

**RELATIONSHIPS BETWEEN SELF-ESTEEM, GENDER ROLE IDENTITY,
AND BODY IMAGE IN ADOLESCENT GIRLS
AND THEIR MOTHERS**

by

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ABSTRACT

The present study was conducted in order to investigate the relationships between self-esteem, gender role identity, and body image in adolescent girls and their mothers. The study included two samples. The first sample consisted of menstrual girls and their mothers, while the second sample contained mother/pre-menstrual daughter pairs. Self-esteem and gender role identity were identified as predictor variables. Body image was the criterion variable.

One hundred and thirteen mother/adolescent daughter pairs volunteered to participate in the study. The Body Image Subscale of the Self-Image Questionnaire for Young Adolescents (SIQYA) was utilized as a measure of body image. The Rosenberg Self-Esteem Scale was utilized as a measure of self-esteem, and the Bem Sex-Role Inventory (BSRI) was administered in order to measure gender role identity. A researcher-designed demographic questionnaire was also administered to all participants. Statistical analysis included: 1) step-wise multiple regression analysis 2) correlation matrix 3) t-tests on selected variables.

Hypothesis I and II stated that for menstrual daughters and their mothers, self-esteem, as measured by the scores on the Rosenberg Self-Esteem Scale, and gender role identity, as measured by the Bem Sex-Role Inventory (BSRI) would not predict body image, as measured by scores on the Body Image

Subscale of the Self-Image Questionnaire for young Adolescents (SIQYA). Significant results were found (on the $p \leq .05$ level), and the null hypotheses were therefore rejected.

Hypothesis III stated that mothers' body image scores would not predict body image scores for their menstrual daughters. Significant results were found (on the $p \leq .05$ level), and the null hypothesis was therefore rejected.

Hypothesis IV and V stated that for premenstrual daughters and their mothers, respectively, scores on self-esteem and gender role identity would not predict scores on body image, as measured by the instruments indicated above. Significant results (on the $p \leq .05$ level) were found for pre-menstrual daughters on gender role identity, and on self-esteem for mothers. The null hypotheses were therefore rejected in those cases.

A significant correlation was not found between body image scores for premenstrual girls and their mothers. Null Hypothesis VI was therefore accepted.

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CHAPTER ONE

Statement of the Problem

Introduction

Body image has become a topic of increasing interest among researchers. Characteristically, however, body image has been investigated in the context of its relation to eating disorders (Attie & Brooks-Gunn, 1989; Fabian & Thompson, 1989; Mendelson & White, 1985; Strober & Yager, 1985; Thompson & Dolce, 1985; Wooley & Wooley, 1985). As a result, much of our understanding of body image is based on this collection of literature. An outcome of this research has been a trend among researchers of eating disorders to hypothesize that the development of body image has implications that reach far beyond this area of inquiry. Contemporary literature reflects an awareness among researchers that body image may be related to many aspects of human development including self-esteem, sexuality, familial relationships, and identity (Attie & Brooks-Gunn, 1989; Jackson, Sullivan, & Rostker, 1988; Koff, Rierdan, & Silverstone, 1978; Rosenbaum, 1979).

Conceptualization and Definition of Body Image

The concept of body image has long been the source of much exploration, analysis, and debate. Theorists in the area such as Fisher & Cleveland (1968), Schilder (1935), and Schontz, (1969) have struggled with creating a clear

definition of body image. Many definitions have been offered, but to date the subject remains the topic of a great deal of controversy. Recently theorists have argued that body image is:

the subject as well as the object of mental activity...it is both cognitive and emotional in content...it is structure as well as process. The body image has the power to extend beyond the confines of the personal body and to engage in social exchanges with the body images of others (Schontz, 1969, p.170).

In a similar vein, Fisher & Cleveland (1968) have argued that body image functions as a boundary between self and environment. Theoretically, those individuals with strong boundaries will be able to function or cope more effectively than those with permeable, or diffuse boundaries. There is agreement in the literature that the concept of body image is multidimensional and complex: it involves both internal- biological and psychological factors and external social factors (Blyth, Simmonds, & Zakin, 1985; Garner, Garfinkel, Schwartz, & Thompson, 1980; Petersen et al., 1984; Rosenbaum, 1979).

Schonfield (1964) has argued that an individual's body image is influenced by several factors, including the way others react to her, a comparison of her development with the physical development of those around her, and by a

comparison to cultural ideals. Blyth et al. (1985) note that the individual's subjective experience of her body, as well as her observable physical characteristics, are vital to an understanding of body image. An investigation of body image must therefore take into account an individual's subjective assessment of their bodies. This makes the measurement of body image a difficult task. Traditional measures of body image have been criticized on the grounds that they attempt to measure the individual's perception of her size, with no attention to the meanings subjects ascribe to their physical characteristics (Thompson & Dolce, 1989; Wooley & Wooley, 1985). A comprehensive measure of body image then, must include and differentiate between cognitive/rational and affective/emotional aspects (Thompson & Dolce, 1989).

In addition, body image is seen as a process which is constantly in flux: it evolves, is altered and shifts according to life experiences. "Body image is more than an abstract concept; it is a many layered, evolving set of memories. It is an integral part of the integrative function of the mind" (Wooley & Wooley, 1985, p.397). As a result of this perspective, body image measures have been developed which relate affective components to assessments of body size and shape (Petersen et al., 1984). In this study the researcher attempted to incorporate this broader conceptualization of body image into the design and overall

structure of the study through the inclusion of a body image measure which taps the affective components of this variable.

