

ADOLESCENT MOTHERS:
THE RELATIONSHIP BETWEEN ENACTED SOCIAL SUPPORT
AND PARENTING COMPETENCE

BY

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A Thesis
Submitted to the Faculty of Graduate Studies
In Partial fulfilment of the Requirements for the Degree of

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ABSTRACT

Adolescent parenting has been cited as the cause for long term psychological, economic and social problems for adolescent mothers and their children. The consequences of adolescent parenting include difficulty in completing high school and obtaining meaningful employment. This quantitative study utilized Belsky's (1984) Determinants of Parenting Model as the framework to examine the relationship between the maternal characteristics of age, self-esteem, ethnicity, the child characteristic of fussiness and the situational characteristics of socioeconomic status and enacted social support and the parenting competence of Caucasian and First Nation/Métis adolescent mothers using stepwise multiple regression. Emotional support, ethnicity, and socioeconomic status were found to be significant predictors of parenting competence. The discussion includes recommendations for future research, applications for education, direct care, and policy and program development.

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Chapter I:

STATEMENT OF THE PROBLEM

This first chapter provides the background for the study by focusing on the scope of the problems associated with adolescent mothers, the purpose of the study, the conceptual framework, the definitions of the concepts and the five research questions.

Background

Adolescent pregnancy is considered a major public health problem in many countries as it is often seen as contributing to a multitude of long term psychological, economic and social problems for teen mothers and their infants (Herrmann, Van Cleve, & Levison, 1998). Adolescent mothers have been found to experience higher levels of parenting stress, to be less responsive and sensitive in interactions with their children and to provide a lower quality of stimulation at home than adult mothers (Lesser, Anderson, & Koniak-Griffin, 1998). Some research suggests that because young, primiparous mothers often experience a great deal of stress without sufficient social support, their ability to parent is poor, and this may lead to inadequate mother-infant interactions and insecure infant-mother attachments (Garcia-Coll, Hoffman, & Oh, 1987). The implications of adolescent parenting are significant and may have long-term effects for the mother and child (ren).

The introduction of parenting into an adolescent's life disrupts an adolescent mother's completion of her basic education, contributes to limited career and economic opportunities (Alpers, 1998; Herrmann et al., 1998; Lesser, Koniak-Griffin, & Anderson, 1999b) and may limit the adolescent's ability to provide basic nutritional and housing

needs for herself and her child(ren). The interruption of an adolescent woman's education can start the beginning of several negative consequences. If adolescent women are doing poorly academically, they may view pregnancy as a positive alternative to educational opportunities or a career that provides them with a task that they may consider that they can complete successfully. For some adolescent women, the combination of low socioeconomic status, poor academic achievement, lack of vocational opportunities and the subsequent feelings of low self-worth may lead the adolescent to view pregnancy as the only reasonable alternative (Lesser & Escoto-Lloyd, 1999a).

The adolescent mother's ability to parent her child competently and provide a stimulating home environment is affected by the adolescent mother's age (Berlin, Brady-Smith, & Brooks-Gunn, 2002; Luster & Dubow, 1990; Secco, Ateah, Woodgate, & Moffatt, 2002), self-esteem (Diehl, 1997; Mercer, 1981; Mercer & Ferketich, 1995; Walker, Crain, & Thompson, 1986b), ethnicity (Boyce, Chesterman, & Winkleby, 1991; Hannan & Luster, 1991; Luster, Bates, Fitzgerald, Vandenbelt, & Key, 2000; Secco & Moffatt, 2003a), socioeconomic status (Furstenberg, Brooks-Gunn, & Morgan, 1987; Luster et al., 1990; Luster et al., 2000; Secco et al., 2002) and social support (Herrmann et al., 1998; Luster et al., 2000; Schellenbach, Whitman, & Borkowski, 1992; Secco et al., 2002).

The multitude of factors that negatively influence the adolescent mother's ability to competently parent her child (ren) may result in cumulative risk to the infant. For example, the quality of the home environment will be affected if the adolescent mother is unaware or unable to provide stimulation through toys and books. Social isolation in

combination with low levels of stimulation have the potential to decrease the amount of social interaction that the child experiences. Adolescent mothers may rely solely on the child for affection without the realization that the child requires a structured environment and maternal responsiveness. The adolescent mother's lack of understanding of the child (ren)'s developmental capabilities and the responsibilities of parenthood may be a critical determinant of child maltreatment (Dukewich, Borkowski, & Whitman, 1996). Exposure to one or more risk factors influences the adolescent mother's ability to adequately manage the situation. As stressors accumulate the adolescent mother's resources will likely diminish unless a strong support system is in place (Hannan et al., 1991). Less positive parenting behaviours may result from impoverished surroundings, the developmental factors of adolescent mothers or a combination of these two risk factors (Panzarine, 1988). The quality of the adolescent mother's interaction with her child may increase the infant's risk of delay in the areas of cognitive, language, social developmental, (Panzarine, 1988) physical and emotional development and poor school performance (Herrmann et al., 1998). The issue of adolescent mothers is significant and the long-term consequences can be devastating to both mother and child. However, some adolescent mothers are able to parent competently and successfully build their lives. It is imperative to examine influencing factors to begin to determine what factors decrease risks to the child and provide adequate meaningful support to the adolescent mothers.

Scope of the Problem

Adolescent pregnancy and subsequent parenting is a significant issue in Canada and particularly for Manitoba. In 1998, the Canadian adolescent birthrate was 19.8 live births

per 1,000 women, a decrease of 0.2 from the previous year (Statistics Canada, 2003).

Adolescent pregnancy is an issue for First Nations women in particular as births to these females aged 10 to 14 is nine times of their Canadian counterparts, for females aged 15 to 19 the birth rate was almost five times higher in 1999 (Health Canada, 2003a).

In 1998 in Manitoba, the birthrate for women, aged 15-19, was 38.7 live births per 1,000 women, an increase of 2.4 from 1997. The majority of the births in Manitoba occurred with adolescents aged 18-19 (61.6 per 1,000). This rate also increased 3.1 births per 1000 from the previous year. Manitoba's adolescent birth rate is second only to the Northwest Territories, including Nunavut, in Canada (Statistics Canada, 2003). While the Canadian adolescent birthrate has decreased, the Manitoban birth rate increased 2.4 % from 1997 to 1998. The increased adolescent birth rate in Manitoba suggests that adolescent pregnancy and parenting remains a significant issue in Manitoba.

While a multitude of factors contribute to the adolescent mother's ability to parent her child competently, there is little knowledge about the role of any one factor. Social support has been demonstrated to have a beneficial effect on an individual's health and ability to manage life events (Percy & McIntyre, 2001). Adolescent mothers who receive social support from their families and friends have demonstrated higher parenting competence (Dormire, Strauss, & Clarke, 1989; Flynn, 1999; Herrmann et al., 1998; Hess, Papas, & Black, 2002; O'Callaghan, Borkowski, Whitman, Maxwell, & Keogh, 1999). Social support for adolescent mothers can take the form of financial, emotional, and helpful behaviours that assist the adolescent mother to meet her and her child's needs. Adolescent mothers' sense of competence and acceptance of the child have been

related to social support (Dormire et al., 1989). The majority of studies assessing the role of social support in mothering by adolescents have been cross-sectional in nature thus limiting the conclusions about relationships among variables (Secco & Moffatt, 1994). Enacted social support are actions that friends or family perform when they render assistance such as money or childcare, emotional support or guidance (Barrera, 1986) to an adolescent mother. Examining the subscales of enacted social support, guidance, emotional support and tangible support, should provide further detail into which aspects of social support are most helpful to the adolescent. Enacted social support is an important aspect of an adolescent mother's life and determining the relationship of enacted social support to parenting competence may provide some insight into the adolescent mother's ability to parent competently.

Determining the aspects of social support that are essential for positive parenting will benefit both the mother and the child. Parenting is a complex phenomenon that is affected by various personal and situational factors. The quality of the home environment or the extent to which the home promotes positive child development, is an indicator of the tasks of parenting and parenting competence of the adolescent mother (Hanna, 2001; Kendrick et al., 2000; Luster et al., 2000).

Purpose of the Study

This explanatory study utilized Belsky's (1984) Determinants of Parenting model as a framework to examine the relationship between enacted social support and performed parenting competence of adolescent mothers. The proposed study built on the work of Secco and Moffatt (2003b) who examined enacted social support using the total scores

for the Inventory of Socially Supportive Behaviours (ISSB) among Métis, First Nations, and Caucasian adolescent mothers. The focus of this study was on the individual subscales of the ISSB, guidance, emotional support, and tangible assistance. Multiple regression techniques were employed to control the variables of age, ethnicity, self-esteem, the child characteristic of fussiness and socioeconomic status, to remove their confounding influences, and to determine the relationship between the types of enacted social support and the adolescent mother's parenting competence. Controlling for some of the factors that impact adolescent parenting provided further insight into the complex interactions that contribute to an adolescent mother's ability to provide a stimulating cognitive home environment and provide information that can be used to develop programs for adolescents that will contribute to their ability to provide cognitively stimulating environments for their child (ren). Determining the impact of enacted social support on adolescent parenting provided valuable information in determining factors that may have a positive relationship on the parenting ability of adolescent mothers.

Significance of the Study

This study contributes to the understanding of parenting among single, adolescent, Caucasian, and First Nations/Métis mothers to provide program developers, policy makers, and direct care providers with an understanding of the enacted social support characteristics of both Caucasian, and First Nation/ Métis adolescent mothers. Information obtained may be utilized to contribute to the current approach taken regarding the provision of services for the aggregate. Knowledge of the factors that contribute to an adolescent mother's ability to parent should inform program

development aimed at assisting adolescent mothers to provide cognitively stimulating home environments for their children. Findings may also be useful for policy makers in their decisions regarding factors needed by adolescent mothers to parent competently.

The results of this study contribute to the understanding of parenting and social support needs for single, adolescent Caucasian, and First Nations/Métis mothers for direct care providers including registered nurses. Information regarding the social support needs of adolescent mothers may be useful during the initial assessment of an adolescent when she first becomes pregnant to determine the level of social support she has available to her. Public health nurses, nurses in obstetrical clinics and nurses in other venues which adolescent mothers attend may use their initial assessment of social support to determine appropriate interventions for the adolescent mother. The assessment may indicate that further social support is necessary and the health care provider could initiate community supports to assist the adolescent mother in her parenting competence and to possibly avoid future complications. Determining the impact of ethnicity on parenting competence may inform health care providers of what aspects of enacted social support are more appropriate for different ethnic groups.

Theoretical/Conceptual Framework

This study incorporated a model that describes the various factors that impact on an individual's ability to parent competently. Belsky's (1984) Determinants of Parenting model proposes that parenting behaviour is influenced by personal characteristics of the parent, contextual sources of stress and support and characteristics of the child. The model presumes that parenting is directly influenced by forces emanating from within the

parent, within the individual child and from the broader social context in which the parent-child relationship is embedded, specifically marital relations, social networks and occupational experiences of parents (Belsky, 1984). The model has three domains: (a) the personal psychological resources of the parents; (b) the characteristics of the child; and (c) contextual sources of stress and support that include the marital relations, the social networks, and the occupational experiences of parents.

According to Belsky's (1984) model an unsupportive home environment would be expected if the parents lacked personal resources, if the child was difficult to care for and if the family context was characterized by high levels of stress and few resources. Belsky predicted that a child's chance of experiencing a negative quality home environment was greatest if all three factors combine to undermine effective parenting. Belsky (1984) argued that the three primary determinants of parenting have differential influence. He asserted that personal resources were most influential, followed by the contextual sources of stress and support, and thirdly, by child characteristics. Adolescent mothers often lack personal resources, experience high levels of stress, low levels of social support and perceive their child (ren) as difficult to care for. The model also includes marital relationships and work as part of the social support system. Adolescent mothers may not be involved in a marital relationship or a relationship with a significant other. Belsky has accounted for this in his theory by indicating that in circumstances such as single or teenage parenthood, social networks would presumably serve as the principal source of support. Belsky's theory has been tested and supported in part by examining factors related to the quality of the home environments that mothers provide for their infant

(Hannan et al., 1991). The variables examined in this study coincide with Belsky's (1984) determinants of parenting model and are directly related to the experience of parenting for adolescent mothers.

Belsky's (1984) model (Appendix A) provided the framework to study the relationship between enacted social support and parenting competence among adolescent mothers. The independent variables within this study are represented by three categories: (1) maternal characteristics, (2) child characteristic and (3) and situational characteristics. Maternal characteristics that were examined in this study were the adolescent's age, self-esteem, and ethnicity. The child characteristic was measured by child temperament. The situational characteristics that were examined in this study were socioeconomic status and enacted social support specifically, guidance, emotional and tangible support. The dependent variable in this study is performed parenting competence, which will be measured by the quality of the home environment (Caldwell & Bradley, 1984). The theoretical framework utilized in this study indicates that a lack of resources, either material or supportive will have a negative impact on the mother's ability to parent. The framework proposes that stressors in any system of a parent's life may result in a decrease of parenting competence.

Research Questions

The primary research question is how does enacted social support relate to parenting competence while controlling for self-esteem, age, ethnicity, and socioeconomic status? Other proposed questions to be examined in this study are the following: Are there differences in the amount of enacted social support, specifically guidance, emotional and

tangible support, between younger and older adolescent mothers?; Are there differences in the amount of enacted social support, specifically guidance, emotional and tangible support, between Caucasian and First Nation/Métis mothers?; and What are the relationships among the adolescent mother's maternal characteristics (self-esteem, age, ethnicity), the situational characteristics (enacted social support and socioeconomic status) and the child characteristic (fussiness) on the quality of the home environment?

Concept Definitions

The key concepts that required definition were enacted social support and parenting competence. Social support has been described as a multidimensional construct that has both direct effects and indirect effects (Schellenbach et al., 1992). Tangible assistance, such as money or babysitting, or emotional support such as listening and empathizing with the mother are seen as direct effects (Barrera, 1986). The indirect effect of social support on the recipient of the support refers to increased self-esteem, self-confidence, feelings of support, and belonging (Herrmann et al., 1998). Social support in this study refers to support that is available to adolescent mothers in their natural settings from family and friends.

A conceptual analysis of social support revealed four defining attributes of social support, namely emotional, instrumental, informational and appraisal support. Emotional support has been defined as the provision of caring, empathy, love, respect, and trust. Instrumental support has been defined as the provision of tangible goods and services or tangible aid. Informational support has been defined as information that is provided to another during a time of stress. The informational support assists an individual to

problem solve (Hinson Langford, Bowsher, Maloney, & Lillis, 1997). Appraisal support involves the communication of information which is relevant to self-evaluation, rather than problem solving (Hinson Langford et al., 1997). Appraisal support refers to information that is provided to the adolescent mother to affirm the appropriateness of acts or statements made by her. Within each defining attribute, exchange or reciprocity must be present for support to continue (Hinson Langford et al., 1997). A high quality support system has been described as having a buffering effect and overcoming the effects of vulnerability and adolescent dysfunction (Gottlieb, 1983; Schellenbach et al., 1992). The interaction with another individual, network, group or organization provides individuals with opportunities for feedback about themselves and may offset deficiencies in these communications (Sadler, Anderson, & Sabatelli, 2001).

Parenting that is sensitively attuned to children's capabilities and to the developmental task they face promotes a variety of highly valued developmental outcomes, including emotional security, behavioural independence, social competence and intellectual achievement (Belsky, Lerner, & Spanier, 1984). Parenting competence for this study is defined as a mother's ability to anticipate and provide for her child's emotional, physical, spiritual, and cultural needs by providing a quality home environment. Competence refers to having the adequate knowledge, skill and judgement to attend to a child's needs.

