

The next chapter will discuss these findings and provide a dialogue around the implications of these findings.

## Discussion

The purpose of this thesis was to investigate the relationship between family functioning and adolescent sexual decision making skills. The researcher sought to examine whether or not family functioning, as conceptualized by the FACES III instrument, had a relationship to adolescents' comfort communicating about sex, the frequency they communicated about sexual topics with friends, parents, and/or partners, sexual decision making, and comfort communicating and asserting personal boundaries. In investigating the relationship between family functioning and adolescent sexual decision making, the researcher also attempted to show whether contextual and structural variables, such as gender, family structure, and sexual activity, had an influence on the relationship between family functioning and adolescent sexual decision making skills.

As a result of this research, three important and general observations can be made about family functioning and adolescent sexual decision making skills. First, findings revealed that an established theoretical model of family functioning, such as the Circumplex Model, can show the influence of family dynamics on adolescent sexual health. Secondly, family dimensions of adaptability, cohesion, and ultimately, family type have a linear relationship to adolescent sexual decision making skills, supporting the linear interpretation of FACES III. Lastly, Olson's model can be used to distinguish between adolescents with stronger sexual decision making skills and adolescents with weaker sexual decision making skills.

The following sections will further discuss specific findings framed by the five research questions presented in this study. A discussion on the implications of the findings and potential future research questions will follow.

*Research Question #1: Is there a relationship between perceived family cohesion and adolescent sexual decision making skills?*

The significant relationship between cohesion and communicating about boundaries and sexual decision making highlights that Olson's family cohesive dimensions, such as family boundary setting and family decision making, are transferable family skills to other contexts. Specifically, adolescents from families who are engaging in healthy boundary setting and family decision making are translating these types of skills to their sexual decision making skills repetoire. Families who are practicing healthy boundary setting and decision making are indirectly influencing their adolescents comfort and ability to communicate their personal sexual boundaries to their partners and providing adolescents the necessary skill set to engage in healthy sexual decision making.

Research has supported that communicating boundaries is an important aspect of healthy sexual decision making (Michels, Kropp, Eyre, & Halpern-Felsher, 2005). Brown and Mann (1990) also found that cohesive families tend to promote more competence in decision making. Furthermore, both males and females, when considering important aspects that come into play when they make a sexual decision, consider their personal sexual boundaries and the communication of those boundaries to potential sexual partners, as important elements to their sexual decisions (Michels et al., 2005). Past research has linked communication with sexual partners to increased condom use (Shoop & Davidson, 1994). This finding provides additional evidence to the literature (Michel et al., 2005) linking the importance of boundary setting in sexual decision making and the role that cohesive families play in supporting that skill.

*Research Question #2: Is there a relationship between perceived family adaptability and adolescent sexual decision making skills?*

Adolescents who perceived their families as more adaptable were more likely to discuss sex with friends at least once in the past month. In a recent study of Toronto youth, researchers found that both young women and men are most likely to seek information from friends about sex (Flicker, Flynn, Larkin, Travers, Guta, Pole, & Layne, 2009). Research has also shown that parental advice was more important in long-term, difficult decisions, while friend's opinions were more important for short-term, less important decisions (Wilks, 1986). Since the present study did not ask about the specific content of these discussions, the importance of decisions discussed with friends about sex cannot be assumed however can provide an alternative explanation to the finding. Regardless, this study showed that a families' capacity to alter behaviours, roles, and rules over time appears to influence how comfortable adolescents are with communicating about sex with their fellow peers. A family's ability to change in response to situations provides adolescents with the ability to feel comfortable talking about a sensitive topic with their peers.

*Research Question #3: Is there a relationship between family types and sexual decision making skills?*

Ineffective parenting styles have been well documented in the literature as effecting children's health outcomes. When parents are indifferent, exhibit inappropriate role modeling, or are inconsistent in setting standards of behaviour for their children, there is a much greater likelihood of problem behaviours and psychological problems (Dougherty, 1993). Positive parent relations are a protective factor for many risk taking

adolescent behaviours. Study findings support this claim - adolescents from healthier functioning families use the positive skills and strategies learned within a familial context and translate them into their sexual decision making skill set.

Communication about sex and sexual decision making skills appear to most consistently show a relationship to family functioning and relate to one another in a linear manner, as supported by the literature on the linear interpretation of FACES III. Previous research investigating the relationship between cohesion, adaptability, and communication from the adolescent's perspective has shown both cohesion and adaptability are related linearly with open communication. Barnes and Olson (1985) revealed that parents saw a curvilinear relationship between cohesion, adaptability, and communication, whereas adolescents saw a linear one.