Relation of Body Image to Self Esteem

The results of earlier studies indicate that body image is an important component of identity development at adolescence (Clifford, 1971; Golombeck, Marton, Stein, & Korenblum, 1987; Koff et al., 1978). Some researchers have called for further research which would provide information on the relation of body image to specific factors such as identity formation and self-esteem (Attie & Brooks-Gunn, 1989; Fabian & Thompson, 1989; Jackson et al., 1988). For example, studies investigating the relationship between body image and self-esteem suggest that for women, in particular, there is a tendency for low self-esteem to be correlated with negative body image (Jackson, Sullivan, & Rosker, 1988; Jones & Mussen, 1958; Lerner, Orlos, & Knapp, 1976; McCaulay, Mintz, & Glenn, 1978; Noles, Cash, & Winstead, 1975; Rosen & Ross, 1968; Secord & Jourard, 1953).

This phenomenon is exemplified in a study conducted by McCaulay et al., (1988). The researchers administered self-report measures to 176 college undergraduates in order to examine the relationships between body image, self-esteem, and depression-proneness. Results indicated that women expressed more dissatisfaction with their bodies than men.

The authors also reported a positive correlation between body image and self-esteem, with lower self-esteem being associated with negative body image.

Developmental researchers and theorists have argued that accommodation to pubertal changes is a key developmental task of adolescence (Attie & Brooks-Gunn, 1989; Blyth et al., 1985; Fabian & Thompson, 1989; Petersen, 1988; Petersen et al., 1984; Rosenbaum, 1979, Tobin-Richards et al., 1983). While this task must be met by both girls and boys, the impact of physical changes on self-esteem seems to be greater for girls than for boys. Empirical evidence reveals that adolescent girls tend to report less satisfaction with their bodies and correspondingly lower levels self-esteem than their male cohorts (Clifford, 1971; Gove & Herb, 1974; Offer et al., 1982; Petersen, 1988; Simons & Rosenberg, 1975; Tobin-Richards, Boner, & Petersen, 1983). For example, in an investigation of body image and self-esteem involving 97 adolescent girls and boys, Mendelson & White (1985) administered self-report measures to determine the relationship of the variables at various ages. The researchers reported that adolescent girls had significantly lower self-esteem and more negative body image than their male counterparts.

The collection of research on the relationship between self-esteem and body image at adolescence demonstrates that

for adolescents, like adults, low self-esteem and negative body image are correlated, particularly for women and girls. The nature of this relationship, and in particular, its negative impact on the self-perceptions of adolescent girls is as yet poorly understood.

Development of Gender Role Identity

Researchers have also identified the formation of gender role identity as a key developmental task at adolescence (Attie & Brooks-Gunn, 1989; Petersen, 1988; Rosenbaum, 1979). Bem's (1981) gender schema theory suggests that the manner in which an individual forms gender role identity is a function of the weight they ascribe to cultural definitions of masculinity and femininity. From this perspective, a young girl's self-esteem and self-concept are influenced by the degree to which she believes herself to meet cultural standards. This can be particularly problematic for adolescent girls, who may be influenced to a great degree by contemporary images in the media which depict the ideal woman as extremely thin, passive and overly sexualized, while at the same time both career and family oriented. These conflicting and unrealistic cultural standards may result in confusion and a sense of inadequacy for both adult women and adolescent girls (Garner et al., 1980; Petersen, 1988; Steiner-Adair, 1986; Thorbecke & Grotevant, 1982; Wooley & Wooley, 1985).

For example, in their investigation of the relationships between body image and gender role identity, Jackson et al. (1988) administered self-report measures to 106 female and 60 male undergraduates. The authors reported that women who defined themselves as feminine tended to report negative body image. In a similar study, Hawkins, Turell, & Jackson (1983) surveyed 80 female and 99 male undergraduates. Results of self-report measures indicated that high scores on femininity were related to negative body image, dieting tendencies, and low achievement motivation, particularly for women.

Contemporary research suggests that gender role identity is related to body image and self-esteem. In particular, evidence from research indicates a tendency for femininity to be associated with negative body image and self-esteem. The majority of research in this area has been conducted using adult women. As a result, the relationships between these variables at adolescence is not understood.

Role of Mother-Daughter Relationship

Studies which investigate components of adolescent development have indicated that familial relationships also play an important role in identity formation (Gold & Yanoff, 1985; Golombeck, Marton, Stein, & Koernblum, 1987; Holmbeck & Bale, 1988; Isberg, Hauser, Jacobson, Powers, Noam, Weis-Perry, & Folansbee, 1989; Kamptner, 1988; LeCroy, 1988;

Offer, Ostrov, & Howard, 1982). The relationship between mothers and adolescent daughters has been identified as a particularly significant factor in adolescent development (Holmbeck & Hill, 1986; Isberg et al., 1989; Kamtner, 1988; Leaper, Hauser, Kremen, Powers, Jacobson, Noam, Weis-Perry, & Follansbee, 1989). In particular, the mother-adolescent daughter relationship has been identified as the strongest predictor of self-image in adolescent girls (Holmbeck & Hill, 1986; Leaper et al., 1989; LeCroy, 1988; Offer, Astrov, & Howard, 1982). For example, a study conducted by Offer et al., (1982) on 106 teenagers and their families reported that the mother-daughter dyad was a strong predictor of daughters' self-image.

These findings are in keeping with both the object relations and self in relation theoretical perspectives. According to both these models of development, a girl's interactions with her mother form the basic structure, or context, within which her self-concept evolves (La Sorsa & Fodor, 1990; Miller, 1976; Surrey, 1985; Rubin, 1983). These theorists posit that the process of development is dynamic and reciprocal; that is, both mother and adolescent daughter are experiencing developmental transitions, and each affects the other (La Sorsa & Fodor, 1990; Surrey, 1985; Rubin, 1983; Wooley & Wolley, 1985).