Quality of a quality home environment has been delineated by Caldwell and Bradley (1984) as including the following maternal behaviours: emotional and verbal responsiveness of the mother, avoidance of restriction and punishment, organization of the physical and temporal environment, provision of appropriate play materials, *Maternal Involvement*

with the Child and opportunities for variety in daily stimulation for the child. These aspects of parenting competence were reviewed in this study.

Summary

This chapter has outlined the background, including the scope of the problem, purpose of the study including significance of the study, conceptual framework, and the research questions. The study's fit with the conceptual framework was also discussed along with the concept definitions pertaining to key variables in the study.

Chapter II:

LITERATURE REVIEW

A review of the literature related to adolescent mothers and parenting competence revealed a significant amount of research in the area of adolescent mothers. The review of the literature utilized online databases of CINAHL, ERIC, Blackwell Synergy, and Science Direct. A manual search of key articles was also performed. This review of the current literature focuses on factors affecting an adolescent mother and parenting competence, adolescent development, the ethnic variances in adolescent mothers, child characteristics and the influence on parenting competence, social support and its influence on adolescent mothers, parenting competence and concludes with a summary of the review.

Maternal Characteristics

The maternal characteristics that were utilized in this study were maternal age, self-esteem, and the ethnicity of the adolescent.

Age

Adolescents' age and struggle with their personal developmental issues, such as egocentrism, and striving for independence, can contribute to difficulty with forming supportive, nurturing relationships with their children (Berlin et al., 2002). Luster and Dubow (1990) examined the quality of care provided and found that older adolescent mothers had both higher levels of self-esteem at the time of the child's birth and significantly more favourable home environments.

When comparing infant care competence of younger and older adolescent mothers, older adolescent mothers, aged seventeen to nineteen, had significantly higher levels of perceived parenting competence and significantly better home environment scores compared with younger (15-17 years of age) adolescent mothers (Secco et al., 2002). Previous research isolated the role of childbearing age from family income, maternal education, family type, maternal race/ethnicity, and child sex and age and found that adolescent mothers were significantly less supportive, more detached and intrusive compared with the older non-adolescent mothers (Berlin et al., 2002). This is consistent with previous findings of the effect of age on parenting competence (Luster & Dubow, 1990). Other studies have indicated that it is not the young mother's age that results in poor outcomes for mother and child but the socially toxic conditions associated with poverty that endangers mothering and childhood (SmithBattle & Leonard, 1998).

Studies have found that age and maternal self-esteem were predictive of the home environment but that the direct effect of age on the home environment was modest in comparison with other factors. In many studies, the effect of childbearing age is confounded with other factors such as race/ethnicity, family and neighbourhood income levels, parental education and marital and residential status making it difficult to identify the unique role of teenage childbearing per se in parenting behaviour (Berlin et al., 2002). Overall, the literature on the parenting competence of adolescent mothers is unclear and fails to provide conclusive statements on the role of any one variable as a determinant of parenting competence. However, it is noteworthy that no researchers have found teenage mothers more sensitive or supportive in comparison to older mothers.

Methodological differences among research studies have also made it difficult to make conclusive statements on the role of age. For example, researchers have used different approaches to define and examine the role of age for adolescent parenting. Some researchers have neither controlled for age nor treated age as a continuous variable. The definition of 'teenage' also varies, some researchers have identified adolescent mothers as 17 years of age or younger and others used 20 years of age or younger in their research. Many studies have confounded childbearing age, with family and neighbourhood income levels, parental education, and marital status. These methodological variances in previous research make it difficult to determine the role of age on parenting competence. Few researchers have focused on the relationship between age and social support in adolescent mothers and the potential affect of age on parenting competence.

Self-Esteem

Self-esteem has been found to be a consistent, salient predictor of parenting competence (Diehl, 1997; Mercer, 1981; Mercer et al., 1995; Walker et al., 1986b) in primiparas or first time mothers. For the purpose of this study, self-esteem was defined as a personal psychological resource that indicated an adolescent mother's perception of herself. For primiparous women, forming a new relationship with the child and gaining self confidence in parenting competence appear interdependent (Walker, Crain, & Thompson, 1986a). The adolescents identified a desire to provide their children with the ideal mother and found the maternal role healing and beneficial for developing inner strength (Lesser et al., 1998). Adolescents may view motherhood as a way out of an

otherwise hopeless path (Arenson, 1994; Lesser et al., 1999a) and see it as a positive force that assisted them to alter their life course toward a more hopeful and productive one. Pregnancy and subsequently parenting is also sometimes seen as a positive effect that provides them with a child who will love them and fill the empty space in their lives.

Impoverished youth who are failing school may see parenting as representing the means for achieving respect and hope that has been absent in their lives (Lesser et al., 1999a). In these cases, pregnancy is a choice that is made by an adolescent who may not understand the future implications of pregnancy and parenting at an early age. Some research indicated that maternal characteristics are of greater importance than infant or environmental variables (Mercer et al., 1995), which is consistent with Belsky's (1984) theory that parents personal and psychological resources were more important determinants of parenting competence than environmental or infant characteristics. For adolescents with few opportunities and resources, parenting provides the route to adulthood and may lead to positive feelings about themselves and their identity (SmithBattle et al., 1998). Parenting in these instances indicated a new opportunity for the adolescent to look to the future with hope.

Researchers have made consistent statements about the relationship between self-esteem and parenting. Links have also been reported between self-esteem, social support and good parenting (Herrmann et al., 1998) and adolescents level of self-esteem has been positively correlated with a more favourable home environment (Luster et al., 1990). However, at least one researcher reported that self-esteem was not found to directly affect parenting attitudes (Lutenbacher & Hall, 1998). Lutenbacher and Hall (1998) found that

everyday stressors directly affected self-esteem, as everyday stressors increased, self-esteem decreased.

Ethnicity

The link between cultural or ethnic behaviours and parenting behaviour has not been fully examined either independently or in combination with other variables (Middlemiss, 2003). The evidence of ethnic differences on maternal characteristics such as attitudes, practices, and child health outcomes is expanding (Boyce et al., 1991; Hannan et al., 1991). In a study that compared the self-reported stress levels, support and perceived parenting of African-American mothers and European American mothers it was found that both groups reported similar patterns of perceived parenting and parenting behaviour (Middlemiss, 2003). However, other studies examining the associations between perceived and performed parenting in adolescent mothers have found that the mother's perceived parenting did not necessarily correspond with her performed parenting behaviours (Secco et al., 2002). These researchers did not include an ethnic variable but made recommendations for future research to include the role of race and culture on mothering practices. In a subsequent analysis with the same sample of adolescent mothers, Secco and Moffatt (2003b) reported that socioeconomic status explained a significant amount of variance in the adolescent mothers home environment quality compared to ethnicity (Secco & Moffatt, 2003b). In other words, socioeconomic status, rather than ethnicity, was a significant explanatory variable for the quality of parenting among the adolescent mothers.

Researchers have examined factors that distinguish between adolescent mothers who provide relatively supportive home environments and peers who provide less supportive care in three ethnic groups (Luster & Dubow, 1990). Variables significantly associated with positive adolescent parenthood were different for mothers in different ethnic groups. The characteristics of the mother, and the family of origin, current SES level, and the composition of the mother's household variables were significantly related to the quality of the home environment for each group. The HOME scores for Caucasian and Hispanic mothers were predicted by the grandmother's education and self-esteem, and more favourable home environments for African American mothers were predicted by higher levels of education and the absence of the maternal grandmother in the home (Luster & Dubow, 1990). This study also found that although black mothers had more education they were more likely to live in poverty and least likely to have a male partner. White mothers were only half as likely to be living in poverty and were twice as likely to have a male partner. However, during analysis it appeared that not all factors were equally important for each group (Luster & Dubow, 1990).

Sadler, Anderson, and Sabatelli (2001) completed a correlational study on the influence of grandmothers on parental competence among urban African American adolescent mothers and found that self-esteem and mastery explained a significant portion of the variance in adolescent mothers' parental competence. However, adolescent mothers' perceived social supports and environmental stressors were not correlated with their parental competence scores (Sadler et al., 2001). This finding suggests that there is a possible buffering or filtering system, that shields these young mothers from the large

number of negative events in their lives. The generalizability of this study is limited due to the small sample size. The sample may also be biased as it focused on African American adolescent mothers who were enrolled in a school based parent support program. The adolescent mothers' enrollment in a support program may have contributed to their positive self-esteem and sense of parenting competence. The existing research highlights the importance of focusing on the ethnicity of mothers as the experience of adolescent parenthood may be different for mothers from different ethnic groups (Luster & Dubow, 1990). The review of the literature does not clearly indicate whether ethnicity has a significant role in adolescent mothers' parenting competence.

Ethnicity of adolescent mothers is included in this study as First Nations and Métis adolescent mothers may have had previous experiences with health care that affected their perception of health care services and potentially affected their HOME scores. A qualitative study found that First Nation women experienced both invalidating and affirming encounters with health care (Browne & Fiske, 2001). The authors interpreted the affirming encounters experienced by the participants as exceptions to the ubiquitous forms of racism and discrimination that continue to disadvantage and marginalize First Nations women (Browne & Fiske, 2001). Aboriginal women experienced racism and discrimination frequently and were profoundly aware of the influence on the health care they receive (Browne & Fiske, 2001). The affect of predominantly middle class values of health care and professional socialization was seen as contributing to the tendency of Western nurses and doctors to bracket out the socio-political context of health care encounters with Aboriginal patients. This orientation of health care providers precluded a

critical examination of the institutional and colonial relationships in health care and ignores that medical institutions are powerful symbols of a recent colonial past (O'Neil, 1989). The context of a colonial relationship indicated a power imbalance that contributed to the women's concerns about their health care that would not be equalized without changes in the socio-political environment (Browne & Fiske, 2001).

Adolescent mothers may or may not have personally experienced discrimination that affected their health care services. However, they may be aware of family, friends, or community members who have had negative experiences with health services. This awareness could have an effect on adolescents' perception of health care and could colour their viewpoints.

Child Characteristic

The child characteristic used in this study is child temperament as defined by the mother's perception of child difficulty or fussiness. Infants may possess many different temperament types with varying degrees of difficulty or fussiness. The relationship between the child characteristic of perceived difficulty or fussiness and parenting competence is complex. Temperament has many facets. Temperament refers to several dimensions of behaviour, which are characterized in terms of individual differences. Temperament characteristics appear during infancy, are relatively stable over time and the expression of temperamental characteristics can be constrained by contextual factors such as parenting practices (Bates, 1980; Goldsmith & Rieser-Danner, 1986). Temperament refers to a continuum of behaviour that ranges from difficult to easy. Bates (1992) determines difficult or fussy temperament by the mothers' perception of how

difficult it is to calm or soothe the child, consistency of sleeping and eating routines, determining what is bothering the infant, amount of fussing or crying, how easily the child is upset and how vigorously the infant cries when it is upset.

According to Johnston (1996), parents' perceptions of child behaviour are highly influenced by their expectancies of child behaviour, which are general and stable beliefs about how their child will behave. In one study, adolescent mothers with limited knowledge about childhood development exhibited a low tolerance for normal behaviour (Herrmann et al 1998), perceived their parenting roles as more stressful, and their children more difficult (O'Callaghan et al., 1999) compared with older mothers. In some studies, researchers found that adolescent mothers overestimated their child's motor and linguistic abilities (Furstenberg et al., 1987) while other studies indicate that pregnant and parenting adolescents held more realistic expectations of developmental milestones compared with nonpregnant adolescents (Stern & Alvarez, 1992). The adolescent mothers' perception of their child (ren)'s difficulty is affected by their knowledge of child behaviour, motor and linguistic abilities and developmental milestones. Adolescent mothers who lack knowledge of developmental norms may misinterpret child behaviour and perceive the behaviour to be difficult. Secco and Moffatt (2003) found that difficult infant temperament is a significant determinant of parenting stress. Difficult infant temperament and the resulting increase in stress may increase the adolescent mothers' emotional discomfort and challenge their parenting competence. Parenting stress, a lack of knowledge and maturity may contribute to inappropriate discipline strategies and

inadequate mothering with adolescent mothers (Moffitt, 2002; Spivak & Weitzman, 1987).

Previous researchers have reported conflicting results regarding the correlation between child temperament and parenting competence. A study that controlled for maternal and contextual factors found that infants who were temperamentally difficult tended to receive less supportive care from their mothers compared with children with easier temperament (Hannan et al., 1991). Other researchers have not found a significant correlation between parenting and either perceived child temperament (O'Callaghan et al., 1999) or child fussiness (Hess et al., 2002). Adolescent mothers did not appear to modify their parenting based on their child's temperamental characteristics. However, Hess et al. (2002) reported that infant temperament was an important predictor of adolescent parenting satisfaction within the context of a confrontational mother-grandmother relationship. Adolescent mothers who have a confrontational relationship with their mothers may experience limited support in their parenting role and therefore may be particularly dependent on their infants' temperaments as a marker of their parenting satisfaction (Hess et al., 2002). In contrast, adolescent mothers who have a less confrontational relationship with their mothers may experience more support in their parenting role and their parenting satisfaction may be less dependent on their infants' temperament (Hess et al., 2002). A similar finding was found in a previous study where infant difficulty did not correlate with maternal parenting competence but was significantly associated with maternal self-efficacy which was related to maternal competence (Teti & Gelfand, 1991).

Teti and Gelfand (1991) stated that maternal self-efficacy appeared to be a crucial mediator of relations between perceptions of infant temperament and maternal behaviour where a mother with a strong sense of self-efficacy would use whatever personal and social resources available to them to establish positive relationships with their child (ren) and a mother with self-doubt may withdraw from the challenges of a difficult baby. Child temperament has been suggested to be a determinant of parenting stress through indirect routes such as quality of mother-infant relationship and infant response to maternal care (Secco & Moffatt, 2003). This suggests that a mothers' perception of child difficulty may have a relationship with the amount of positive social support that she receives. Also, difficult infant temperament has been found to have a significant influence on maternal parenting stress and depression (Secco & Moffatt, 2003).

The child's temperament as an infant may also influence a mother's parenting practices. The characteristics of the child may cause the mother to behave in certain ways as the mother's behaviour towards the child may encourage or discourage particular characteristics of the child (Golombok, 2000). Parenting practices such as socializing and controlling a child's behaviour can be disrupted by the child's conduct and characteristics of coercion (Ambert, 2001). Families with disruptive children are marked by conflict between mother and child (Ambert, 2001). The continuing conflict between the mother and child desensitizes the mother to the child's misbehaviour, which the mother begins to accept it as normal. Mothers of difficult children become used to the situation and are often less able than mothers of nonproblematic children to distinguish misbehaviour from regular behaviour and therefore are no longer able to regulate misbehaviour (Ambert,

2001). This can be problematic for single mothers as they are generally solely responsible of the parenting. Single mothers can be seen as easy victims of children's lack of compliance and misbehaviour as they are isolated and unable to share the parenting and the children's aversive temperament may be stronger than their temperament, thus taxing the mother's parenting skills and willpower when attempting to manage their child's behaviour (Ambert, 2001). The complexity of the relationship between child characteristics and parenting competence has many facets. This study will incorporate the child characteristic as a potential influencing factor on parenting competence.

Situational Characteristics

The situational characteristics considered in this study were socio-economic status and enacted social support. Socioeconomic status was measured using the proxy measure of the grandmother's level of completed education.