This study's findings support the main principle of the Circumplex model - balanced families will have more positive communication skills. Adolescents from balanced families with effective family communication skills appear to translate these skills to communicating about sex with partners, friends, and parents. The importance of improving adolescents' ability to communicate about sexual topics for positive sexual health cannot be refuted. It is believed that parental communication with children about sex will deter involvement in risk behaviour. Higher quality communication has led to decreased likelihood of intercourse, delayed first intercourse for sons, decreased likelihood of daughters being pregnant, and increased contraceptive use for daughters (Fisher, 1986; Leland & Barth, 1993; Pick & Palos, 1995).

Despite these positive findings, it is important to note that the majority of the sample did not engage in these types of discussions with parents or partners. Consistent

with prior research, the majority of adolescents in this study did not communicate about sexual topics with parents and/or their partner(s). This finding is not uncommon as researchers, such as Guzman and colleagues (2003), have reported that only half (52%) of youth they surveyed felt comfortable talking with their current dating partners about sex. In addition, communication theorists suggest that establishing intimacy and learning to communicate effectively in a romantic relationship is developmentally based (Wheeless, Wheeless, & Baus, 1984). Adolescents in this sample are considered younger (mean age 14 years), hence from a developmental perspective, would report less open communication within a romantic relationship. Since adolescents are less likely to communicate with their sexual partners, yet are engaging in sexual activities at an increasingly younger age, this highlights a potential area that needs to be explored further as there are implications for long term impacts. Sexual communication is an important component of sexual relationships. Research has shown that open discussions on sexual topics are not only associated with greater sexual satisfaction but also leads to better cohesion, dyadic adjustment, and relationship satisfaction in the long run (Ferroni & Taffe, 1997).

*Research Question #4: Are there gender differences in the relationship between perceived family cohesion, adaptability, and family type and adolescent sexual decision making skills?*

Sexual decision making is shaped by gender socialization and norms for femininity and masculinity (Pearson, 2006). This study illustrates the effects of sexual socialization on gender. Females were more likely to discuss birth control with friends than males in the past month and were significantly more likely to spend time thinking

through their decisions regarding their sexual behaviours. This indicates that when males make a decision around their sexual behaviour, they spend less time thinking about the consequences of their choices, gathering information, and discussing it with others than do their female counterparts.

Research on the relationship between personal control and contraceptive risk (Pearson, 2006) can be used to explain these findings. Adolescent boys generally experience more control in sexual situations as well as feel the ability to make demands and express wishes (Gutierrez, Oh, & Gillmore, 2000; Tschann, Adler, Millstein, Gurvey, & Ellen, 2002). Therefore, a sense of self-efficacy may not always be necessary for them to take an active role in determining contraceptive risk. Hence, this may make males less likely to be concerned about issues to do with birth control and sexual decision making consequently, limiting the amount of conversations that occur on this topic. Further exploration is warranted to assess adolescent males' views on contraception and the role that they perceive themselves to have dealing with contraception within a romantic relationship.

This finding also suggests that positive, healthy family functioning may play a larger influential role on female sexual health than male. Normative ideas about masculinity and femininity as well as a wider gender inequality shape the roles and power distribution within sexual relationships (Amaro, 1995), and can explain why females from balanced families appear to be more analytical when making a decision around their sexual relationships. Although recent research has shown that male and female adolescents are becoming more similar in their sexual behaviour (Terry & Manlove, 2000), the meaning of sexual intercourse may not be the same for boys and girls,

consequently, implying different levels and depth of decision making. In addition, the gender inequality has the potential to impact the ability of girls to voice their sexual desires, to make demands within sexual relationships, and even to refuse unwanted sexual contact (Bowleg, Belgrave, & Reisen, 2000). Girls with a high sense of personal control (self efficacy) may be more likely than other girls to negotiate effectively within sexual relationships (Pearson, 2006).

*Research Question #5: Do contextual and structural features, such as family structure and sexual activity, play an influential role on the relationship between family functioning and adolescent sexual decision making skills?*

Studies using FACES have generally shown no significant relationship between family functioning and family structure (McFarlane et al., 1995; Henry & Lovelace, 1995). The results of this study mirror these findings as family structure did not have any influence on the relationship between family functioning and sexual decision making skills. The absence of a relationship between family functioning and family structure highlights a strength in using the Circumplex Model. Namely, it can be used to assess the functionality of families across different structural types, which broadens the scope of assessment when using FACES tools. It also implies that families with adolescents from non-traditional family structures do not have a perceived disadvantage in influencing their adolescent children sexual decision making skill set.