Some studies have been conducted on the relationships between mothers and daughters in terms of gender role identity (Jackson, Ialongo, & Stollak, 1986). For example, in their investigation of parental and child gender roles, Jackson et al. (1986) administered self-report measures to 184 undergraduates and their parents. The results obtained through a regression analysis of the data revealed that femininity scores of the daughters were predicted by the femininity scores of the mothers.

As well, mothers and daughters have been investigated in an effort to identify predictors, or risk factors in eating disorders. For example, Attie & Brooks-Gunn (1989) conducted a two-year longitudinal study of mothers and daughters which explored the relationships between body image, eating disturbance, and family relationships in adolescent girls and their mothers. The authors reported that body image emerged as a predictor of eating disturbance for adolescent girls, and that mothers' eating disturbance scores predicted eating disturbance in daughters. Because eating disturbance was defined as the dependent or criterion variable, the study did not make a direct comparison between mothers and daughters on body image scores.

Research on adolescent development suggests that for the adolescent girl, the mother-daughter relationship may

provide the context in which identity formation occurs (Holmbeck & Hill, 1986; Isberg et al., 1989; Kamptner, 1988; Leaper et al., 1989). In particular, research has indicated that the mother-daughter relationship is related to the daughter's self-esteem, with a close relationship associated with high self-esteem (Offer et al., 1982). As well, there is evidence to suggest that femininity in mothers is related to femininity in daughters (Jackson et al., 1986). Existing research therefore provides evidence that the mother-daughter relationship may be a critical variable in any investigation of female adolescent development.

Impact of Menarche on Adolescent Development

There is evidence in the literature that the onset of menstruation is a pivotal event in the development of the adolescent girl (Attie & Brooks-Gunn, 1989; Fabian & Thompson, 1989; Koff et al, 1978; Petersen, 1988; Rierdan & Koff, 1980; Rosenbaum, 1978). For example, a study conducted by Rierdan & Koff (1980) involving human figure drawings by 153 adolescent girls revealed significant differences between the body images of pre-menstrual and menstrual girls. The authors reported that the pre-menstrual participants emphasized specific body parts, while the menstrual girls demonstrated a more integrated body image.

Differences between pre-menstrual and menstrual girls have also been reported in terms of their relationships with

their families. For example, Hill, Holmbeck, Marlow, Green, & Lynch (1985) utilized data obtained through observation and questionnaires to investigate the associations between menarchal status and child-parent relationships in 62 mothers, 61 fathers, and their daughters. The researchers reported results of regression analyses which revealed significant differences between girls according to menstrual status. For example, mothers were perceived by menarchal daughters as being less accepting and more controlling than mothers of premenstrual daughters. As well, menarchal daughters were reported to participate in family activities less often than premenstrual girls. This evidence suggests that changes in the mother-daughter relationship may be associated with menarchal status, and points to the importance of the onset of menstruation in the identity formation and behavior of the adolescent girl.

Conclusion

There is support in the literature to suggest that relationships exist between individual factors such as self-esteem, gender role identity, and body image in both adult women and adolescent girls. For example, as discussed previously, studies have been conducted on adults or adolescents which examine relationships between self-esteem and body image, and some studies have been conducted which explore the relationships between gender role identity and

body image in adult women (Jackson et al., 1988; Whitely, 1983, 1988). However, little research has been conducted on the relationships between these variables at adolescence. In particular, research on gender role identity and its relation to body image at puberty has yet to be explored.

There is also a paucity of research which explores the relationships between the variables of body image, gender role identity, and self-esteem in the context of the mother-daughter relationship. Thus, although there is empirical evidence to suggest that the mother-daughter relationship is critical to the formation of identity in the adolescent girl (Holmbeck & Hill, 1986; Leaper et al., 1989; Le Croy, 1989; Offer et al., 1982), studies have not been conducted which attempt to link the variables listed above within the context of this relationship.

In summary, although research on adolescent development has investigated relationships between the variables of body image, gender role identity, and self-esteem independently, to date investigations have not explored these relationships within a single study. Furthermore, despite evidence offered by previous researchers that the mother-daughter relationship is a critical factor in identity formation for the adolescent girl, studies have yet to explore the relationships between variables in this context. As well, although research indicates that for girls the onset of

menarche acts as a pivotal event for the formation of identity, the implications of the changes triggered by menarche have not been studied in depth. Specifically, the role of the onset of menarche in the adolescent girl's development of body image, self-esteem, and gender role identity has yet to be examined directly.

Theoretical perspectives support the notion that the impact of the onset of menarche has implications for both mother and daughter, and triggers an interactive process of developmental transition (La Sorsa & Fodor, 1990). To date, however, little research has been done to explore the nature of this phenomenon and to add empirical support to existing theoretical perspectives.

Purpose of the Study

The purpose of the present study was to explore the relationship between self-esteem, gender role identity and body image, for mothers and their adolescent daughters. Given the cultural, social, biological, and developmental significance of menarche, the adolescent girls who participated in the study included those who had experienced the onset of menstruation within 36 months of the time of study and a similar group of girls who had not yet experienced menstruation.

Body image was identified as the criterion variable under investigation. Predictor variables were gender role

identity and self-esteem. In the study the researcher attempted to determine a) if body image is related to self esteem in adolescent girls, b) if body image is related to gender role identity in adolescent girls, c) if mothers' ratings of body image, self-esteem, and gender role identity are related to ratings on these variables by their adolescent daughters, and d) for adolescent girls, if relationships between scores on the variables differ according to menarchal status.