Socio-Economic Status

Poverty, social inequality, poor education and lack of vocational resources are a few of the socioeconomic restraints commonly faced by adolescent mothers (Herrmann et al., 1998; Lesser et al., 1999a). Poverty affects an adolescent mother's ability to obtain adequate nutrition for herself and her child (ren), safe affordable housing, childcare, and transportation. The strongest single predictor of how well the mother will cope with early childbearing and the quality of the home environment for adolescent mothers is poverty (Furstenberg et al., 1987; Luster et al., 1990). Luster and Dubow (1990) found significant but modest correlations between grandparents' education and the quality of the home environment provided by mothers to their children.

The educational level of the grandparents impacts the adolescent mother's ability to successfully complete basic education and secure gainful employment. A longitudinal study of urban black women in the 1960's, found that women were more likely to succeed if their parents had greater economic security and education. Differences in educational motivation and performance were especially important factors (Furstenberg et al., 1987). A longitudinal study of Métis, First Nations and Caucasian adolescent mothers found that grandmother's education level, used as a proxy for socioeconomic status, explained a greater amount of variance in the adolescent mother's home environment quality or parenting competence than ethnicity (Secco et al., 2003b). Knowing more about the relationship between socioeconomic status, enacted social support and adolescent mother's ability to parent competently will inform nurses about appropriate assessment and intervention programs for adolescent mothers. Research that has not controlled for socioeconomic status has often reported poorer outcomes for the adolescent. When these socioeconomic status differences were controlled adolescent mothers reported more child-care assistance than older mothers (Wasserman, Brunelli, & Rauh, 1990). It is therefore important to consider and control the significance of socioeconomic status in any study that examines the parenting competence of adolescent mothers.

Enacted Social Support

In many research studies, social support has been referred to as both professional and natural social support. Professional social support provided by professionals who were paid to provide social support upon an agreement with the recipient. Natural social

support refers to social support that stems from family, friends, and the adolescent mother's community. The type of relationship between the recipient and support provider has not always been delineated (Hupcey & Morse, 1997). Social support was defined by Gottlieb (1983) as consisting of an expression of reliable alliance with the respondents and a genuine concern for their well-being. Social support has been identified as a potential factor in the adjustment of adolescent women to parenthood, in their behaviour and relationships with their children and in the children's development and knowledge of themselves and the world (Herrmann et al., 1998; Secco et al., 1994).

The concept of social support as an influencing factor on parenting competence has been substantiated by research (Barrera, 1981; Herrmann et al., 1998; Roye & Balk, 1996; Secco et al., 1994). However, the type, frequency and sources of support have varied across studies (Colletta & Gregg, 1981; Dormire et al., 1989; Unger & Wandersman, 1985). Clemmens (2001) conducted a meta-analysis to summarize the results of independent quantitative studies reviewing the relationship between social support and adolescent mothers' interactions with their infants. The meta-analysis revealed that a positive medium relationship existed between maternal responsiveness and social support in adolescent mothers. Secco and Moffatt (1994) found that it was difficult to make inferences about the strength of relationship between social support and maternal interactions because of cross sectional research designs and variation in the social support instruments. The type of social support has not received as much attention in previous studies and requires further investigation to determine if the type of enacted social support is related to parenting competence.

While research has indicated the importance of social support for adolescent mothers, further research is needed to assess both the direct and indirect effects of social support on parenting (Schellenbach et al., 1992). A high quality support system has been described as having a buffering effect that helps overcome the effects of vulnerability and adolescent dysfunction (Gottlieb, 1983; Schellenbach et al., 1992). Herrmann et al. (1998) completed a descriptive study to determine whether self-esteem, parenting competence and social support for Caucasian, Hispanic, and Black teenage mothers changed over the first 18 months of parenting when case managed by a public health nurse. They found that the mean scores of self-esteem and social support measures decreased between birth and the 6-month data collection point with the greatest drop occurring among Caucasian adolescents. Interestingly, the Caucasian adolescent mothers also had the greatest drop in parenting competence scores while both the Hispanic and Black adolescent mothers' parenting competence scores increased. The Caucasian adolescents' decrease in parenting competence scores was seen to be either a result of lower self-esteem scores or social isolation (Herrmann, et al. 1998). This suggests that social support may be a determinant of parenting competence for adolescent mothers which is consistent with Belsky's theory (Belsky, 1984).

The adolescent mother's age and living arrangements played a role in defining the type of amount of social support the adolescent received. Women living with their mothers reported significantly more tangible support and somewhat more guidance than individuals living in other arrangements (Wasserman et al., 1990). Exploring the enacted social support subscales of guidance, tangible assistance and emotionality may provide

further insight in the complex relationship between social support and parenting competence. Qualitative studies have found that mothers require a stable social world with adequate resources and responsible relationships that support care giving (Lesser et al., 1998; SmithBattle et al., 1998). Delving further into the subscales of enacted social support may provide additional information into what specific aspects of social support are assistive to adolescent mothers.

Social support can be seen as beneficial and/or stressful depending on the context and type of support. Enacted social support has been defined as actions that others perform when they render assistance to a focal person (Barrera, 1986). The assistance may be tangible such as money or assistance with childcare, emotional, such as emphasizing, or through guidance by providing advice and information to the adolescent mother. Measures of enacted social support complement other measures of social support by a more thorough assessment of the social support. The assessment includes what individuals do when they provide support and distinguish enacted support from available support. It moves beyond the quantification of social ties and provides information regarding the content of the linkages (Barrera, 1986). Measures of enacted social support determine the frequency of receiving assistance in the past month in relation to guidance, emotional and tangible support and distinguish between active coping strategies that involve the solicitation of aid and enacted support that is passively obtained (Barrera, 1986). A study found no significant enacted social support differences between older and younger adolescents (Secco et al., 2003a). However, the researchers used only the global enacted social support scores and not the specific subscales. This indicates a need to

examine the intricacies of enacted social support and look specifically at the subscales of guidance, tangible support, emotional support to determine if a correlation exists between the subscales of social support and parenting competence. The role of support on parenting ability is significant as adolescent mothers who experienced rejection during childhood and low social support were more likely to exhibit a pattern of angry and punitive parenting (Crockenberg, 1987).

Age and living arrangements of adolescent mothers have also been associated with social support factors. For example, one study that compared older and adolescent mothers reported that living arrangements had an impact on social support and parenting regardless of age. In this study, women living with their own mothers reported significantly more tangible support and somewhat more guidance than did individuals living in other family configurations (Wasserman et al., 1990). Mothers of pregnant adolescents are often the most significant source of support. The maternal grandmother often has a more active role in providing child care support for adolescent mothers than for adult mothers (Garcia-Coll et al., 1987). Adolescent mothers perceive positive support from their mothers as having an important impact on their parenting and their experiences with depression (Lesser et al., 1998). Examining the type and amount of this perceived support through the guidance subscale of social support may be beneficial in determining the relationship with parenting competence. An exploratory study reviewing the relationship of enacted social support on the quality of interaction between adolescent mothers and their infants found that social support was related to the adolescent mother's sense of competence and acceptance of her infant (Dormire et al., 1989). The literature

indicates that the adolescent's family of origin, whether positive or negative, has an affect on her parenting competence.

The type of support received by adolescent mothers is a significant factor in their decision making process and may indicate that adolescent mothers allow others to influence their decisions due to immature decision making abilities. An important aspect of the adolescent mother's own psychosocial development that may be affected by early parenting is social interaction among friends and peers (Lesser et al., 1998). Parenting during adolescence interrupts this aspect of development. Some researchers have related poor parenting characteristics of adolescent mothers that may be attributed to age and immaturity. One research group reported that adolescent mothers displayed inappropriate expectations of their children, lacked empathy, and valued corporal punishment (Lutenbacher et al., 1998). While these traits are consistent with the adolescent developmental stage, they are likely to affect the adolescent's ability to provide a quality home environment for their child. The extent to which psychosocial and situational variables explain the quality of the home environment in Caucasian, First Nation, and Métis adolescents has been examined. The findings in this study indicated that the quality of the home environment was significantly higher for the Caucasian adolescent mothers in comparison to the other two groups (Secco et al., 2003b). Maternal grandmother education level and emotionality (measured as frustration with crying or feeling unable to satisfy the infant) significantly and strongly explained the quality of the home environment.

Parenting

Parenting is a complex, intricate, and interrelated set of behaviours. Parents may excel in some parenting tasks and do poorly or fail in others. Adolescent mothers provide less optimal home environments than non-adolescent mothers (Garcia-Coll et al., 1987). This difference has been attributed to maternal behaviours rather than the physical properties or poverty in the environment. The major differences were found in verbal and emotional responsiveness and maternal involvement with their children (Garcia-Coll et al., 1987). A child's exposure to less verbal and didactic interactions and lower maternal responsiveness and involvement have been related to lower intellectual status during early childhood and may be among the contributing factors in cognitive deficits observed among children born to adolescent mothers (Garcia-Coll et al., 1987) which also has an impact on the child's success in a formal educational environment (Luster, Bates, Vandenberg, & Angela Nievar, 2004). The contextual and personality factors that support one aspect of parenting may not have the same effect upon another aspect of parenting (Whiteside-Mansell, Pope, & Bradley, 1996). The skills and knowledge required to parent competently, including provision of basic care, affection, discipline, and emotional support are affected by the mother's personality and the situational characteristics. A parent may be competent in one aspect of parenting but not in another.

Adolescent mothers have been found to experience higher levels of parenting stress, to be less responsive and sensitive in interactions with their children and to provide a lower quality of stimulation at home than adult mothers (Lesser et al., 1998). Parents lacking education or experience, such as adolescent mothers, generally are at risk for less than

optimal parent-infant interactions such as low display of affection, lower levels of attentiveness or a tendency to over stimulate the child (Censullo, 1994). Adolescent mothers have also been found to be less supportive, more detached, more intrusive, and more negative/hostile with their infants than older child bearers (Berlin et al., 2002). One study on the stressors affecting parenting competence of adolescent mothers reported that adolescent mothers who experienced rejection during childhood and low social support were more likely to exhibit a pattern of angry and punitive parenting (Crockenberg, 1987). Research generally describes the adolescent parenting style as immature, inconsistent, and uninformed. Adolescent mothers lack knowledge of childhood milestones and developmental tasks (Furstenberg et al., 1987). The lack of knowledge combined with high stress levels has been found to be predictive of inadequate mothering with adolescent mothers (Spivak et al., 1987). Belsky's (1984) Determinants of Parenting Model indicates that the adolescent mothers' childhood, family of origin, and personality contribute to their ability to parent their child(ren).

Rejection during their own childhood may relate to the self-esteem of adolescent mothers. Maternal characteristics of age at first birth, educational levels, self-esteem, intelligence, contextual factors of family income, presence of a spouse or partner, number of children, and child temperament have all been found to correlate with quality of the home environment (Hannan et al., 1991). These findings are consistent with Belsky's Determinants of Parenting Model.

The types of relationships in which adolescent mothers are involved are also important. Adolescent mothers who had access to educational opportunities, day care,

and family support experience a smoother transition to achieving parenting competence. In contrast, those adolescents who were involved in conflicted, coercive relationships or who were surrounded by poverty found parenting burdensome and precarious (SmithBattle et al., 1998). Low levels of social support may indicate that parenting competence is linked to social support in that it is a learned competence or that the adolescent mothers did not have positive role models to learn from. Competence or more optimal parenting has been associated with the support from the family, friends, and father of the baby during the early years of parenting for teen mothers (Percy et al., 2001). This could indicate that the support received by adolescent mothers assisted them during the transitional period that promoted their parenting competence.

Adolescent mothers require a stable social support system with adequate resources and responsive relationships that support care giving and family life (SmithBattle et al., 1998). The literature reviewed indicated that low parenting competence of adolescent mothers may create a situation that encompasses many risks to both the child and the mother. Social support has been linked with performed parenting competence and the ability of the adolescent to provide a quality home environment. The specific type of social support that is important and assistive for adolescent mothers has been less clearly defined by research. For this reason the proposed study will focus on specific subscales of enacted social support, the relationship with maternal situational characteristics of adolescent mothers and the outcome of performed parenting competence.

Summary of Review

For adolescent mothers, a multitude of factors affect their ability to provide a quality home environment for their child (ren). The maternal characteristics of age, and self-esteem are interrelated. Parenting interrupts the adolescent's ability to achieve their developmental tasks and this may compromise their self-esteem. Adolescent mothers also face the challenge of completion of basic education. Lack of basic education decreases their ability to obtain gainful employment and can affect their ability to secure a safe home and adequate nutrition. Age and lack of education can also contribute to the adolescent mothers' ability to recognize normal developmental behaviours and milestones of their children. The characteristics of the child also play a role in the parenting ability of the adolescent mother. A child who is viewed as easy may receive more positive parenting than one who is seen as disruptive and difficult.

There are few studies of the relationship between ethnicity and an adolescent's parenting ability. Ethnicity should be further explored to determine if the social support needs are different for adolescents of difference ethnic groups. The situational variables of socioeconomic status and social support also contribute to parenting competence. Research indicates that social support contributes to an adolescent mother's parenting competence but few researchers have examined the relationships between specific types of enacted social support and parenting competence.

Chapter III:

METHODOLOGY

This chapter discusses the method and research design utilized in this study. The chapter contains information on the research design, sample, a description of instrumentation used in the study, a discussion of the limitations of the study and a discussion of the ethical consideration of the subjects.

Research Design

The study design is a correlational study. A correlational design was chosen to help reveal the relationships between age, self-esteem, ethnicity, socioeconomic status, child characteristic of fussiness, social support, and parenting competence in adolescent mothers. A correlational design proposes possible connections among these concepts (Brink & Wood, 1989). The purpose of a correlational study is to describe the relationship among the variables, rather than to test a theoretical model, but the results may provide support for a particular theoretical perspective (Brink et al., 1989). The variables in this study are a part of Belsky's (1984) Process Model of the Determinants of Parenting. The study does not propose to manipulate variables but rather to scrutinize the relationships between the variables and determine whether relationships between variables exist. Previous studies have identified relationships between social support and parenting competence (Lesser et al., 1998; Lesser et al., 1999b; Roye et al., 1996); age and parenting competence (Berlin et al., 2002; Campbell and Heinrich Research Associates., 1993; Flanagan, McGrath, Meyer, & Garcia Coll, 1995; Hanna, 2001); social support and self-esteem (Herrmann et al., 1998; Schellenbach et al., 1992); and self-

esteem and parenting competence (Crockenberg, 1987; Herrmann et al., 1998; Secco et al., 2002; SmithBattle et al., 1998). This study used age, self-esteem, and ethnicity as the measures of personality or maternal characteristics in Belsky's (1984) determinants of parenting model.

A correlational design will describe the strength and direction of the relationships between the variables. The study employed multiple regression techniques to control the variables of age, self-esteem, ethnicity, and socioeconomic status, to remove their confounding influences, and to determine the unique relationship between enacted social support and adolescent mothers' parenting competence.

Sample

The statistical analysis was conducted using secondary data collected from a larger longitudinal, comparative study of Caucasian and First Nations/Métis adolescent mothers (Secco et al., 2003b). The original study was supported financially by the Manitoba Health Research Council, Manitoba Health Organization, Baxter Corporation, Health Canada (N.H.R.D.P.), and the Children's Hospital Research Foundation. The original study data were obtained over a two-year period; participants were recruited during their third trimester of pregnancy from the adolescent ambulatory care clinics of two major teaching hospitals in Manitoba.