Whether or not an adolescent was currently sexually active proved to be a very influential variable on the relationship between family functioning and adolescent sexual decision making skills. Findings indicated that although sexually active adolescents feel more comfortable talking about sex and boundaries than non-sexually active adolescents

that does not necessarily translate into action. Sexually active adolescents are not only engaging in sexual activity, but are also spending less time gathering information, thinking about the consequences of their choices, and discussing their choices with others when making a decision around their sexual behaviors. Further analysis is required to explain this finding. Lower scores on sexual decision making by sexually active adolescents may be explained by their sexual experiences history. Given these experiences, sexually active adolescents may need to spend less time thinking through their sexual choices as they have already encountered these choices in the past as opposed to non-sexually active adolescents who have not had the same experiences. Alternatively, this finding may also suggest that sexually active adolescents, although having the information and skills to make positive sexual choices for themselves, may not be motivated to translate them into actual behaviors.

The lack of translation between information and attitudes and behaviours has been well documented in the learning literature. Although adolescent may hold values consistent with responsible sexual conduct, they may not be able to translate them into positive personal behaviours (Zabin, Hirsch, Smith, & Hardy, 1984; Christopher & Cate, 1984; McCabe & Killackey, 2004). Adolescents who perceived to have strong communication about sex and boundaries skills were engaging in sexual behaviours but with limited decision making. Further exploration of this finding is needed in order to identify whether being sexually active allows adolescents to practice communication and boundary setting skills, hence indicating more comfort with these skills, or whether family dynamics are the main mediating influence on comfort communicating about sex and boundaries. There is also no data to conclude that adolescents who are currently

sexually active in this study are engaging in risky sexual behaviours. Regardless, the finding provides an interesting dialogue on whether or not there are certain sexual decision making skills that are more influential in promoting safe and healthy sexual decisions. It also puts forth an interesting discussion on whether the focus of the promotion of sexual decision making skills should be for the purposes of abstinence or for the purposes of safe and healthy sexual behaviours and choices.

*Implications and Recommendations for Future Research*

Understanding what underlying family mechanisms, as operationalized by the Circumplex Model, contribute to adolescent sexual decision-making skills, has significant theoretical and practical implications for educators, sexual health practitioners, policy makers, parents, and adolescents.

Findings of the study will not only contribute to our understanding of protective factors for adolescent sexual risk-taking but also have implications for the focus of sexual health curriculum in the classroom. If males are spending less time thinking through their sexual choices, and are currently sexually active, this indicates a potential focus on this topic area both within a family and sexual health context. Furthermore, gender differences in the data suggest that the targeting of learning approaches within the classroom to certain groups of students may be instrumental in facilitating competent decision making. For instance, acknowledging males' and females' different styles of communication may be a vital factor to facilitate learning.

Study findings also provide evidence for the need for sexual health education to be a comprehensive and integrated activity in order to be successful. Social and emotional support from families, friends, and communities is associated with better

sexual and reproductive health. Commendador (2007) agrees that sexual health practitioners need to take an active role in creating strategies to facilitate competent decision making and be involved in research that includes studying measures of cognitive development and decision making, ways to help the adolescents engage in consequential thinking and the relationship context in which sexual and contraceptive decision making occurs, and family and partner relationships and their influences on adolescent decision making and contraceptive behaviour.

Further, study findings provide families insight into their own dynamics and how they influence their children's sexual behaviours. Parents are the most significant source of social support through the early years of adolescence. If current sexual health programming curriculum involved educating parents on how to positively influence their children's sexual behaviours, we would be empowering parents to not rely on inaccurate messages from peers, media, and even schools, to educate their children about positive sexual health. Furthermore, since sexual health education curriculum requirements are under provincial jurisdiction in Canada, program content and extent of implementation varies across provinces and territories. Although all provinces and territories of Canada have programs, the extent and quality vary considerably both regionally and locally (Barrett, 1994). Families have the potential to provide the most consistent influence on sexual health development and education.

The present sexual health education platform advocates for comprehensive sexual health education programming. Approaching our understanding of adolescent sexual health from a family systems perspective and stressing a parental component in programming complements this agenda. Families do not only influence the development

of a sexual identity, values, beliefs, and information around sexual health for their children, but they are also in the position to act as a moderating force on the influences of sexual messaging and pressures that adolescent face today. Families strengthen the capacity of existing sources aimed at educating adolescents about healthy sexual health.