Because this investigation was concerned exclusively with aspects of the development of body image in women, individuals are referred to as "she" or "her". Women were chosen for the focus of this study due to a large amount of research which suggests that women and girls tend to demonstrate greater dissatisfaction with their bodies, and a lower level of self-esteem, than men (Clifford, 1971; Jackson et al., 1988; Petersen, Schulenberg, Abramovitz, Offer, & Jarcho, 1984; Petersen, 1988; Rozin & Fallon, 1988). Women and girls were also chosen due to research on the onset of menarche, which highlights the social and cultural significance of this event in the life of the adolescent girl (Delaney, Lupton, & Toth, 1988).

Results of this study may be useful both in terms of providing information which may lead to further research, and in the application by clinicians who work in the field

of adolescent counselling. To date, relationships between the variables under investigation have not been examined specifically in the context of the mother-daughter relationship. Therefore, information provided by this study may be useful to researchers interested in conducting more extensive research in this area. As well, results of this study may enhance the understanding of clinicians in the field of adolescent counselling, including those in the areas of eating disorders, sexuality, and family therapy. For example, an enhanced understanding of the interactive nature of the mother-daughter relationship may aid family and adolescent counsellors in their approach to the difficulties experienced by their women clients in negotiating the developmental tasks associated with menarche. As well, information on the relationships between self-esteem, and gender role identity, menarchal status, and body image may be valuable to both counsellors and educators of adolescent girls. This information may be used to intervene when adolescents encounter difficulties in these areas. For example, an understanding of the interrelationships among these variables may be useful in the treatment of eating disorders and body image disturbance. As well, the information obtained through this study may be useful to educators in terms of the application

of interventions with younger girls which may act to prevent future difficulties in coping with developmental tasks.

Limitations of the Study

The study was limited by the lack of randomization in sample selection. Accordingly, the generalizability of results was limited by the characteristics of the sample itself. Thus, it could be argued that the size of the sample ($n = 226$) and the method of selection (recruitment through secondary school students and their parents) resulted in a sample which represented only a specific segment of the general population. Inconsistencies in the method of recruitment (some participants were recruited through interactions with daughters, while others were recruited through interactions with mothers) may have acted as a potentially confounding factor, thus limiting the strength of the results obtained. The characteristics of the sample, such as a fairly high degree of affluence, predominantly western European ethnicity, and non-religiosity limit the generalizability of results. As well, selection did not require that the participants be members of intact families. Overall, the sample consisted of participants who lived in a setting involving both a father and a mother. As such, the ratio of single parent/intact/blended families represented in the sample could have presumably affected the outcome of the study. Finally, the focus of the study was on the

relationships between the variables of self-esteem, body image, and gender role identity; conclusions of causation cannot be drawn. This study, therefore, was seen as an exploratory investigation only. Information obtained in the study may serve to indicate the direction for future research, and may prove to be valuable for therapeutic application by clinicians.

Definition of Terms

For the purposes of this study, the following operational definitions were used:

Self-image or self-concept: A multidimensional, phenomenological organization of an individual's experiences and ideas about themselves in all aspects of their lives, manifested through functioning in social domains and through psychological functioning. (Coombs, 1981; Offer, Ostrov, & Howard, cited in Petersen et al., 1984).

Self esteem: an evaluative component of self-image; a unidimensional, generalized sense of self-worth and self-acceptance (Petersen et al., 1984; Rosenberg, 1979; Wells & Marwell, 1976; Wylie, 1979).

Body image: "the picture of our body which we form in our mind" (Schilder, 1935, p.11).

Gender role identification: the process by which an individual organizes their self-concept and behavior on

the basis of cultural definitions of masculinity and femininity. (Bem, 1981).

Gender role or sex-role: the outcome of gender role identification; determined by the degree to which cultural definitions are integrated into an individual's self-concept (Bem, 1981).

Masculinity: a set of culturally defined prescriptions for attitudes and behavior considered to be appropriate for males. In contemporary Western culture, these include autonomy, instrumentality, and lack of emotional expressivity (Bem, 1981).

Femininity: a set of culturally defined prescriptions for behavior and attitudes considered to be appropriate for females. In contemporary Western culture, these include emotional expressivity, nurturance, and interdependence (Bem, 1981).

Androgyny: a term for those individuals who describe themselves as having a high level of both masculine and feminine traits as conceptually defined for the Bem Sex-Role Inventory (Bem, 1974).

CHAPTER TWO

Review of the Literature

What follows is an outline of literature on theory and research in the area of body image. Studies relevant to the study being proposed are reported. These include studies on the relationships between body image and the variables of self-esteem and gender role identity. As well, relevant research and theory on adolescent development as it relates to body image and the mother-daughter relationship are outlined. Relevant research and theory are reported under the following sub-headings: relation of body image to self-concept; relation of body image to adolescent development; relation of body image to gender identity; and theoretical underpinnings underscoring the importance of the mother-daughter relationship. Results of previous studies are discussed in terms of their implications for the focus of this investigation.