The adolescents completed demographic information and a number of instruments from the prenatal period until the infant was 12 – 18 months old which included Rosenberg's (1965b) Self-Esteem Scale, Social Support from Family and Friends, Barrera's (1981) Inventory of Socially Supportive Behaviours (ISSB), Infant Care

Competence (Bates, Freeland, & Lounsbury, 1979) questionnaire and the Home Observation for Measurement of the Environment (HOME) scale (Caldwell et al., 1984). Social support scales were completed during the fourth postnatal week. A nurse researcher assessed the HOME environment when the infant was 12 to 18 months of age (Secco et al., 2003b).

This study focused on the following variables: age, ethnicity, socioeconomic status, self-esteem, social support, child characteristic of fussiness, and parenting competence. The variable information was collected from the Demographic information, Rosenberg's Self-Esteem (1965b) Scale, Barrera's (1981) Inventory of Socially Supportive Behaviours, Bates (1979) Infant Characteristics Questionnaire and Caldwell and Bradley's (1984) HOME environment scores.

The sample for this study consisted of 77 adolescent mothers, who self-reported Caucasian, Métis, and First Nations ethnicity. The age of the participants included 14 to 19 year olds. The mean age of the adolescents was 16.79 years.

Data Collection Methods

The study incorporated 5 measurement instruments, which included the Demographic information (Appendix B), the Inventory of Socially Supportive Behaviours (Barrera, 1981), Rosenberg's Self Esteem Scale (Rosenberg, 1965a), Infant Characteristics Questionnaire (Bates et al., 1979) and the HOME Scale (Caldwell & Bradley, 1984) to measure the variables of the study.

Instrumentation

Rosenberg's Self Esteem Scale

The Rosenberg Self-Esteem Scale (1965) (RSE) (Appendix C) is a ten item, 4 point Likert scale instrument that was developed to measure self-acceptance among late adolescents (Herrmann et al., 1998). Items are rated from strongly agree to strongly disagree with a possible score range of 10 – 40. Higher scores reflect greater self-esteem. The Rosenberg Self-Esteem Scale has been used in studies looking at the role of self-esteem as a mediator variable (Hall, Kotch, Browne, & Rayens, 1996) and as a predictor of perceived maternal competence (Mercer et al., 1995) with a Cronbach alpha coefficient of .84. Cronbach alpha coefficients for this scale ranged from .84 to .90 with experienced and inexperienced mothers (Mercer et al., 1995) and high and low risk mothers (Mercer & Ferketich, 1994).

Infant Characteristics Questionnaire

Child temperament was measured using the Infant Characteristics Questionnaire (ICQ) for babies and children aged 13 months (Bates, 1992) (Appendix D) using the subscale of fussiness. The ICQ measures the domains of fussy/difficulty/demanding, unadaptable, persistent, and unsociable. The ICQ is a 32 item, 7 point Likert scale instrument that was developed to assess the construct of difficult temperament. The instrument measures parent perceptions of the infant, not necessarily the infant's behaviour (Bates et al., 1979; O'Neil, 1989). The Infant Characteristics Questionnaire has been used previously in a study examining the relationship between situational, maternal infant care competence and infant temperament (Secco et al., 2003a) and in a study examining how strained

mothers perceived support from Swedish child health clinic nurses (Arborelius & Bremberg, 2003). Validity and reliability evidence for the instrument include adequate factor structure, internal consistency, and test-retest reliabilities (Bates et al., 1979). The subscale of 'Fussiness' was used as the measurement of the child characteristic. Items in the scale are rated from very easy to difficult with a possible score range from 9 to 63. Higher scores reflect the parent's perception that the child is more difficult. The norms, as tested by Bates (1979) for the 'Fussy-Difficult-Demanding' subscale was 28.64 with a standard deviation of 7.43.

Two situational characteristics are included in the analysis, socioeconomic status, and enacted social support. Socioeconomic status was determined through a proxy measure of the educational levels of grandmothers. This proxy measure was utilized as many adolescent mothers have not completed their basic education and have not obtained employment. Some adolescent mothers or their families were on social assistance, which limited variance in family income. This approach has been used in other studies (Hannan et al., 1991; Luster et al., 1990; Secco et al., 2003b). Adolescent mothers were asked to rate their mother's educational level on a scale from 1 = 'grade 1 to 8', 2 = 'grade 9 to 12', 3 = 'some vocational or college', 4 = 'college graduate', 5 = 'completed graduate studies'.

Inventory of Socially Supportive Behaviours

Enacted social support was measured using Barrera's (1981) Inventory of Socially Supportive Behaviours (ISSB) (Appendix E). ISSB is a 40 item, 5 point Likert self-report measure that assesses the frequency of various forms of assistance such as enacted

support or support mobilization measures that the participants have received in the past four weeks (Herrmann et al., 1998). The scale was developed through content analysis of interviews with pregnant adolescents (Gottlieb, 1978) and has been used in studies with pregnant adolescents (Barrera, 1981). The inventory assesses the frequency of specific helping behaviours that are rated on a scale ranging from “not at all,”= 1, to “almost every day”=5. Cronbach alpha coefficient has ranged from .75 to .84 in high risk women and from .80 to .86 in low risk women (Mercer et al., 1994). The test-retest reliability has been reported at $r = .88$ (Secco et al., 1994).

Three different types of enacted social support are measured by the ISSB. The subscales have been confirmed by factor analysis to yield three constructs, namely guidance, emotional support, and tangible assistance (McCormick, Siegert, & Walkey, 1987; Pretorius & Diedricks, 1993). The Guidance subscale has 12 items, and assesses cognitive guidance such as “gave you feedback on how you were doing without saying it was good or bad.” The Emotional support subscale has 13 items, and assesses feelings of closeness, encouragement such as “expressed interest or concern in your wellbeing. The tangible assistance subscale has 6 items in the subscale and assesses the provision of material goods or tangible assistance, such as “gave you over \$25” (Stokes & Wilson, 1984). The subscales have reported Cronbach alpha coefficients of .80 to .93 with test-retest reliabilities of .70 to .82 (McCormick et al., 1987).

Home Observation for Measurement of the Environment

The dependent variable of parenting competence will be measured using the Home Observation for Measurement of the Environment (HOME) scale (Caldwell and Bradley,

1984) (Appendix F). The HOME inventory consists of 45 items and six different subscales: *Opportunities for Variety in Daily Stimulation* (5 items), *Emotional and Verbal Responsivity of the Mother* (11 items), *Maternal Involvement with the Child* (6 items), *Provision of Appropriate Play Materials* (9 items), *Avoidance of Restriction and Punishment* (8 items) and *Organization of the Physical and Temporal Environment* (6 items). The possible range of scores for the HOME inventory total is 0 to 45. Reported internal consistency Cronbach coefficients ranged from 0.44 to 0.89 for subscales and 0.89 for the total score (Boehm, 1989). Test-retest reliabilities based on a study of 91 families indicated coefficients of 0.27 to 0.77 for the subscales and 0.62 to 0.77 for the total inventory score (Boehm, 1989).

Data Analysis

The data were analysed using the Statistical Package for the Social Sciences (SPSS, version #12). SPSS was used to compute statistics needed to answer the five study research questions, including descriptive statistics, inferential statistics, correlations, and regression analysis. The data were analysed in four phases. First, descriptive statistics were computed for the study variables. Secondly, correlations were run for all the independent and the dependent variables that are continuous and interval level data. All independent variables that were significant at an alpha level of .1 or better were reserved for further examination in the fourth phase of data analysis. The alpha of .1 was utilized to ensure that all possible significant variables were included in the regression analysis. The risk of committing a Type I error, rejecting a null hypothesis that is true, is low because the fourth phase of analysis utilized 0.05 as the significance level.

During the third phase of analysis, *t* - tests were completed for the discrete variable, Caucasian or First Nations/Métis to determine whether differences in the independent or dependent variables existed for adolescent mothers who were part of a particular ethnic group. *T* - tests were also computed to determine whether there were significant differences in the dependent and independent continuous variables by age groups, mothers who were less than 17 years of age and mothers who were 17 years of age or older.

The fourth phase included step-wise multiple regression of the variables that were significantly correlated with parenting competence. This statistical procedure determines the degree of linear association between a number of independent variables and one dependent variable (Brink et al., 1989). Multiple regression analysis provided a means of measuring the effects of several factors concurrently (Dimitrov, Fitzgerald, & Rumrill, 2000). Three separate equations were run using significant variables from the correlational testing. The first model included significant maternal characteristics. The second model utilized significant situational characteristics. The third refined model included the significant variables from the first and second models in the analysis.

Ethical Considerations of the Subjects

The larger study from which the data originated, Perceived Maternal Competence as an Indicator of Performed Mothering Behaviour, Parenting Stress, and Infant Development (Secco and Moffatt, 1995) received ethical approval through the University of Manitoba, Medical Ethics Committee in 1995 with amendments in 1996, 1999, and 2004. The study had a low level of physical and emotional risk, as it required participants

to complete questionnaires. Confidentiality was assured by only using raw data; completed participant questionnaires and research instruments were not seen. There were no perceived harmful effects of the study. However, the use of questionnaires may raise personal issues that lead to self-discovery that may be unpleasant for the participants (Brink et al., 1989). Ethical approval for the analysis of the secondary data for this study was received on December 21, 2004 from the University of Manitoba, Education/Nursing Research Ethics Board (Appendix G).

Information obtained during the study was kept in a locked file cabinet and in protected computer files. Only individuals involved in the study were allowed access to the data.

Summary and Significance

Adolescent pregnancy and subsequent parenting is a significant issue for society. In Manitoba, the number of births has increased over the past 5 years. Many adolescents decide to parent their child (ren) and this contributes to difficulties with finishing basic education and obtaining fulfilling employment. Some adolescent mothers also have more difficulty with parenting their children. Research studies are needed to explain factors that increase/enhance parenting competence. Understanding the role of enacted social support, tangible, emotional and guidance in parenting competence will help inform policy decisions and program development. Such research knowledge will assist education and programs for adolescent mothers. The information could inform initial assessment of adolescent mothers and early interventions. Improved programs,

assessments, and interventions that focus on supporting adolescent mothers and increase parenting competence will result in more positive child outcomes.

Chapter IV:

FINDINGS

The focus of this chapter is the presentation of the findings obtained from the correlational analysis. Following a description of the study participants, the chapter will present the results obtained from the instruments and the research questions. A post hoc power analysis concludes the chapter.

Sample Description

The sample consisted of 79 adolescent mothers and a demographic profile is contained in Table 4.1. The majority of the sample of adolescent mothers, over sixty percent, were either 16 or 17 years of age. The ethnic group distribution was equal as the sample was approximately half Caucasian and half First Nation/ Métis. The average age of the Caucasian mothers, 17.35 years of age, was approximately one year greater than the First Nations/Métis mothers whose mean age was 16.27. A large portion, 44.3%, of the grandmothers had completed a grade 12 education and 34.2% of the grandmothers had completed some college/vocational school, graduated college, or completed graduate studies.

TABLE 4.1 DEMOGRAPHIC PROFILE OF PARTICIPANTS

Characteristics	Total Sample (n = 79)
Mean Age	16.79 (77)
	n (%)
Age Distribution	
<i>14 years old</i>	2 (2.5%)
<i>15 years old</i>	8 (10.1%)
<i>16 years old</i>	23 (29.1%)
<i>17 years old</i>	25 (31.6%)
<i>18 years old</i>	9 (11.4%)
<i>19 years old</i>	10 (12.7%)
Ethnic Groups	
<i>Caucasian</i>	37 (46.8%)
Mean age	17.35 (37)
<i>First Nation/Métis</i>	33 (41.8 %)
Mean age	16.27 (33)
Socioeconomic Status (Grandmother's Education Level)	
<i>Completed grade 1 – 8</i>	9 (11.4%)
<i>Completed grade 9 – 12</i>	35 (44.3%)
<i>Completed some vocational or college</i>	12 (15.2%)
<i>College graduate</i>	12 (15.2%)
<i>Completed graduate studies</i>	3 (3.8%)

Description of the Influencing Variables and Parenting Competence

The extent to which variables correlated with parenting competence was the focus of the analysis. The influencing variables examined in the study included the maternal characteristics of age, self-esteem, and ethnicity; the child characteristic of fussiness; and the situational characteristics of socioeconomic status and enacted social support. The total enacted social support score as well as the enacted social support subscales of *Emotional Support*, *Guidance*, and *Tangible Support* were used to measure enacted social support. Descriptive data for the influencing variables are shown in Table 4.2. The adolescent mother's self-esteem scores ranged from 19 to 40 from a possible total score of 40. The mean self-esteem score for the adolescent mothers was 30.47. The mean

'Fussy' score indicated by the adolescent mothers was 41.73 with a range of 28 to 56 out of a possible 63. The frequency distribution for 'Fussy' is normally distributed (in a bell shaped curve). The standard deviation value for the 'Fussy' score is in keeping with the norm standard deviation found by Bates (1992).

TABLE 4.2 DESCRIPTIVE DATA FOR ALL VARIABLES

	Mean	Standard Deviation	Range	Mode
Maternal Characteristics				
Age	16.79	1.25	14 – 19	17
Self-Esteem	30.47	4.55	19 – 40	29
Child Characteristic				
Fussy	41.73	6.82	28 – 56	39
Situational Characteristics				
Enacted social support	106.07	22.997	60 – 157	90
Guidance	30.00	8.20	14 – 53	29
Emotional	39.52	10.14	17 – 60	39 ^a
Tangible	13.54	3.27	6 – 21	14
Parenting Competence				
Parenting Competence	33.11	5.08	21 – 40	38
Responsiveness	8.11	2.09	2 – 11	
Punishment	6.48	.849	5 – 8	
Environment	4.59	.787	3 – 6	
Play	6.57	1.73	1 – 9	
Involvement	3.96	1.64	1 – 6	
Variety	3.36	1.06	0 – 5	

^a Multiple modes exist. The smallest value is shown.

Relationships between Influencing Variables and Parenting Competence

Correlations were computed between all continuous independent variables, age, self-esteem, fussiness, socioeconomic status, enacted social support total, enacted social support subscale scores, guidance, emotional and tangible support and the dependent variable, parenting competence, measured with HOME total scores. Correlational

analysis measures the degree of linear association between two variables (Brink et al., 1989).

The correlation computation indicated that four of the nine variables, age, ethnic group, socioeconomic status, and the emotional subscale of enacted social support, were significantly correlated with the parenting competence score (See Table 4.3). The maternal characteristics, age, $r = .307, p = .043$, and ethnic group, $r = .391, p = .014$, were significantly related to parenting competence. Two of the five situational characteristics, socioeconomic status, $r = .456, p = .002$, and the *Emotional* subscale of enacted social support, $r = .455, p = .005$, were significantly correlated with parenting competence. Total enacted social support, $r = .290, p = .087$, and the *Guidance* subscale score, $r = .310, p = .066$, were not positively correlated with parenting competence but were reserved for further analysis with multiple regression. Self-esteem, $r = -.048, p = .757$, the child characteristic of fussiness, $r = -.163, p = .427$, and the *Tangible* subscale, $r = -.108, p = .531$, were not significantly correlated with parenting competence.