Further investigation is needed to fully explore the impact of family functioning on adolescent sexual behaviours. Potential future research topics include, but are not limited to, exploring meditating and moderating factors on adolescent sexual skills for those adolescents that come from unhealthy functioning families, such as the influence of adolescent self-efficacy and self-esteem on the relationships presented in this study; exploring whether or not currently sexually active adolescents are engaging in safe sexual behaviours in order to fully understand if adolescent sexual decision making skills promote positive sexual health; exploring the content of sexual discussion with parents, friends, and/or partners to understand what adolescents during this stage of development find important and relevant to discuss and know in regard to their own sexual health; and to explore the families perspective on their levels of functioning and compare it to the adolescents.

This is the first known study to address adolescent sexual decision making skills using a theoretical model of family functioning. Findings highlight that parents have the potential to mitigate positive sexual health outcomes for their adolescent children. This study promotes sex positive sexual health education. Learning more about how family dynamics may influence the sexual socialization of adolescent children in terms of communication and boundary setting skills is important for future inquiry into understanding adolescent sexual behaviour, promoting adolescent sexual health, and

responsible and informed sexuality for the purposes of healthy sexual health across the life span.

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## Appendix A

Are We There Yet?

USING THEATRE IN TEEN SEXUALITY EDUCATION

COMMUNITY UNIVERSITY RESEARCH ALLIANCE

**Dear Grade 9 Student,**

This spring ***Are We There Yet?*** is coming to your school. It's a funny, interactive play and workshop that shows teens facing questions and decisions about relationships and encourages you, the audience, to help and advise them as they try to figure what to do. *Are We There Yet?* has been touring in Edmonton, Alberta in schools for more than eight years. We hope that you'll enjoy the show as much as teens have in the past.

**Today, I'm writing to ask for your help**. A team of community organizations and researchers are now in the third year of studying this program's effectiveness in helping teens, like you, make good, healthy decisions about sexuality and relationships.

It is very important for the researchers to hear thoughts and opinions about the program from students like you. We want it to be as useful and interesting to teens as possible because the program is being adapted and shown in Edmonton, Nova Scotia, Saskatchewan, and in Vancouver, and we'd like it to be the strongest program possible.

This important research can't be done without teens' help. If you agree to take part, you will fill out a questionnaire at school before and after you see the *Are We There Yet?* program and again a month later. You may find that some questions on the questionnaire are of a sensitive nature. You may also be invited to participate in an interview, or focus group, but in these cases, no questions will be asked about your own specific sexual experience. If at any point you'd like to stop participating, you can.

But, don't worry! **Your privacy will be completely protected.** None of the questionnaires will have your name on it. Your teachers and parents will not see your responses. Your name will never be used in connection with this study if it is published or presented.

You should only participate if you want to. If you'd rather not, your decision will not affect your grades. If you need some questions answered before you decide, you can refer to our website or contact me directly; all of our contact information is listed at the bottom of this letter. Keep in mind that even if you agree to participate now, you can stop at any time during the evaluation.

Thank you for considering this request and I look forward to working with you on this fun and important project!

Sincerely,

Jan Selman

Principal Investigator

3-146 Fine Arts Building ◊ University of Alberta ◊ Edmonton Alberta T6G 2C9 ◊ awty@ualberta.caTel (780) 492-5493 ◊ Fax (780) 492-8215 ◊ www.ualberta.ca/awty

Are We There Yet?

USING THEATRE IN TEEN SEXUALITY EDUCATION

COMMUNITY UNIVERSITY RESEARCH ALLIANCE

**CONSENT FORM**

**Please sign and return this form to your teacher by [DATE].**

When you sign this form, you are agreeing with the following statements:

- My role in this research project has been explained to me.
- I've been invited to ask questions and they've been answered. New information or risks will be communicated to me if they arise.
- I understand that I can stop taking part in the study at any time with no penalty and I will not be asked to provide a reason.
- If I have any questions about the study, I can talk to the researchers or contact the project supervisor, Jan Selman.
- I understand that my privacy will be protected by the researchers.
- I understand that I am not waiving any legal or medical rights by participating.

Understanding the above, I give my consent to (please check all that are applicable):

□ Participate in this research project

□ Participate in an audio-taped one-to-one interview (if invited)

□ Participate in an audio-taped focus group (if invited)

Date: _____

Name of participant (print): _____

Signature of participant: _____

Email and/or phone number (to be used ***only*** to issue an invitation to interview or focus group):

_____

**Because of your age, we need**

**to ask your parent/guardian to read this letter and sign it as well.**

**Parent/Guardian Consent**

I have read and understood the attached information. I consent to the involvement of the above participant.