Relation of Body Image to Self-Concept

The relationship between body image to self concept has been investigated in order to determine the relationships between body image and an individual's overall sense of self worth (Blyth et al., 1985; Petersen et al., 1984; Tobin-Richards et al., 1983). There is a great deal of research to support the contention that body image and self esteem are

correlated (Jackson et al., 1988; Jones & Mussen, 1958; Lerner, Orlos, & Knapp, 1976, McCauley, Mintz, & Glenn, 1988; Noles, Cash, & Winstead, 1985; Rosen & Ross, 1968; Secord & Jourard, 1953). For example, in a study which examined the relation of body image to self-esteem and depression-proneness in 176 male and female undergraduate students, McCauley et al. (1988) reported a strong positive correlation between body image and self-esteem in both men and women. In this study, higher levels of satisfaction with body were associated with higher levels of only one component of self-esteem, identified by the authors as social self-esteem. The researchers concluded that a more global measure of self-esteem would be indicated for future research.

This result is supported in a study which compared the association between body image and self-esteem in 40 middle-aged women (Van Rackley, Warren, & Bird, 1988). The study, which utilized a global measure of self-esteem, the Rosenberg Self-Esteem Scale (Rosenberg, 1965) revealed that women with higher self-esteem also reported higher levels of satisfaction with their body image.

The focus on body image in women in the investigation conducted by Van Rackley et al. (1988) reflects an interest among contemporary researchers in the gender differences that may exist in men and women's ratings of body image.

Studies have therefore attempted to establish the existence of such differences, and to examine their extent and nature. For example, Jackson et al. (1988) cite studies which indicated that compared to men, women evaluate their bodies less favorably, express more distress and dissatisfaction with weight, view appearance as more important, and perceive a greater discrepancy between ideal and actual body image (Cash, 1981; Franzoi & Herzog, 1987; Frazier & Lisonbee, 1960; Jackson et al., 1987, 1988; Lerner, Karabenick, & Stuart, 1973; Lerner et al., 1976; Noles, Cash, & Winstead, 1975; Winstead & Cash, 1984). In their investigation of gender, gender role identity, and body image, Jackson et al. (1988) reported that for female participants, higher self-esteem was associated with more favorable ratings on physical appearance, physical fitness, and the importance of physical health. While these relationships existed for male participants as well, females viewed physical appearance as more important than males.

A study which compared body image and attitudes toward weight in parents and children (Rozin & Fallon, 1988) revealed distinct gender differences in the responses of men and women. The researchers utilized 97 families, comprised of 97 mothers and fathers, with 55 daughters and 42 sons. Daughters and sons were college undergraduates. Self-report measures were administered to the sons and daughters and

their families. The authors reported that women demonstrated greater dissatisfaction with body image than men. As well, the authors found evidence of substantial differences between men and women in a comparison of five measures of attitudes toward weight and eating, with women reporting more concern with weight, greater guilt about eating, and more depression than their male counterparts.

While these studies provide evidence for the existence of a relationship between body image and self-esteem, and identify women as experiencing lower self-esteem and more negative body image than men, research evidence does not provide information on alternate factors which may be associated with this phenomenon. As well, longitudinal studies have not been conducted which may provide further evidence on the relationships between variables. As a result, conclusions of causality cannot be drawn based on the evidence available in current literature.

This collection of research indicates that an individual's sense of self, or self-esteem is related to their body image. Contemporary research also supports the argument that because women tend to place more importance on appearance, and to report more negative body image than men, their level of self-esteem will tend to be lower, or more negative, than the level of self-esteem reported by men who also report negative body image. Research therefore supports

the contention that the relationship of body image to self-esteem is particularly salient for women. Evidence obtained through research suggests that women tend to experience low self-esteem and correspondingly negative body image; however, the nature of this relationship is poorly understood. As a consequence, self-esteem is a relevant and critical component in any investigation of body image in women. To that end, the variable of self-esteem was included in this study.

Relation of Body Image to Adolescent Development

Body image has been investigated in both women and girls (Attie & Brooks-Gunn, 1989; Jackson et al., 1988). However, current research has indicated that adolescents in particular, undergo dramatic changes in their overall self-perceptions, including body image (Petersen et al., 1984; Rosenbaum, 1979; Tobin-Richards, Boner, & Petersen, 1983). The period of adolescence has thus been highlighted by many theorists as a critical phase in the development of body image.

Contemporary researchers have posited that a developmental model is appropriate in the study of body image, particularly at adolescence, when pubertal changes trigger "...a psychological state of crisis, a growth crisis necessitating change" (Rosenbaum, 1979, p.234). A

developmental approach to the study of body image requires that body image be studied in the context of the tasks confronted by individuals during adolescence (Attie & Brooks-Gunn, 1989; Blyth, 1985; Fabian & Thompson, 1989; Petersen et al., 1984; Rosenbaum, 1979; Strober & Yager, 1989; Tobin-Richards et al., 1983). Accommodation to the rapid physical changes at adolescence has been cited as a critical task of this phase of development (Blyth et al., 1985). Researchers have found that issues of body image and self-esteem are particularly salient at adolescence, when the adolescent is struggling to formulate an identity in the face of both physical and environmental changes (Fabian & Thompson, 1989; Petersen et al., 1984; Rosenbaum, 1979; Tobin-Richards et al., 1983).

It has been suggested that for both boys and girls, the changes in physical size and shape that occur at puberty trigger changes in body image and corresponding changes in levels of self-esteem (Attie & Brooks-Gunn, 1989; Reirdan & Koff, 1980; Rosenbaum, 1979). There is empirical evidence to suggest that like adults, adolescents demonstrate a correlation between self-esteem and body image, with those who evaluate their bodies highly reporting higher levels of self-esteem than those who report negative evaluations of their bodies (Jackson et al., 1988; Jones & Mussen, 1958; Lerner et al., 1976; Noles et al., 1985; Rosen & Ross, 1968;

Secord & Jourard, 1953). While these effects exist for both girls and boys, sex differences are apparent, with girls generally showing less satisfaction with their bodies and lower levels of self esteem than boys (Blyth et al., 1985; Clifford, 1971; Crockett & Petersen, 1987; Davies & Furham, 1986; Gove & Herb, 1974; Offer et al., 1982, Petersen et al., 1984; Simmons & Rosenberg, 1975; Simmons et al., 1973; Tobin-Richards et al., 1983).