TABLE 4.3 PEARSON CORRELATIONS BETWEEN MATERNAL, CHILD AND SITUATIONAL CHARACTERISTICS AND PARENTING COMPETENCE

	Parenting competence (total score)	<i>p</i> values
Maternal Characteristics		
<i>Age</i>	.307	.043
<i>Self-Esteem</i>	-.048	.757
<i>Ethnic group</i>	.391	.014
Child Characteristic		
<i>Fussiness</i>	-.163	.427
Situational Characteristics		
<i>SES</i>	.456	.002
<i>Total Enacted Social Support</i>	.290	.087
<i>Guidance</i>	.310	.066
<i>Emotional</i>	.455	.005
<i>Tangible</i>	-.108	.531

Note. Spearman's rho used for SES

Relationships between the maternal, child, and situational characteristic variables and the parenting competence subscales, *Emotional and Verbal Responsivity of the mother*, *Avoidance of Restriction and Punishment*, *Organization of the Physical and Temporal Environment*, *Provision of Appropriate Play Materials*, *Maternal Involvement with the Child* and *Opportunities for Variety in Daily Stimulation* were tested with Pearson correlations as shown in Table 4.4. The *Maternal Involvement with Child* subscale was significantly correlated with five variables with varying degrees of association. The maternal variables of age, $r = .339, p = .025$, ethnicity, $r = .395, p = .013$, and the situational variables of socioeconomic status, $r = .441, p = .003$, total enacted social support, $r = .382, p = .021$, and the *Emotional* subscale, $r = .495, p = .002$, were significantly correlated. The *Guidance* subscale was not significantly correlated with the total parenting competence score, $r = .303, p = .073$, but was reserved for further analysis in the fourth stage of analysis.

TABLE 4.4 PEARSON CORRELATIONS BETWEEN MATERNAL, CHILD AND SITUATIONAL CHARACTERISTICS AND PARENTING COMPETENCE SUBSCALES

N = (79)	Responsiveness	Punishment	Environment	Play	Involvement	Variety
Maternal Characteristics n = 44						
(p value)						
Age	.327 (.030)	.035 (.821)	-.050 (.745)	.040 (.796)	.339 (.025)	.281 (.064)
Self-Esteem	-.148 (.338)	-.033(.834)	-.130 (.402)	.158 (.307)	-.095 (.542)	.091 (.555)
Ethnic group	.444 (.005)	.130 (.431)	-.078 (.635)	.224 (.171)	.395 (.013)	.061 (.712)
Child Characteristic n = 26						
Fussiness	.037 (.858)	-.099(.629)	-.194 (.342)	-.111 (.590)	-.277 (.170)	-.057 (.782)
Situational Characteristics n = 36						
SES	.243 (.121)	.018 (.912)	.236 (.132)	.329 (.033)	.441 (.003)	.388 (.011)
Total Enacted Social Support	-.060(.729)	.155 (.365)	-.081 (.640)	.412 (.013)	.382 (.021)	.217 (.203)
Guidance	-.025 (.886)	.276 (.103)	.006 (.970)	.483 (.003)	.303 (.073)	.104 (.546)
Emotional	.154 (.370)	.110 (.524)	-.043 (.805)	.434 (.008)	.495 (.002)	.403 (.015)
Tangible	-.217 (.203)	.061 (.726)	-.238 (.163)	-.100 (.563)	.071 (.679)	.049 (.774)

Note. Spearman's rho used for SES

The parenting competence subscale, *Provision of Play Materials* was significantly correlated with only situational variables, the *Emotional* subscale, $r = .434, p = .008$, socioeconomic status, $r = .329, p = .033$, total enacted social support, $r = .412, p = .013$, and the *Guidance* subscale $r = .483, p = .003$. The *Opportunities for Variety in Daily Stimulation* subscale was significantly correlated to the situational variables of socioeconomic support, $r = .388, p = .011$, and the *Emotional* subscale, $r = .403, p = .015$. Age was not significantly correlated to the *Opportunities for Variety in Daily Stimulation* subscale, $r = .281, p = .064$, but was reserved for further analysis with multiple regression. The analysis indicated that the *Emotional and Verbal Responsivity of the Mother* subscale is significantly correlated with the maternal characteristics of age, $r = .327, p = .030$, and ethnicity, $r = .444, p = .005$. None of the influencing variables in this study were correlated with the parenting competence subscales of *Avoidance of Restriction and Punishment* and *Organization of the Physical and Temporal Environment*. None of the parenting competence scores were significantly correlated with the maternal characteristic of self-esteem, the child characteristic of 'Fussy' and the situational characteristic of tangible social support. The *Maternal Involvement with Child* subscale was correlated with the greatest number of independent variables and had significant relationships with two maternal and three situational variables. The *Provision of Play Materials* parenting competence subscale was significantly correlated with four situational variables. These two subscales had the most significantly relationships with the influencing variables in this study.

Differences in Maternal, Child And Situational Variables by Age Group

The third phase of analysis involved the computation of *t*-tests to determine whether there were significant differences in the independent and dependent variables by age group. The age of seventeen was chosen as a cut off point as this was the mean age for the adolescent mother sample group. The only significant difference between younger and older adolescents was found in the parenting competence subscale *Opportunities for Variety in Daily Stimulation* ($t = 2.19, p = .034$). There were no significant differences by age group in total parenting competence, score ($t = 1.29, p = .203$) or the parenting competence subscale scores, *Emotional and Verbal Responsivity of the Mother* ($t = 1.71, p = .094$), *Avoidance of Restriction and Punishment* ($t = -1.08, p = .288$), *Organization of the Physical and Temporal Environment* ($t = -.155, p = .877$), *Provision of Appropriate Play Materials* ($t = 1.29, p = .203$), and *Maternal Involvement with the Child* ($t = .909, p = .369$). As indicated in Table 4.5, there were no significant age group differences found in the amount of enacted social support, specifically guidance, emotional and tangible support. The younger adolescent mothers did indicate higher mean 'Fussy' scores, mean = 44.40, compared with the older adolescents mothers, mean 40.28, $t = -1.94, p = .059$). However, this difference in Fussy mean scores was not significant.

TABLE 4.5 ANALYSIS OF VARIANCE T - TESTS OF DIFFERENCES IN MEAN MATERNAL, CHILD, SITUATIONAL, AND PARENTING CHARACTERISTICS BY YOUNGER AND OLDER ADOLESCENTS

	Younger than 17 (<i>n</i>)	17 and older (<i>n</i>)	<i>t</i>	<i>p</i> value
Maternal Characteristic				
Self-Esteem	30.70 (33)	30.14 (44)	-.531	.597
Child Characteristic				
Fussiness	44.40 (15)	40.28 (29)	-1.94	.059
Situational Characteristics				
Total enacted social support	109.42 (26)	103.57 (35)	-.983	.330
Guidance	31.23 (26)	29.09 (35)	-1.01	.316
Emotional	40.19 (26)	39.03 (35)	-.440	.661
Tangible	14.04 (26)	13.17 (35)	-.103	.310
Parenting Competence				
Parenting Competence total	32.17 (23)	34.14 (21)	1.29	.203
Responsiveness	7.61 (23)	8.67 (21)	1.71	.094
Punishment Environment	6.61 (23)	6.33 (21)	-1.08	.288
Play	4.61 (23)	4.57 (21)	-.155	.877
Involvement	6.52 (23)	6.62 (21)	.184	.855
Variety	3.74 (23)	4.19 (21)	.909	.369
	3.04 (23)	3.71 (21)	2.19	.034

Differences in Maternal, Child and Situational Variables by Ethnicity

For the discrete independent variable, 'ethnic group', independent paired *t* - tests were computed to determine whether there were significant ethnic differences in relation to the maternal, child and situational variables. These independent variables were age, self-esteem, ethnicity, fussiness, socioeconomic status, and social support. The dependent variables were the total parenting competence score and its subscales. Ethnic group was defined as First Nation/Métis or Caucasian (See Table 4.6).

The originating study (Secco et al., 2003b) has published the findings on analysis of ethnic differences with the variables of age, self-esteem, socioeconomic status, and total ISSB from this data. Therefore, this discussion will focus on the variables not yet

discussed, the child characteristic of fussiness, the situational characteristics of the enacted social support subscales, guidance, emotional and tangible support and the total parenting competence and subscales of the parenting competence, *Emotional and Verbal Responsivity of the Mother*, *Avoidance of Restriction and Punishment*, *Organization of the Physical and Temporal Environment*, *Provision of Appropriate Play Materials*, *Maternal Involvement with Child* and *Opportunities for Variety in Daily Stimulation*.

Differences in the child characteristic fussiness mean score were noted. First Nations/Métis adolescent mothers had a higher mean score but the result was not significant, $t = 1.29$, $n = 39$, $p = .205$. When examining differences for the enacted social support subscales of *Guidance*, *Emotional* and *Tangible* support, the First Nations/Métis mothers reported higher *Tangible* support scores $t = 1.58$, $n = 55$, $p = .120$ but the difference was not significant, as shown in Table 4.6. Significant differences were noted in the parenting competence subscales, *Emotional and Verbal Responsivity of the Mother*, $t = -3.02$, $n = 39$, $p = .005$, and *Maternal Involvement with the Child*, subscales, $t = -2.62$, $n = 39$, $p = .013$. There were no significant differences in the other parenting competence subscales, *Acceptance of Child's Behaviour*, *Organization of the Physical and Temporal Environment*, *Provision of Appropriate Play Materials* and *Opportunities for Variety in Daily Stimulation*.

TABLE 4.6 ANALYSIS OF VARIANCE T - TESTS OF DIFFERENCES IN MEAN MATERNAL, CHILD, SITUATIONAL, AND PARENTING CHARACTERISTICS BY ETHNICITY

	Caucasian (n)	First Nation/Métis (n)		
	mean	mean	<i>t</i>	<i>p</i> value
Maternal Characteristics				
Age	17.35 (37)	16.27 (33)	-3.94	.00
Self-Esteem	29.68 (37)	31.21 (33)	1.46	.150
Child Characteristic				
Fussiness	40.79 (24)	43.73 (15)	1.29	.205
Situational Characteristics				
Mann Whitney Socioeconomic Status			<i>U</i>	<i>p</i> value
	36.03 (35)	28.24 (29)	384	.075
Total Enacted Social Support	103.10 (31)	105.92 (24)	.455	.651
Guidance	29.39 (31)	29.54 (24)	.070	.945
Emotional	39.35 (31)	38.67 (24)	-.247	.806
Tangible	12.87 (31)	14.25 (24)	1.58	.120
Parenting Competence				
Parenting Competence	34.67 (24)	30.40 (15)	-2.58	.014
Responsiveness	8.92 (24)	7.00 (15)	-3.02	.005
Punishment Environment	6.63 (24)	6.40 (15)	-.797	.431
Play	4.54 (24)	4.67 (15)	.479	.635
Involvement	6.79 (24)	6.00 (15)	-1.395	.171
Variety	4.42 (24)	3.07 (15)	-2.619	.013
	3.33 (24)	3.20 (15)	-.373	.712

Contributions of Influencing Variables to Parenting Competence

In the fourth phase of data analysis, stepwise multiple regression procedures were utilized describe the simultaneous effects of two or more independent variables, age, self-esteem, ethnicity, socioeconomic status, and total enacted social support on the dependent variable, parenting competence.

Maternal Characteristics

Separate stepwise multiple regression model equations were run with the significant maternal and situational characteristics. In keeping with Belsky's (1984) Determinants of

Parenting Model, variables were included in the multiple regression model analyses if the bivariate correlation with the parenting competence variable achieved a p value of .1 or less in the second phase of analysis. The significance level of .1 was chosen as there was a trend towards significance and to reduce the risk of making a type II error. The first regression model included the significant maternal characteristics of age and ethnicity with total parenting competence, or HOME, as the outcome (Table 4.7). The maternal characteristics model explained 15% of the variance in parenting competence: $R^2 = .153$, $p = .014$ with an adjusted $R^2 = .130$. Within the maternal characteristics model equation, ethnicity (*beta coefficient* = 3.952, $p = .014$) was a significant explanatory variable that predicted 15.3% of the variance in parenting competence. Being of Caucasian ethnicity predicted a higher parenting competence score.

Situational Characteristics

The second stepwise multiple regression equation model included the significant situational variables socioeconomic status, total enacted social support, and the enacted social support subscales, *Emotional* support and *Guidance* (See Table 4.7). The situational characteristics model explained a significant amount, approximately 33%, of the variance in parenting competence, $R^2 = .329$, $p < .001$, with an adjusted $R^2 = .288$. The enacted social support, *Emotional* subscale contributed 18.4 % of the variance to parenting competence, *beta coefficient* = .186, $p = .017$. Socioeconomic status significantly explained 12.2% of the variance in total HOME or parenting competence, (*beta coefficient* = .122, $p = .02$). Total enacted social support and the *Guidance* subscale failed to contribute significantly to parenting competence.

TABLE 4.7 STEPWISE REGRESSION ANALYSIS FOR VARIABLES PREDICTING PARENTING COMPETENCE

	Standard Beta (<i>p</i> value)	SE	R ²
Equation 1: Maternal Characteristics (n = 39)			
Ethnicity	.391 (.014)	1.529	.153
Model R² = .153 (.014)			
Model adjusted R² = .130			
F = 6.679, <i>p</i> = .014			
Equation 2: Situational Characteristics (n = 36)			
Emotional	.371 (.017)	.074	.207
SES	.359 (.020)	.708	.122
Model R² = .329 (.001)			
Model adjusted R² = .288			
F = 8.079, <i>p</i> = .001			
Equation 3: Refined Maternal and Situational Characteristics (n = 36)			
SES	.288 (.050)	.682	.075
Emotional	.377 (.010)	.069	.207
Ethnicity	.315 (.029)	1.391	.141
Model R² = .423 (.000)			
Model adjusted R² = .369			
F = 7.827, <i>p</i> = .00			

The final stage, refined multiple regression model, all of the significant variables from the maternal and situational models were included that achieved a significance (*p*) level less than or equal to .05. These variables included the maternal variable ethnicity and the situational model variables, socioeconomic status and emotional support. The refined model explained a significant amount of variance in parenting competence: $R^2 = .423$, $p < .000$ with an adjusted $R^2 = .369$. Within the refined model, the situational characteristics, *Emotional* subscale (*beta coefficient* = .189, $p = .01$), socioeconomic status (*beta coefficient* = 1.390, $p = .05$), and maternal ethnicity (*beta coefficient* = 3.185, $p = .029$) were significant predictors of parenting competence. The *Emotional* support score of the adolescent mother had the most explanatory strength of the three variables in the third

equation, explaining 20.7% of the variance in parenting competence. The two remaining variables, ethnicity, and socioeconomic status explained 14.1% and 7.5% of the variance in parenting competence.

Post Hoc Power Analysis

Effect size was calculated using power analysis. The strength of correlation coefficients between social support, self-esteem, and parenting competence in previous studies with adolescent mothers ranged from .34 to .45 (Diehl, 1997; Sadler et al., 2001; Tarkka, 2003). Clemmens (2001) found in her meta-analysis of the relationships between social support and adolescent mothers' interactions with their infants that the combined effect size was .28 when weighted by sample size and .3 when weighted by the quality of the study. Based on previous research, Clemmens (2001), this study used an estimated population effect size, $R^2 = .20$, (γ) of .25, the conventional standard of significance criterion of $\alpha .05$ and a power of $\beta .80$. Using 6 predictors as the value of k this equals a sample size of 62 in order to achieve the power of .80 (Polit & Beck, 2004). Using a larger estimated population effect size of $R^2 = .30$, (γ) of 0.429 and 6 predictors changes the recommended sample size to 39 with a significance criterion of $\alpha .05$ and a power of $\beta .80$.

Summary

This correlational analysis found significant relationships between maternal (age, ethnic group) and situational characteristics (socioeconomic status, emotional support) and adolescent mothers' parenting competence. Child fussiness, total enacted social support, *Guidance* and *Tangible* support were not significantly correlated with parenting competence. The analysis indicated that parenting competence was significantly

correlated with age, ethnic group, socioeconomic status, total enacted social support, *Guidance*, and *Emotional* support. Multiple regression analysis revealed that ethnicity, socioeconomic status, and *Emotional* support were significant predictors of parenting competence.