Date: _____

Name of parent/guardian (print): _____

Signature of parent/guardian: _____

……

*The plan for this study has been reviewed and approved by the Faculty of Arts, Science, Law Research Ethics Board (FASL REB) at the University of Alberta. (For questions regarding participant rights and ethical conduct of research, contact the Chair of the FASL REB at (780-492-2151)The personal information requested on this form is collected under the authority of Section 33( c ) of the Alberta Freedom of Information and Protection of Privacy Act for research purposes only.*

## Appendix B

## Sexual Decision-Making Skills

(*Source: Mathtech Questionnaires: Sexuality Questionnaires for Adolescents; Douglas Kirby; from the Handbook of Sexuality-Related Measures)*

**0 – Does not apply**
**1 – Almost never do**
**2 – Do sometimes**
**3 – Half the time**
**4 – Usually**
**5 – Almost always**

1. When you have to make a decision about your sexual behaviour, how often do you think hard about the consequences of each possible choice?

2. When you have to make a decision about your sexual behaviour, how often do you first get as much information as you can before deciding?

3. When you have to make a decision about your sexual behaviour, how often do you first discuss it with others?

4. When you have to make a decision about your sexual behaviour, how often do you make it on the spot without worrying about the consequences?

## Appendix C

## Frequency of Sexual Communication Scale

*(Source: Mathtech Questionnaires: Sexuality Questionnaires for Adolescents; Douglas Kirby; from the Handbook of Sexuality-Related Measures)*

The following questions ask how many times you did some things during the last month.

**0 – None**
**1 – Once**
**2 – Twice**
**3 – 3 to 5 times**
**4 – More than 5 times**

1. During the last month, how many times have you had a conversation or discussion about sex with your parents?

2. During the last month, how many times have you had a conversation or discussion about sex with your friends?

3. During the last month, how many times have you had a conversation or discussion about sex with a date or boy/girlfriend?

4. During the last month, how many times have you had a conversation or discussion about birth control with your parents?

5. During the last month, how many times have you had a conversation or discussion about birth control with your friends?

6. During the last month, how many times have you had a conversation or discussion about birth control with a date or boy/girlfriend?

## Appendix D

## Communication about Sexuality Scale

**1 if you strongly disagree with the statement**
**2 if you disagree with the statement**
**3 if you feel neutral about the statement**
**4 if you agree with the statement**
**5 if you strongly agree with the statement**

1. When I bring up sexual topics, I am almost always embarrassed.
2. When others bring up sexual topics, I am almost always embarrassed.
3. I talk openly with friends about my feelings on sexuality.
4. I could discuss past sexual activities with a boy/girlfriend.
5. I never know what to say when I need to talk about sexual issues with others.

## Appendix E

## Communicating Boundaries

**1 if you strongly disagree with the statement**
**2 if you disagree with the statement**
**3 if you feel neutral about the statement**
**4 if you agree with the statement**
**5 if you strongly agree with the statement**

1. It is really hard to bring up the issue of sexual boundaries with a boy/girlfriend.

2. When a boy/girlfriend says they do not want to do certain intimate physical activities I go along with what they want.

3. It is easy to suggest to my boy/girlfriend what my sexual limits are.

4. I would encourage a boy/girlfriend to tell me what intimate physical activities are comfortable for them.

# Appendix F

**Comfort being sexually assertive (saying "no")**

**0 – Does not apply to me**
**1 – Comfortable**
**2 – A little uncomfortable**
**3 – Somewhat uncomfortable**
**4 – Uncomfortable**

1. Telling a date or boy/girlfriend what you want to do and do not want to do sexually.
2. Saying "no" to a sexual come-on.

# Appendix G
# FACES III
*(Olson, Portner & Lavee, 1985)*

1 – Almost Never
2 – Once in a While
3 – Sometimes
4 – Frequently
5 – Almost Always

DESCRIBE YOUR FAMILY.

**Cohesion**

1. Family members ask each other for help.

3. We approve of each other's friends.

5. We like to do things with just our immediate family.

7. Family members feel closer to other family members than to people outside of the family.

9. Family members like to spend free time with each other.

11. Family members feel very close to each other.

13. When our family gets together for activities, everybody is present.

15. We can easily think of things to do together as a family.

17. Family members consult other family members on their decisions.

19. Family togetherness is very important.

**Adaptability**

2. In solving problems, the children's suggestions are followed.

4. Children have a say in their discipline.

6. Different people act as leaders in our family.

8. Our family is able to change its way of handling tasks.

10. Parent(s) and children discuss punishment together.

12. The children make the decisions in our family.

14. Rules change in our family.

16. We shift household responsibilities from person to person.

18. It is hard to identify the leader(s) in our family.

20. In our family, it is hard to tell who does which household chores.