To date, little research has been done on the effects of pubertal changes on the adolescent's psychological functioning. However, research does indicate psychological changes in pubertal adolescents, and suggests that these changes are different for boys than for girls. For example, a study conducted by Crockett & Petersen (1987) on adolescent boys and girls revealed that advancing pubertal status was associated with enhanced body image and improved mood for boys, but decreased feelings of attractiveness for girls. A similar finding was reported by Davies & Furnam (1986), who investigated body satisfaction in 182 girls aged 11-18 years. The study provided evidence to suggest that body satisfaction tended to decline during adolescence, and reported an association between negative body image and low self-esteem. Finally, a longitudinal study conducted by Blyth et al. (1985) on body image in 225 girls in early adolescence revealed a positive correlation between body

image and self-esteem. Interviews indicated that girls in junior high school reported particularly low self-esteem and negative body image. The authors speculated that this effect was due to extra stresses caused by changes in the school environment.

Fabian & Thompson (1989) investigated body image in 61 premenstrual and 60 menarchal girls in an attempt to identify factors which may contribute to eating disturbances. Their study explored relationships between the variables of accuracy of body size estimation, body esteem, self-esteem, depression, eating disturbance, and teasing experiences regarding appearance. The researchers administered self-report measures to the participants, and utilized an adjustable light-beam apparatus as a measure of size estimation accuracy. Correlational analyses revealed high correlations between body esteem (body image), self-esteem, depression, teasing, and eating disturbance. The authors therefore suggested that future research should explore these relationships further, particularly in the context of their ability to act as risk factors for the development of eating disorders.

For girls, puberty, and specifically the onset of menarche, has been pinpointed as a crucial time period in the development of body image (Attie & Brooks-Gunn, 1989; Fabian & Thompson, 1989; Koff et al., 1978; Rierdan & Koff,

1980; Rosenbaum, 1979). Adjustment to menstruation requires a process of integration of the girl's old self image with her new image, which in turn may have an impact on her sense of self: "the process of integrating changes in physical appearance and bodily feelings requires a reorganization of the adolescent's body image and other self representations" (Attie & Brooks-Gunn, 1989, p.71). For the researcher, this process requires attention to biological and cognitive changes. The impact of menarche, with its implications for sexual identity, can be viewed as a function of the interaction between situational and ontogenic factors (Petersen et al., 1984). According to this view, the relationships between these factors are crucial, and must be examined in any investigation of body image at adolescence.

Literature on adolescent development points out some of the difficulties adolescents typically experience as they attempt to adjust to pubertal changes. For example, Attie and Brooks-Gunn (1989) note that the onset of puberty causes a rapid accumulation of body fat in girls, precipitating dissatisfaction with body image, which in turn can result in the emergence of dieting behavior. Similarly, Steiner-Adair (1986) points out the dilemma girls often confront as their bodies undergo changes at puberty:

On the one hand, adolescence presents girls with the challenge of coming to terms with their adolescent

bodies; at the same time, society judges girls according to their looks and the culture encourages girls to change their body to fit a narrowly defined cultural ideal (p.100).

Girls at early adolescence are confronted with the stresses of the onset of puberty with all its accompanying implications, and have been demonstrated to show greater difficulties in functioning than adolescents at earlier and later stages of the life cycle (Golombek, Marton, Stein, & Korenblum, 1987).

In a three year longitudinal study of 63 adolescents, Golombeck et al. (1987) used a semi-structured interview to explore seven key personality functions which were derived from object relations theory. The seven functions identified were identity crystallization, maintenance of identity, relatedness, self-esteem, verbal communication, reality testing regarding self and others, and role assumption. The taped interviews were rated according to a Personality Functions Scale (Golombeck et al., 1987). Results of the study indicated that early adolescent boys and girls demonstrated greater difficulty in all areas of personality functioning as compared to older adolescents. Competence in all areas seemed to increase with age. The authors therefore identified early adolescence as a period of high stress, and speculated that this may be due to both the onset of

puberty, and to the adolescent's confrontation with significantly different role expectations.

It has been posited that girls at early adolescence are more preoccupied with body image compared to girls at other developmental stages; later adolescents having passed the period of rapid growth and having therefore been shown to demonstrate a more integrated body image. For example, Rierdan & Koff (1980) investigated body image in a group of 153 sixth-, seventh-, and eighth-grade girls through drawings of human figures. The authors reported that early adolescents are pre-occupied with individual body parts, while later adolescents demonstrate a more integrated and coherent body image. The researchers suggested that for early adolescents, changes in body parts have significance because they signal the onset of puberty and sexual maturity. They posit that later adolescents have experienced the physical changes, and are in the process of integrating these changes into their identities.

In a similar study which also utilized drawings of human figures as a measure of adolescent girls' body image, Koff, Rierdan, & Silverstone (1978) reported significant differences in the responses between premenstrual and menarchal participants. This investigation, which involved 87 seventh grade girls, reported that menarchal girls demonstrated a better articulated and defined body image

than the premenstrual girls. The authors therefore suggested that menarche is a pivotal event for the adolescent girl, requiring radical reorganization of body image. This research suggests that puberty, and the physical changes that occur as a result, have complex implications for adolescent girls' body image and self-esteem. As a result of their research, Rierdan & Koff (1980) and Koff et al. (1978) suggest that investigations of body image in adolescent girls must address differences among girls as a function of pubertal and menarchal status.