Significant differences were noted between younger and older adolescents in the parenting competence *Opportunities for Variety in Daily Stimulation* subscale. No significant age group differences were found in the maternal perception of child difficulty and maternal *Emotional and Verbal Responsivity of the Mother* to her child. Significant differences were noted between the two ethnic groups in the parenting competence subscales of *Emotional and Verbal Responsivity of the Mother* to the child and *Maternal Involvement with the Child*.

The power analysis revealed that a larger sample size is required to adequately evaluate the relationships between the influencing variables and adolescent mothers' parenting competence.

Chapter V:

DISCUSSION

This chapter focuses on discussion of the prominent findings from the research to compare and differentiate the findings from previous studies completed in the area. The discussion will also address the relevance of the theoretical framework, limitations of the study, and application of findings and recommendations for future research.

Findings

This study explored correlations between maternal, child and situational variables and parenting competence in a convenience sample of First Nations/Métis and Caucasian adolescent mothers. The differences in maternal, child, and situational variables between younger and older adolescents and ethnic groups were also examined. The unique influence of variables that were significantly correlated with parenting competence was determined using multiple regression techniques. This section of the discussion concentrates on presentation of six remarkable findings from this study: relationship between maternal characteristics of age and ethnicity and parenting competence, the lack of impact of perceived child temperament on parenting competence, the positive correlation between socioeconomic support and emotional support of parenting competence, the similarity between older and younger adolescents, the differences between the two ethnic groups and the predictors of parenting competence.

Relationship between Maternal Characteristics and Parenting Competence

The first remarkable finding from this study is the relationship between maternal characteristics, age, ethnicity, self-esteem, and parenting competence. The maternal characteristics of age and ethnicity were moderately related with parenting competence.

Older Caucasian adolescent mothers had higher levels of parenting competence as measured by the HOME scale. The multiple regression analysis considered both age and ethnicity simultaneously and ethnicity, rather than age, remained the significant variable.

This finding could be explained by various rationales. Previous direct or indirect experiences of First Nation and Métis adolescent mothers with government agencies or persons in authority may have biased their HOME scores. First Nation and Métis adolescent mothers who have had negative experiences or been privy to the experiences of other adolescent mothers such as the removal of children from the home may have responded to the nurse researcher measuring the HOME score in a way they felt would best portray their parenting. Underlying stress experienced by these mothers may have caused them to focus on the nurse researcher instead of their child during the visit, this may have affected their score. Previous research has presented inconsistent findings regarding the relationship of age and ethnicity to parenting competence. One group of researchers who examined maternal behaviour categories in a sample of African-American, Caucasian and Hispanic/Native American adolescent mothers indicated that age of adolescents and ethnicity were not significantly correlated with poor parenting practice (Brophy-Herb & Sterling Honig, 1999). However, the maternal behaviour categories examined by Brophy-Herb & Sterling Honig (1999) were not identical to the subscales of the HOME instrument. Other researchers illustrated different patterns of association between childbearing age and parenting behaviours within the racial/ethnic groups of Caucasian, Blacks, and Latinas (Berlin et al., 2002). For example, Berlin (2002) found significant associations between childbearing age and parenting behaviours among Black mothers. The current study found no significant correlation between self-

esteem and parenting competence or the parenting competence subscales in this sample. This was unexpected because previous researchers have suggested that high self-esteem is an important positive influence on adolescent parenting abilities (Roye et al., 1996; Sadler et al., 2001).

Parenting competence subscales.

Age and ethnicity were positively and moderately correlated with *Maternal Involvement with the Child*, a parenting competence subscale. Mothers who were older and Caucasian provided a higher level of maternal involvement to her child. This finding is consistent with previous research that examined differences in maternal behaviours and characteristics of the home environment with adolescent and older mothers (Garcia-Coll et al., 1987). Garcia-Coll et al. (1987) compared the demographic, childcare support and life stress characteristics of Caucasian teenage mothers and adult mothers. The study also compared maternal behaviours and characteristics of the home environment. They found that adolescent mothers spent less time in caretaking activities, in positive verbal interactions and more time in positive contact with their children than nonadolescent mothers. Older mothers were more responsive, demonstrated more involvement with their infants, and had significantly higher HOME scores.

Impact of Child Characteristic on Parenting Competence

The second remarkable finding in the study was that child fussiness was not significantly correlated with total parenting competence or any of the parenting competence subscales. This finding is congruent with Belsky's (1984) Determinants of Parenting model, which suggests that maternal and situational characteristics will have a greater significance on parenting competence than child characteristics. In contrast,

Sadler et. al (2001) found that child temperament was significantly correlated with adolescent mothers' sense of parental competence and satisfaction. Although the infant difficultness was significantly correlated with parenting competence, this correlation was lost in the regression analysis (Sadler et al., 2001) suggesting more complex relationships between child temperament and parenting competence. The mother's perception of child's difficultness may require indirect model study and larger sample size to explore further potential explanatory models and relationships with parenting competence.

Impact of Situational Characteristics on Parenting Competence

The third remarkable finding in the study was the significant correlation between socioeconomic status and emotional support with total parenting competence. Adolescents with a higher socioeconomic status and more emotional support had higher parenting competence scores. This finding is consistent with previous research. A longitudinal study, that completed data collection with children who were three to four years of age and again when they were seven to eight years old, found that income was associated with the quality of cognitive stimulation children experience in their home environments, measured with the HOME short form (Votruba-Drzal, 2003). The sample in this study included mothers ages 14 to 21 of three ethnic groups, Caucasian, black and Hispanic.

Adolescents' perceived family support, which may include emotional support, was significantly associated with parenting competence in previous research (Schilmoeller, Baranowski, & Higgins, 1991). Schilmoeller et al. (1991) found that adolescent mothers who had more total social interactions at 6 months postpartum and perceived their families as more supportive at 1 month provided better social and physical environments

for their child(ren). Maternal or parenting behaviours were measured with the HOME scale at a twelve month visit. Schilmoeller et al. (1991) also noted that perceived family support was positively associated with parental satisfaction in adolescents.

Socioeconomic status, total enacted social support, guidance, and emotional support, were all positively correlated with the *Provision of Appropriate Play Materials* subscale of parenting competence. Adolescent mothers with higher socioeconomic status, social support, and guidance provided more appropriate play materials. The mothers of the adolescent participants with higher socioeconomic status were also more educated. The grandmothers with higher education may also be able to provide teaching that is more relevant, guidance, and support to the adolescent mother. The *Provision of Appropriate Play Materials* subscale includes observations such as 'parent provides toys for child during visit' and 'provides learning equipment appropriate to age such as mobile, table and chair, play.' Education and income could contribute to having toys that are more appropriate in the home. Previous research has not focused on the particular subscales of the HOME in relation to adolescent mothers.

Socioeconomic status, total enacted social support, and emotional support, were all moderately and positively correlated with the *Maternal Involvement with the Child* subscale of parenting competence. Adolescent mothers with higher socioeconomic status, total enacted social support, and emotional support scores were more involved with their child (ren). The *Maternal Involvement with the Child* subscale included observations such as 'mother talks to child while doing her work' and 'mother structures child's play period.' These adolescent mothers with greater support may have been more likely to

become more involved with their child due to experiencing greater support from their family.

The *Opportunities for Variety in Daily Stimulation* parenting competence subscale was significantly correlated with the situational characteristics of socioeconomic status and emotional support. This subscale includes 'mother read stories to child at least three times weekly' and 'family visits or receives visits from relatives approximately once a month.' Adolescents with higher socioeconomic status and emotional support provided more daily stimulation for their child (ren). It is noteworthy that socioeconomic status and emotional support were significantly correlated with higher parenting competence scores in four parenting competence subscales.

Differences in Younger and Older Adolescents

The fourth remarkable finding in the study was the lack of significant differences between the age groups in the variables of maternal self-esteem, child difficulty, or amount of total enacted social support, guidance, emotional, and tangible support. In contrast, previous research has reported higher self-esteem and significantly more favourable home environments among older adolescent mothers (Luster & Dubow, 1990). Although the younger adolescent mothers (less than 17 years) did indicate higher mean 'Fussy' scores than the older adolescents this finding was not significant. The finding suggests that younger adolescents may perceive their infant to be more difficult than older adolescents. Future research with a larger sample may provide substantiation of this difference. Older mothers presented greater *Opportunities for Variety in Daily Stimulation* such as reading stories to their child, eating at least one meal with parents, the father providing some caregiving everyday, at least monthly family visits, and the

child owning three or more books. The younger adolescents' lack of education may provide the explanation for this difference. The mother's level of literacy will be directly passed on to her child. Mothers with higher literacy levels will be able to utilize these skills and teach their children.

Differences in Ethnic Groups

The fifth significant finding in the study was the ethnicity differences for two of the parenting competence subscales, the *Emotional and Verbal Responsivity of the Mother* and *Maternal Involvement with Child*. Caucasian mothers achieved higher scores in these two parenting competence subscales than First Nations/Métis mothers. This subscale contains items such as demonstrates open affection, initiates more verbalizations, responds to the child's vocalizations, and offers spontaneous praise more frequently to the child. This finding may be explained by ethnic differences in parenting children or by a testing effect due to the small sample size for each ethnic group. The strength of the relationship may have been misrepresented.

The First Nations/Métis adolescents had higher total enacted social support and tangible subscale scores compared with Caucasian adolescents but these results were not significant. No significant Ethnicity differences were found for any type of social support. This finding is inconsistent with previous studies that reported Caucasian adolescent mothers had less social support and felt more isolated compared with the ethnic groups of black and Hispanic mothers (Herrmann et al., 1998; Lesser et al., 1998). This may be explained by cultural differences in parenting. For example, previous researchers have found ethnic and culture differences in parenting behaviours of African American and Euro American mothers (Brooks-Gunn & Markman, 2005). European

culture has traditionally taken an individualistic approach to parenting where the child is encouraged to be independent.

Aboriginal cultures have a more collectivistic approach to living and sharing, which translates, into collective caretaking of the child and adolescent mother (Ritts, 1999). Previous research on Native American values and parenting indicate that children are treated permissively in accord with the belief in the inviolability of the individual, which emphasizes that no person has a right to speak for or to direct the actions of another person and this includes children (Coll, Meyer, & Brillon, 1995). In order to shape children's behaviour adults may attempt to persuade, instil fear, embarrass, or shame children (Coll et al., 1995). Native American children master self-care skills early and participate in household responsibilities at a young age. This helps to foster their sense of self-sufficiency and confidence. In accordance with traditional Native American values, children are taught to respect elders, cooperate with others, and are discouraged from asserting themselves and from showing emotion (Atwater, 1996). Child rearing activities may be aided by extended families. If the family resides on a reservation more extended family may be available . If the family has moved off the reservation and resides in urban areas, the family may be more nuclear (Joe & Malach, 1992). Aboriginal women have described their experiences with health care as invalidating. The women felt vulnerable and felt that discriminatory judgements were levelled against Aboriginal women as mothers (Browne et al., 2001). Historically, Aboriginal families have been colonialisised through such institutions as health care, child welfare, and residential schools. This has affected the Aboriginal nuclear family and may have biased their perspective of any social interaction with Caucasians even though the individual may not have had a

personal negative experience. Since adolescent mothers may also be considered children, the community could treat them as children while the community assists in raising their child (ren). This may explain the higher enacted social support experienced by the First Nation/Métis mothers in the study. Differences in parenting style may also explain the First Nation/Métis adolescent mothers lower scores on the *Emotional and Verbal Responsivity of the Mother* and *Maternal Involvement with Child* parenting competence subscales.

Predictors of Parenting Competence

The stepwise multiple regression analysis of the relationships among maternal variables and parenting competence revealed that ethnicity explained approximately 15.3% of variance in parenting competence. The significance of age was lost in multiple regression. This was not unexpected, as the analysis of variance in the differences between younger and older adolescents indicated no significant differences in the total parenting competence score. However, previous studies have found that the adolescent's age at first birth and intellectual competence were significant predictors of parenting competence, using the HOME scale as the measure (Hannan et al., 1991). Hannan et al. (1991) utilized a large ethnically diverse sample of 602 mothers, including adolescents and older mothers, with an age range of 14 to 27. That study did not include ethnicity as a maternal characteristic.

For the situational characteristics (socioeconomic status, total social support, and the social support subscales, emotional support and guidance) socio-economic status, total enacted support, and *Emotional* subscale explained a significant amount of variance in parenting competence, approximately 32.9%. *Emotional* support contributed 20.7 % and

socioeconomic status significantly explained 12.2% of the variance in parenting competence. Total enacted social support and guidance failed to contribute significantly to parenting competence. Higher emotional support and higher socioeconomic status, as measured by the grandmother's completed level of education, significantly predicted higher parenting competence scores. The findings in this study were consistent with previous findings that found that emotional social support was noted as an important variable that can enhance an adolescent mother's ability to parent competently (Dormire et al., 1989; Furstenberg et al., 1987; Unger & Wandersman, 1988).

The final refined stepwise multiple regression model included all of the significant variables from the maternal and situational models (i.e., ethnicity, socioeconomic status and emotional support) and explained a total of 42.3% of the variance in parenting competence for adolescent mothers. The sixth remarkable finding was that *Emotional* support was the strongest explanatory variable with an explained variance of 20.7%. The two remaining variables, ethnicity, and socioeconomic status explained 14.1% and 7.5% of the variance in parenting competence. Socioeconomic status lost some significance as a predictor from the second equation to the third equation when ethnicity was included. Together, higher *Emotional* subscale scores, Caucasian ethnicity, and a higher socioeconomic status, as measured by the grandmother's completed level of education, significantly predicted higher parenting competence scores. Collectively these three variables explained the variance with parenting competence.

Theoretical Framework

Belsky (1984) indicated that the degree of stress and support provided by each subsystem, psychological resources, social network, child characteristics, not the absence

or presence of support or stress should be taken into consideration when determining the ramifications of the systems on parenting. He hypothesized that parents function most effectively when the psychological resources, social network, child characteristics operate in a supportive mode. Belsky also stated that parents' chances of providing optimal care are greatest when personal resources and contextual supports are positively activated and least when personal resources are the dysfunctional system. Personal resources include parental personality and psychological well being.

The findings in this study are consistent with Belsky's (1984) parenting model as the maternal variable of ethnicity and the situational variables of socioeconomic status and emotional support significantly explained parenting competence. These variables would be considered personal resources and contextual supports within Belsky's (1984) parenting model. The model does not specifically include ethnicity as a resource or factor that relates to parenting. This study considered ethnicity to be a maternal characteristic, defined as 'personality' within the model. The effect of ethnicity on parenting competence is an area that should be further explored to determine its contribution within this model.

In this study, psychological well being, measured with self-esteem, was not significantly related with parenting competence. It may, however, be a component of stress levels of the adolescent mothers and affect parenting through that process. The inclusion of additional psychological variables such as depression, resiliency, and adolescent aspirations, in a future research may provide more data regarding the importance of the psychological variables on parenting competence.

The child characteristic of fussiness was not a significant predictor of parenting competence. While Belsky's (1984) determinants of parenting model describe child characteristics as important components of parenting competence, child temperament, as measured by perceived fussiness, was not a significant explanatory variable in this study. A previous study found that younger adolescent mothers reported significantly more difficult infant temperament and that difficult infant temperament was significantly associated with depression and higher parent stress (Secco et al., 2003a).