Delaney, Lupton, & Toth (1988) discuss our culture's distaste and denial of menstruation: "rather than celebrate the coming-of-age in America, we hide the fact of menarche, just as we are advised to deodorize, sanitize, and remove the evidence" (p.107). In interviews with parents and children, the authors discovered that girls were reluctant to discuss the topic of menstruation, and when they were willing to discuss their feelings regarding this topic, their comments indicated a sense of distaste and shame. Their investigation revealed that the implications of menstruation for sexuality and childbirth seemed less important to adolescent girls than the physical discomfort and menarche's influence on social life. They acknowledged the influence mothers have on their daughters' attitudes toward menstruation, but recognized that the negative

messages received through the media tend to have a far more powerful effect. Nonetheless, in their conclusion, Delaney et al. (1988) commend the efforts of several mother-daughter teams who are in the process of writing books and pamphlets for adolescents. The authors thereby emphasize the importance of the mother-daughter relationship, and state that society's attitudes towards menarche have acted as a barrier between mothers and daughters. For example, until recently, literature on menstruation has been dominated by manufacturers of sanitary products because, the authors state, "...ordinary women were too firmly in the grip of their society's taboos and their own ignorance to reach out collectively to their daughters" (p. 114).

This collection of research indicates that self-esteem and body image tend to become more negative at early adolescence compared to earlier and later phases of development. It has been hypothesized that this drop in self-esteem is due to the stressors of this period, which include entry into junior high school, the onset of puberty, the beginnings of heterosexual concerns, and the beginning of dating (Petersen et al., 1984).

In summary, literature on body image at adolescence indicates that self-esteem and body image are related; like adults, adolescents tend to report higher levels of self-esteem when they evaluate greater satisfaction with their

bodies (Jackson et al., 1988; Noles et al., 1985). As well, research has offered evidence that gender differences exist in body image and self-esteem. This research suggests that girls tend to report lower levels of self-esteem and less satisfaction with their bodies than boys (Petersen et al., 1984; Tobin-Richards et al., 1983). Finally, puberty, and for girls the onset of menarche has been pinpointed as a critical phase in the development of body image (Attie & Brooks-Gunn, 1989; Koff et al., 1978; Rierdan & Koff, 1980; Rosenbaum, 1979). Thus, research supports the argument that the relationship of body image to self esteem is particularly relevant for girls who are experiencing pubertal changes. In this study the researcher will therefore examine the relationship between self-esteem and body image in young girls in the time period surrounding the onset of menstruation.

Relation of Body Image to Gender Role Identity

The onset of menstruation can be viewed as a developmental marker: the adolescent girl experiences changes that signal the transition from girlhood to womanhood, and must begin to identify and integrate the meanings such change have for her. It has been suggested that the formation of identity at adolescence includes the crucial task of integrating physical changes with societal definitions and expectations (Attie & Brooks-Gunn, 1989;

Rosenbaum, 1979). This is a continuation of the process of gender role identification begun in early childhood. Gender role, the outcome of this process, is determined by the degree to which cultural definitions are integrated into an individual's self-concept (Bem, 1981). Bem has described this phenomenon as "the process by which society...transmutes male and female into masculine and feminine" (p.354).

Bem's (1981) gender schema theory is based on a cognitive-developmental model. Her theory proposes that sex-typing arises from schematic processing in which understanding is developed through the organization of new information based on pre-existing schema, or previous understanding. This process involves the assimilation of self-concept into gender-schema, which is then evaluated based on social definitions:

the child learns to evaluate his or her adequacy as a person in terms of gender schema, to match his or her preferences, attitudes, behaviors, and personal attributes against the prototypes stored within it. The gender schema becomes a prescriptive standard or guide...and self-esteem becomes its hostage (p.355).

Bem (1981) discusses the implications of this process in terms of the differences individuals demonstrate in the extent to which they utilize cultural definitions in their

assessments of their gender role identities. The author stresses that it is the process itself which is central to her theory, rather than the content of the gender schema:

Accordingly, sex-typed individuals are seen as differing from each other not primarily in terms of how much masculinity and femininity they possess, but in terms of whether or not their self-concepts and behaviors are organized on the basis of gender (p.356).

According to this theory, the manner in which an adolescent girl's gender role identity develops will be a function of the importance or weight she ascribes to cultural definitions. Accordingly her self-concept and self esteem will be influenced by the degree to which her physical and personal characteristics meet societal standards. Individuals will vary in their adherence to cultural norms; those who utilize cultural definitions to a high degree in their formation of gender role identity will presumably be influenced by these norms more than those who rely more heavily on personal or psychological factors. It is arguable, therefore, that an investigation into body image and self-esteem should include an exploration of gender role identity.

Literature on the relationship of gender role identity and self concept supports this argument (Jackson et al., 1988; Whitely, 1988). For example, it has been proposed that

gender and gender role are related; that is, women tend to report feminine traits as being more self descriptive than masculine traits, and men are more likely to identify masculine traits as being self-descriptive than are women (Jackson et al., 1988).

As well, research has indicated that masculine and androgynous men and women demonstrate higher levels of self esteem than their more feminine counterparts (Jackson et al., 1988; Whitely, 1983, 1988). The term "androgynous" is used to describe those who report high levels of both masculine and feminine traits.