Limitations of the Study

Limitations of the present study included the small sample size and convenience sampling methods. Both of these factors limit generalizability of the study findings to other settings and groups. The comparison and correlational design is also a limitation as it is difficult to make cause and effect statements from such a design. During the statistical analysis, missing data was managed by the deletion of cases pairwise and on a variable-by-variable basis for both independent and dependent variables. Attrition of adolescent mothers, and resultant loss of data, meant that the sample for analysis was further decreased. Unfortunately, this approach can result in issues of interpretation as the numbers of cases changes with each variable. Listwise deletion was not used for missing variables in order to maintain sufficient numbers for analysis and avoid deletion of entire cases.

A larger sample size would have resulted in greater power for the stepwise multiple regression techniques. This is an issue because stepwise regression tends to capitalize on the idiosyncrasies of a specific data set and using a smaller sample size will impact on the generalizability of the results (Polit & Beck, 2004).

Sample Representativeness

The study sample is not likely representative of adolescent mothers in Manitoba due to the specific recruitment from the adolescent clinics within the teaching hospitals. The sample included a range of ages representative of the majority of adolescent mothers in Manitoba, 16 or 17 years old. The socioeconomic status was likely somewhat lower than that of Manitoba adolescent mothers in general due to the selective recruitment. The differences in the ages of the ethnic groups was expected as the adolescent fertility rate for First Nation/Métis is higher than that for Caucasian adolescents. The sample ethnicity approximately represented the proportional provincial births for adolescent mothers, approximately 55% Caucasian and 45% First Nations/Métis peoples (Hallett, 2000). The number of First Nations/Métis adolescents giving birth is higher in some regions of the province, such as Thompson and Central Winnipeg. Adolescents in north rural Manitoba represent 12% of adolescents in the province and are responsible for 25% of the pregnancies in Manitoba (Hallett, 2000).

Recommendations

Recommendations for the applications of the findings in this study apply to registered nurses and others who provide care to and manage the needs of adolescent mothers. The findings from this study are applicable for registered nurses and other health care providers in the roles of direct care, education, research, program development, and policy decisions.

Direct Care

During the course of their pregnancy and parenting adolescent mothers may access a variety of health and social services through clinics, acute care facilities, educational

institutions, social workers, residential facilities and community services. Knowledge about predictors of positive parenting behaviours among adolescent mothers will help service providers inform their interactions with the adolescent mother and her child (ren). In this study, parenting competence was significantly correlated with socioeconomic status, emotional support, and ethnicity. In order of greatest prediction, emotional support was the strongest followed by ethnicity and socioeconomic status. Registered nurses and care providers should utilize this knowledge and incorporate an assessment of emotional supports, ethnicity, and socioeconomic status during interactions with the adolescent mother in order to determine the adolescent mother's needs. Determination of the adolescent mother's socioeconomic status, frequency, and type of emotional supports, and ethnicity should support the care provider in determining the course of action to take in managing the needs of the adolescent mother. Needs identified by the adolescent mother can then be addressed. Information on potential financial or social assistance can be provided to the adolescent mother, the care provider could work with the adolescent mother in identifying sources of emotional support for the adolescent mother and ethnic parenting needs.

The amount and type of emotional support that adolescent mothers are receiving should be assessed during an early visit with the adolescent mother, preferably during the first interaction. The questions could include items from the ISSB emotional support subscale (Barrera, 1981). The emotional support subscale questions that could be asked are: how often during the previous four weeks, did other people do the following activities for you, to you or with you: 'right there with you (physically) in a stressful situation,' 'let you know that you did something well,' 'comforted you by showing you

some physical affection,' 'listened to you talk about your private feelings,' let you know that he/she will always be around if you need assistance,' and 'expressed interest and concern in your well-being.' The frequency of interactions ranges from not at all to about every day. The health care provider should also include questions about the relationships with the people who are providing support.

Establishing a baseline assessment regarding emotional support will provide the care provider with initial information to determine the extent of the emotional support that is available to the mother. Adolescent mothers who do not receive any or negligible emotional supports can then be identified with the intent of the care provider to begin introducing other supports such as community supports, peer groups, and if possible and desirable, re-establishing relationships with the family of origin. Care providers could consult the Adolescent Parent Interagency Network as a source of information for care providers on issues and agencies that relate to adolescent parents. Community agencies and programs that are supportive to adolescents include the Adolescent Parenting Centre in Winnipeg, Ma Mawi Adolescent Parent Support Project, New Directions, and Family First.

Emotional support for adolescent mothers is provided in varying degrees through existing community programs. The Adolescent Parenting Centre provides adolescent mothers in Manitoba with the opportunity to complete their high school education. Educators, childcare workers, a public health nurse, a social worker, and the administration in every day interactions with the adolescent provide emotional support. They assist the mothers with parenting issues, nutritional and lifestyle choices, and obtaining financial assistance, while the adolescent mother completes her education.

Currently there is no formal assessment of emotional supports to the adolescent mothers. Incorporating an assessment of emotional supports may provide the adolescent mothers with knowledge of the types of emotional support available to them and allow them to access other supports. The Adolescent Parenting Centre does not have a focus on ethnic parenting styles of First Nation/Métis adolescent mothers. Providing an ethnic focus on parenting with their current programs may assist the First Nation/Métis adolescent mothers to enhance their parenting competence.

Other community programs include Ma Mawi Adolescent Parent Support Project and New Directions. In these two programs, adolescent mothers are provided emotional support through group and individual interactions that discuss parenting and issues facing adolescent single mothers with an ethnic focus and social assistance, through housing or an allowance. The findings of this study have been incorporated into these programs. Ma Mawi Adolescent Parent Support Project provides Aboriginal adolescents with a home while teaching effective parenting skills and preparing the adolescent for independent living. Staff members provide emotional support during interactions and teaching sessions. Adolescent mothers also have the opportunity to develop informal support mechanisms with other adolescent mothers. New Directions, Resources for Adolescent Parents program provides adolescent mothers with the opportunity to continue their academics and engage in group discussions with other young parents about the challenges facing adolescent single moms. The program utilizes the philosophy that a community of support parents is necessary in raising children. They provide a comprehensive approach to peri-natal education and care, encompassing physical and emotional well being, parenting education, and resources from a culturally appropriate perspective. Adolescent

mothers involved in the program engage in relationships with guardians to support their goals while attending the program. Adolescent mothers also receive a bus pass and training allowance during their involvement with the program. Both programs offer emotional support, address some of the issues with socioeconomic status, and incorporate ethnicity in their program. An assessment of the frequency and amount of emotional support available to the adolescent mother upon entry into the programs may assist in the planning of the amount of emotional supports that should be made available to the adolescent mother.

Parental education of adolescent mothers has been found to be beneficial for enhancing adolescent mother's knowledge regarding child growth and development and parenting. In a pre post test study, Culp, Blankemeyer, and Passmark (1998) reported that following six months of intervention adolescent mothers improved their knowledge on the parent developmental expectations of infant development, and infant development; improved their understanding of empathic responsiveness and child and parent roles in the family, enhanced the safety of their homes, and increased their involvement in the number of agencies in the community. In this study, parent educators provided weekly in-home education utilizing a manualized, yet individualized, curriculum on parenting skills, child development, home safety, and information on available community resources for six months. Education on parenting can be a positive experience for the adolescent mother and provide them with the knowledge necessary to provide a quality home environment for their child (ren).

The Home Observation for Measurement of the Environment (HOME) consists of two inventories designed to describe the types of stimulation in the child's home environment

that foster cognitive development (Boehm, 1989). The HOME measurement has been used with adolescent mothers in previous studies (Hannan et al., 1991; Schilmoeller et al., 1991; Secco et al., 2002) and is considered the gold standard for the measurement of quality home environments. The HOME scale is a tool that could be used by care providers during home visits to determine the quality of the home environment and parenting competence of the adolescent. Public health nurses, Baby First visitors, and other health care providers should consider using this instrument for initial assessments and follow up visits. Changes noted in the scoring could be utilized to determine the effectiveness of the home visits and to identify other parenting needs as they arise. A revised form of the instrument could also be given to the mother to determine her assessment of her parenting competence. Completion of the HOME scale is time consuming, approximately one hour is needed, and would necessitate educating health care providers on the use of the tool. These potential drawbacks may limit this type of usage.

The *Opportunities for Variety* HOME subscale includes an item that 'father provides some caregiving everyday.' Adolescent mothers may live with their parents, or boyfriend who play a fathering role but in many instances, they may live independently. This item may bias the scoring for single mothers living independently. This subscale should be revised to include other individuals in place of the father, such as a boyfriend, friend, grandmother, or grandfather who provide some caregiving several times per week. The scoring of this item should also be reviewed and be revised to score this item as a half point instead of a full point. Any revision should be tested to determine its relevance and

appropriateness. Revising the scoring may negate the potential negative scoring of the item.

Maternal ethnicity and socioeconomic status should also be included as part of the baseline assessment of adolescent mothers as potential predictors of parenting competence. The assessment should include questions regarding the adolescent mothers' ethnicity, parenting expectations, education, grandmother's education, income sources, and level of income for the adolescent mother as well as current living arrangements. Socioeconomic status may indicate whether the adolescent mother has sufficient income to house, feed, and clothe herself and her child and if an issue is determined, areas of concern can then be addressed through social services or other available community supports. Adolescent mothers could be referred to local Healthy Baby programs. Healthy Baby programs offer financial assistance for nutrition during pregnancy and community programs that offer nutritional and health information to expectant and new families. Healthy Baby does not specifically focus on adolescent mothers or ethnic groups. The inclusion of programs that focuses on adolescent mothers and ethnic appropriate parenting could provide more information and emotional support specifically directed at adolescents.

Education

The importance of knowledge about potential predictors of parenting competence among adolescent mothers should be shared with professionals involved with adolescent mothers such as high school teachers, counsellors, social workers, and registered nurses. An understanding of the differences between adolescent mothers and older mothers could inform and enhance interactions with adolescent mothers and provide evidence of the

need for new interventions for adolescent mothers. An example of a potential program for adolescent mothers is an interactive website that provides access to parenting, nutritional, and child development information, through text and video, and has chat rooms for adolescent mothers to interact with other adolescent mothers. The chat rooms could be specific to child ages to encourage adolescents to discuss with other mothers with children of like ages. The website could ask the adolescent mother questions regarding her current situation in relation to emotional support, socioeconomic status, parenting issues and ethnicity and make suggestions for information that would be helpful to her based on her responses to the initial questions.

Another example of a potential program for adolescent mothers include a weekly community based program that provides nutrition, information that is presented with the use of multimedia and uses game playing and role modeling to highlight the importance of different aspects of parenting such as importance of understanding and accepting child behaviour, developmental milestones, and appropriate play materials for different developmental stages. The emphasis of the program should be varied from week to week and involve the adolescent mothers to include their interests and the aspects of parenting they find the most difficult. The program should also include assisting the adolescents to identify the values they associate with parenting. Family First, formerly Baby First, has incorporated value identification as part of its program. Inclusion of this should increase the adolescent mother's awareness of her parenting beliefs and assist her in reflecting on the importance of different aspects of parenting. Service providers should be aware that, based on this study, different variables have relationships with parenting competence for adolescent mothers as shown in Table 5.1.

TABLE 5.1 VARIABLE RELATIONSHIPS WITH ASPECTS OF PARENTING COMPETENCE

	Older	Caucasian	Higher SES	Social support	Emotional support	Guidance
Parenting competence		√	√		√	
Emotional and verbal responsivity	√	√				
Provision of appropriate play materials			√	√	√	√
Maternal involvement with child	√	√	√	√	√	

Program Development and Policy Decisions

Knowledge of the factors that contribute to parenting competence of adolescent mothers should inform policy decisions and program development aimed at assisting adolescent mothers to parent competently by providing cognitively stimulating home environments for their children. Policy decisions for adolescent mothers should be made with a focus on the principles of population health and the determinants of health. The determinants of health include: social, economic and physical environments, early childhood development, personal health practices, individual capacity and coping skills, human biology, and health services (Health Canada, 2001). The findings of this study suggest that the receipt of emotional support, higher socioeconomic status, and Caucasian ethnicity are significant predictors of competent parenting for adolescent mothers. Policy decisions should consider the three predictors identified as significant in this study.

Inclusion of other health determinants could only enhance the living environments for adolescent mothers and their children.

Socioeconomic status influences the adolescent mother's ability to manage basic issues related to housing, income, food, clothing, and health management. Income and social status is seen as the most important determinant of health (Health Canada, 2003b). Social support networks are also associated with better health (Health Canada, 2003b) and emotional support was found in this study to be a positive predictor of parenting competence and healthy child development. Policy decisions should address the issues of socioeconomic status by providing the adolescent mothers with opportunities to develop their skills in a safe environment such as cooperative housing where the adolescent can learn the skills needed to manage a household.

Culture or ethnicity is a determinant of health as it shapes health-promoting (or damaging) behaviours. Cultural biases create stereotypes that influence physical and mental well-being or access to health-promoting services, and cultural discrimination (racism) prevents equitable access to other health determinants (income, social status, education, employment and working conditions) based on one's ancestry (Health Canada, 2003b). In this study, ethnicity was an important predictor of competent parenting. Caucasian mothers had higher mean HOME scores compared with First Nations/Métis adolescents. This may mean that First Nations/Métis adolescents require more education regarding parenting and child development or that First Nations/Métis adolescents have parenting values that differ from Caucasian mothers that were not appropriately assessed with the HOME scale. Further research on First Nations/Métis adolescent mothers would help explain the cultural/ethnic variance on parenting competence.

Program developers should consider the variables that affect an adolescent mothers ability to provide a quality home environment and parent competently. Adolescent mothers may have different needs than older mothers by virtue of their age and developmental stage. They are managing their own developmental issues and parenting a child. Programs should be developed to consider quality home environments, ethnicity, socioeconomic status, and emotional support. Programs should include educational programs for adolescent mothers to provide them with opportunities to learn about an infant's growth and development stages, appropriate play materials, level of interactions necessary for a child, appropriate discipline and nutrition for themselves and their child. The programs should include a social services component that could assist adolescent mothers with acquiring adequate safe housing, nutritional food, clothing, childcare information, and educational opportunities in an environment that is culturally appropriate and sensitive in its design, content and implementation (Health Canada, 2003b). Programs should also be designed to include opportunities for informal conversation and friendship formation between peers and service providers. Peer support groups should be created so that adolescent mothers with shared issues have the opportunity to communicate their similar life circumstances.

These social opportunities will increase participants' access to broader social networks and potentially provide emotional supports. Providing adolescent mothers with opportunities for additional emotional supports through professional and non-professional means, access to social services in ethnic appropriate environments should provide adolescent mothers with opportunities to meet their learning needs regarding parenting and assist them to successfully manage their lives.

Implications for Research

This study has identified some aspects of adolescent parenting that require further study. Future research should focus on predictors of parenting competence among adolescent parents with different parenting styles and values. In the area of First Nations/Métis adolescent parenting it is especially important to explore potential differences in parenting styles and to determine if the HOME scale is measuring the differences in parenting competence from a Euro-American focus. Future studies should focus on ethnicity, parenting behaviours and the adolescent mothers' learned behaviours about parenting in their culture and family structure. This approach may illuminate the adolescent mothers' expectations of her child and her planned parenting style. The adolescent mother's culturally appropriate parenting behaviours may differ from those of the care provider. Knowledge of the differences may assist the care provider in determining whether parenting education or referral to specialized parenting programs is necessary.

The predictors of parenting competence identified in this study should be further explored with a larger sample to determine whether findings are generalizable to other adolescent groups and settings. Further study of the subscales of the HOME scale would also be important to specify the parenting elements that are affected among adolescent mothers. The subscales have not been studied extensively with adolescent mothers and future research may identify significant variables that have a positive relationship with the HOME subscales. Emotional support was found to be the strongest predictor of parenting competence and future research should determine specific quantity or quality of

emotional support necessary for parenting competence. Emotional support varies among different individuals and its positive affect on parenting competence may also differ.

This study indicated that younger and older adolescents provided significantly different amounts of variety in daily stimulation to their child. Older adolescents are providing more variety in daily stimulation to their child. This suggests that older adolescents are becoming less egocentric and more in touch with what is important to their child. Further research is necessary to determine what causes this difference and to further explore effectiveness of interventions to teach adolescent mothers about the parent role and the best type of home environment for their child.

Summary

Registered nurses and other health care providers must be aware of the adolescent mother's needs and predictors of positive parenting competence to assist them in determining interventions, education, program design, policy decisions, and future research. Knowledge regarding the significance of specific variables on the adolescent mothers' parenting competence level will inform program and intervention decisions for this group. Evaluation of theoretical frameworks for research may inform model development and planning of appropriate interventions to improve the adolescent mothers parenting skills. Nurses can further explore opportunities for adolescent mothers to further develop their parenting skills and lead the development and evaluation of interventions for adolescent mothers.

Many research studies have been completed with adolescent mothers and the various facets of their rather complicated circumstances. Some researchers have reported that adolescent mothers have the capacity to grow and adapt to circumstances and find ways

to provide quality home environments and positive parenting for their children. Further research in these areas may identify the variables that contribute to this growth. Such findings would enable policy decisions and program development that would help support and enable adolescent mothers to achieve their full potential.

This study indicated that emotional support, ethnicity, and socioeconomic status predicted parenting competence for adolescent mothers from 15 to 19 years of age. In addition, adolescent mothers who were First Nations or Metis demonstrated lower levels of parenting competence compared with Caucasian adolescents. Further exploration with larger samples is needed to determine the role of ethnicity as a determinant of parenting skills for adolescent mothers. It is possible that other circumstances among adolescents of First Nations/Métis ethnicity are significantly related to parenting competence. While there is no one equation that predicts the parenting competence of adolescent mothers, future research into the intricacies of adolescent mothers will provide deeper insight and understanding and inform future decisions.

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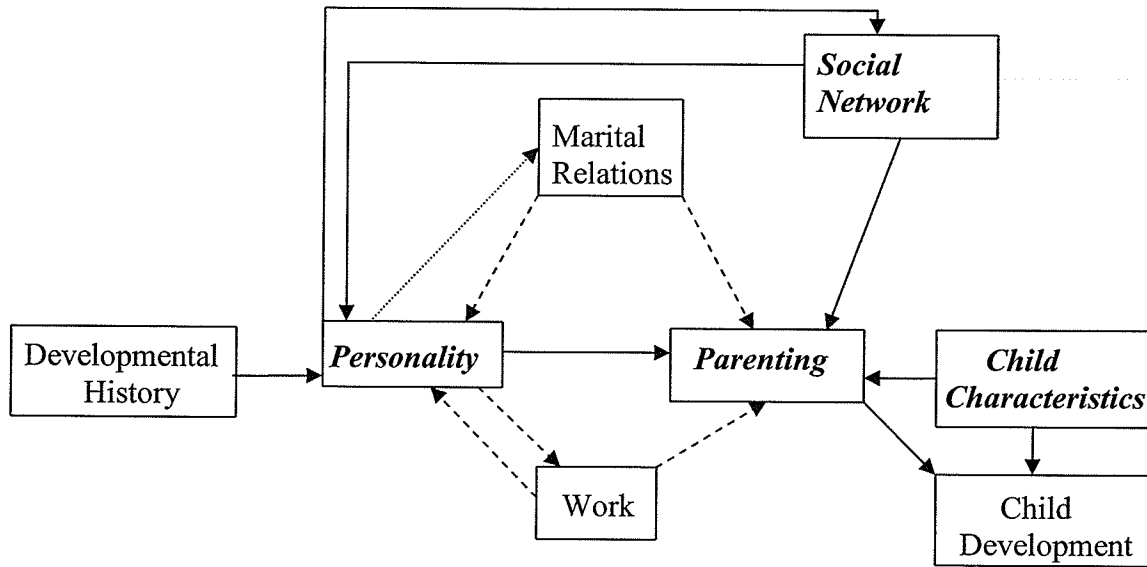
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Appendix A. Process model of the determinants of parenting
(Belsky, 1984)



Appendix B. Demographic Information

Mother of Baby

Age: _____

Due Date: _____

Date of Birth: _____

Racial Background:

Black _____

Asian _____

Native Indian _____

Caucasian _____

Other: please specify: _____

Do you have other children at home: Yes _____ No _____

If you have other children, please list their birth dates:

List the highest grade you completed in school: _____

Are you currently attending school: _____

Which school: _____

Are you:

Single _____

Married _____

Divorced _____

Common law _____

Other (please specify): _____

List your main source of money: _____

You live in whose home/apartment:

_____ my own

_____ my boyfriend's or husband's

_____ my parent's

_____ other (please specify: _____)

Do you smoke cigarettes? _____ Yes _____ No

If you smoke, approximately how many cigarettes do you smoke per day? _____

Your mother's occupation: _____

Your father's occupation: _____

Circle the highest level of school or college that your mother and father completed:

- MOTHER:**
1. 1 - 8th grade
 2. 9 - 12th grade
 3. Vocational or some college
 4. College graduate
 5. Graduate or professional school

- FATHER:**
1. 1 - 8th grade
 2. 9 - 12th grade
 3. Vocational or some college
 4. College graduate
 5. Graduate or professional school

Father of Baby:

Date of birth: _____ or Age: (if birthday unknown) _____

Racial Background:

Black _____ Asian _____
Native Indian _____ Caucasian _____
Other: please specify: _____

Highest grade completed in school: _____

Is the father of the baby employed: YES _____ NO _____

Occupation: _____

Baby

Date of birth: _____ Sex: boy _____
girl _____

Birth weight: _____ height: _____

Health: good _____
other _____

Feeding: Breast: _____
Bottle _____

In case of difficulty reaching you for this study, could you write down the names and address of a family member and a friend whom I could call or contact to help me reach you:

FRIEND'S NAME:

Address:

phone number:

**FAMILY MEMBER'S
NAME:**

Address:

Phone Number:

Participant's Phone

Address:

Appendix C. Rosenberg's Self - Esteem Scale
(Rosenberg, 1965a)

Please respond by circling your response to each of the following questions:

SA = strongly agree
A = agree

D = disagree
SD = strongly disagree

- | | | | | | |
|-----|--|----|---|---|----|
| 1. | On the whole, I am satisfied with myself. | SA | A | D | SD |
| 2. | At times I think I am no good at all. | SA | A | D | SD |
| 3. | I feel that I have a number of good qualities. | SA | A | D | SD |
| 4. | I am able to do things as well as most other people. | SA | A | D | SD |
| 5. | I feel I do not have much to be proud of. | SA | A | D | SD |
| 6. | I certainly feel useless at times. | SA | A | D | SD |
| 7. | I feel that I'm a person of worth, at least on an equal plane with others. | SA | A | D | SD |
| 8. | I wish I could have more respect for myself. | SA | A | D | SD |
| 9. | All in all, I am inclined to feel that I am a failure. | SA | A | D | SD |
| 10. | I take a positive attitude toward myself. | SA | A | D | SD |

Appendix D. Infant Characteristics Questionnaire

(Bates et al., 1979)

1. How easy or difficulty is it for you to calm or soothe your baby when he/she is upset?
2. How consistent is your baby in sticking to his/her sleeping routine?
3. How consistent is your baby in sticking to his/her eating routine?
4. How easy or difficult is it for you to know what's bothering your baby when he/she cries or fusses?
5. How many times per day on the average, does your baby get fussy and irritable—for either short or long periods of time?
6. How much does your baby cry and fuss in general?
7. How does your baby typically respond to new playthings?
8. How does your baby typically respond to new foods?
9. How does your baby typically respond to a new person?
10. How does your baby typically respond to being in a new place?
11. How well does your baby adapt to new experiences (such as items 7-10) eventually?
12. How easily does your infant get upset?
13. When your baby gets upset, how vigorously or loudly does he/she cry and fuss?
14. How does your baby react when you are dressing him/her?
15. How active is your baby in general?
16. How much does your baby smile and make happy sounds?
17. What kind of mood is your baby generally in?
18. How much does your baby enjoy playing with you?
19. How much does your baby want to be held?
20. How does your baby respond to disruptions and changes in the everyday routine, such as when you go to church or a meeting, on trips, etc.?

21. How changeable is your baby's mood?
22. How excited does your baby become when people play with or talk to him/her?
23. On the average, how much attention does your baby require, other than for caregiving (feeding, diaper changes, etc.)?
24. When left alone, your baby plays well by himself/herself?
25. How does your baby react to being confined (as in a car seat, infant seat, playpen, etc.)?
26. How much does your baby cuddle and snuggle when held?
27. How easy or difficult is it to take your baby places?
28. Does your baby persist in playing with objects when he/she is told to leave them along?
29. Does your baby continue to go someplace even when told something like "stop", "come here" or "no-no"?
30. When removed from something he/she is interested in but should not be getting into, your baby gets upset.
31. How persistent is your baby in trying to get your attention when you are busy?
32. Please rate the overall degree of difficulty your baby would present for the average mother.

Appendix E. Inventory of Socially Supportive Behaviours

(Barrera, 1986)

1. Looked after a family member while you were away.
2. Was right there with you (physically) in a stressful situation.
3. Provided you with a place where you could get away for awhile.
4. Watched after your possessions when you were away (pets, plants, home, apartment, etc).
5. Told you what he/she did in a situation that was similar to yours.
6. Did some activity with you to help you get your mind off things.
7. Talked with you about some interests of yours.
8. Let you know that you did something well.
9. Went with you to someone who could take action.
10. Told you that you are O.K. just the way you are.
11. Told you that she/he would keep the things that you talk about private – just between the two of you.
12. Assisted you in setting a goal for yourself.
13. Made it clear what was expected of you.
14. Expressed esteem or respect for a competency or personal quality of yours.
15. Gave you some information on how to do something.
16. Suggested some action that you should take.
17. Gave you over \$25.00
18. Comforted you by showing you some physical affection.
19. Gave you some information to help you understand a situation you were in.
20. Provided you with some transportation.

21. Check back with you to see if you followed the advice you were given.
22. Gave you under \$25.00
23. Helped you understand why you didn't understand something well.
24. Listened to you talk about your private feelings.
25. Loaned or gave you something (a physical object other than money) that you needed.
26. Agreed that what you wanted to do was right.
27. Said things that made your situation clearer and easier to understand.
28. Told you how he/she felt in a situation that was similar to yours.
29. Let you know that he/she will always be around if you need assistance.
30. Expressed interest and concern in your well-being.
31. Told you that she/he feels very close to you.
32. Told you who you should see for assistance.
33. Told you what to expect in a situation that was about to happen.
34. Loaned you over \$25.00
35. Taught you how to do something.
36. Gave you feedback on how you were doing without saying it was good or bad.
37. Joked and kidded to try and cheer you up.
38. Provided you with a place to stay.
39. Pitched in to help you do something that needed to get done.
40. Loaned you under \$25.00

Appendix F. Home Observation for Measurement of the Environment

(Caldwell et al., 1984)

Family Name _____ Date _____

Visitor _____

Child's Name _____ Birthdate _____ Age _____ Sex _____

Caregiver for visit _____ Relationship to child _____

Family Composition: _____

(Persons living in household, including sex and age of children)

Family Language Maternal Paternal

Ethnicity _____ Spoken _____ Education _____ Education _____

Is Mother employed? _____ Type of work when employed _____

Is Father employed? _____ Type of work when employed _____

Address _____

Phone _____

Current child care arrangements _____

Summarize past years arrangements

Caregiver for visit _____

Other persons present _____

Summary

Subscale	Score	Percentile Range		
		Lowest Fourth	Middle Half	Upper Forth
I. Learning Stimulation		0 - 2	3 - 9	10 - 11
II. Language Stimulation		0 - 4	5 - 6	7
III. Physical Environment		0 - 3	4 - 6	7
IV. Warmth and Affection		0 - 3	4 - 5	6 - 7
V. Academic Stimulation		0 - 2	3 - 4	5
VI. Modeling		0 - 1	2 - 3	4 - 5
VII. Variety in Experience		0 - 4	5 - 7	8 - 9
VIII. Acceptance		0 - 2	3	4
Total Score		0 - 29	30 - 45	46 - 55

Home Inventory (preschool)

Place a plus (+) or minus (-) in the box alongside each item if the behaviour is observed during the visit or if the parent reports that the conditions or events are characteristic of the home environment. Enter the subtotals and the total on the front side of the Record Sheet.

I. LEARNING STIMULATION

1. Child has toys which teach color, size and shape.
2. Child has three or more puzzles.
3. Child has record player and at least five children's records.
4. Child has toys permitting free expression.
5. Child has toys or games requiring refined movements.
6. Child has toys or games which help teach numbers.
7. Child has at least 10 children's books.
8. At least 10 books are visible in the apartment.
9. Family buys and reads a daily newspaper.
10. Family subscribes to at least one magazine.
11. Child is encouraged to learn shapes.

II. LANGUAGE STIMULATION

12. Child has toys that help teach the names of animals
13. Child is encouraged to learn the alphabet.
14. Parent teaches child simple verbal manners (please, thank you)
15. Mother uses correct grammar and pronunciation.
16. Parent encourages child to talk and takes time to listen.
17. Parent's voice conveys positive feeling to child
18. Child is permitted choice in breakfast or lunch menu.

III. PHYSICAL ENVIRONMENT

19. Building appears safe.
20. Outside play environment appears safe.

21. Interior of apartment not dark or perceptually monotonous.
22. Neighborhood is esthetically pleasing.
23. House has 100 square feet of living space per person.
24. Rooms are not overcrowded with furniture.
25. House is reasonably clean and minimally cluttered.

IV. WARMTH AND ACCEPTANCE

26. Parent holds child close 10 – 15 minutes per day.
27. Parent converses with child at least twice during visit.
28. Parent answers child's questions or requests verbally.
29. Parent usually responds verbally to child's speech.
30. Parent praises child's qualities twice during visit.
31. Parent caresses, kisses, or cuddles child during visit.
32. Parent helps child demonstrate some achievement during visit.

V. ACADEMIC STIMULATION

33. Child is encouraged to learn colors.
34. Child is encouraged to learn patterned speech (songs, etc)
35. Child is encouraged to learn spatial relationships.
36. Child is encouraged to learn numbers.
37. Child is encouraged to learn to read a few words.

VI. MODELING

38. Some delay of food gratification is expected.
39. TV is used judiciously.
40. Parent introduces visitor to child.
41. Child can express negative feelings without reprisal.
42. Child can hit parent without harsh reprisal.

VII. VARIETY IN EXPERIENCE

43. Child has real or toy musical instruments.
44. child is taken on outing by family member at least every other week.
45. Child has been on trip more than fifty miles during last year.
46. Child has been taken to a museum during past year.
47. Parent encourages child to put away toys without help.
48. Parent uses complex sentence structure and vocabulary.
49. Child's art work is displayed some place in house.
50. Child eats at least one meal per day with mother and father.
51. Parent lets child choose some foods or brands at grocery store.

VIII. ACCEPTANCE

52. Parent does not scold or derogate child more than once.
53. Parent does not use physical restraint during visit.
54. Parent neither slaps nor spansks child during visit.
55. No more than one instance of physical punishment during past week.