For example, in an investigation of the relationships between gender, gender role identity, and body image, Jackson et al. (1988) administered self-report questionnaires to 166 undergraduate students (106 females and 60 males). The authors hypothesized that women who rate themselves as being feminine would have a more negative body image than their more masculine or androgynous peers, and would also consider their appearance to be more important than any other group. The researchers reported that feminine females demonstrated a more negative body image than women who rated themselves as masculine or androgynous. However, there were no differences among women in the importance they ascribed to physical appearance. In their discussion of results, the authors cited this finding as evidence of the

acceptance among contemporary women of cultural standards about the importance of appearance for women. They added that because the relationship between gender role identity and body image may be complex and mediated by a variety of other characteristics of the individual, future research should take a broader approach to include a variety of psychological and behavioral measures.

In a related study of 205 introductory psychology students, Whitley (1988) administered self report measures of self-esteem, including measures of traits and behavior, as well as sex role orientation. Data were analyzed using a multi-trait, multi-method matrix. The results indicated that gender role identity is related to self esteem, and links feminine gender role identity with lower self-worth.

There is also evidence to support the contention that gender role identity and self-esteem are related to body image. Research has been reported which suggests that for men, masculinity is related to body image satisfaction ratings, while for women, femininity is correlated with dissatisfaction with body image and concern with weight (Hawkins et al., 1983; Jackson et al., 1987, 1988; Kimlicka et al., 1983; Winstead & Cash, 1984). For example, Hawkins et al. (1983) administered self-report questionnaires to a total sample of 361 undergraduates in order to investigate the relationship of weight concerns to gender role identity.

They reported that for women, femininity was positively correlated with dieting tendencies, and that dissatisfaction with body, negative body image, was associated with low self-esteem.

Based on existing research, it is arguable that women who are highly gender typed, that is, women who describe themselves as having traits typically associated with femininity, are more likely to report negative body image and low self-esteem. While there is a paucity of research which investigates the relationship of gender role identity and self-esteem in adolescents, it is reasonable to speculate that the relationships evident in the research on adults may also exist for adolescents. Evidence from research on adolescent development which emphasizes the importance of social influences and relationships in identity formation, particularly for girls (Thorbecke & Grotevant, 1982) adds credence to this argument.

Although the majority of research on gender role identity has been conducted with adult participants, the literature on adolescent development offers both theoretical and empirical perspectives on the significance this variable at adolescence. For example, research on adolescence suggests that the process of establishing gender role identity is a critical component of overall identity formation (Golombeck, Marton, Stein & Korenblum, 1987;

Jackson, Ialongo, & Stollak, 1986; Kamptner, 1988; Rosenbaum, 1979). Developmental theorists such as Erickson (1968) have proposed that at adolescence, a key task is the formation of an overall sense of identity, which consists of a variety of components. In her discussion of female adolescent development, Rosenbaum (1979) utilizes the framework offered by Blos (1967) to identify four major challenges or tasks of adolescence: individuation and separation, ego-continuity, coping with residual trauma, and sexual identity. The author describes sexual identity as the process by which the adolescent comes to integrate mature sexual functioning into the sense of being female or male. The physical changes that signal sexual maturation thus trigger a process of structuring social definitions of femininity or masculinity into overall identity. Resolution of this task will result in the establishment of gender role identity.

Research on adolescent development has identified gender differences between adolescent girls and boys in terms of the ways in which they address issues of identity (Kamptner, 1988; Jackson et al., 1986; Thorbecke & Grotevant, 1982). The component of gender role identity, in particular, has been identified as an area of difference between boys and girls. For example, in a study of 41 male and 42 female adolescents involving interviews and self-

report measures, Thorbecke & Grotevant (1982) reported the finding of an interrelationship between occupational and interpersonal domains for girls. That is, for girls, interpersonal variables, such as self-esteem, were found to be related to occupational interests and aspirations. A similar finding was not revealed for boys. The authors posit that this result may be due to the conflicts in gender roles which exist for contemporary girls. That is, the establishment of gender role identity is problematic for girls because they are currently being socialized for marriage and motherhood while simultaneously being encouraged to seek career goals. The authors posit that because traditional social definitions of femininity are being questioned in the absence of the formulation of new definitions, the acquisition of gender role identity is particularly difficult for the contemporary adolescent girl.

In summary, this collection of research provides further evidence for the argument that for women, self-esteem and body image appear to be related, with low self-esteem being related to negative body image (Jackson et al., 1987, 1988; Kimlicka et al., 1983; Winstead & Cash, 1984). This research also provides evidence which suggests a link between gender role identity and body image by reporting that for women, perceptions of femininity tend to be related to negative body image (Jackson et al., 1987, 1988; Kimlicka

et al., 1983; Winstead & Cash, 1984). Based on research cited previously (Jackson et al., 1987, 1988; Kimlicka et al., 1983; Winstead & Cash, 1984) it would seem reasonable to argue that the variable of gender role identity may be an important component of body image, particularly for girls at puberty. In this study therefore, relationships between self-esteem, body image, and gender role identity were examined in adolescent girls in the months preceeding and following the onset of menarche.

Theoretical Underpinnings Underscoring the Importance of the Mother-Daughter Relationship

Research on adolescent development has reinforced the importance of family relationships in the formation of identity for adolescent girls (Holmbeck & Hill, 1986; Isberg et al., 1989; Kamtner, 1988; Leaper, Hauser, Kremen, Powers, Jacobson, Noam, Weis-Perry, & Follansbee, 1989). It has been reported that parenting styles characterized by warmth and acceptance serve to enhance the identity formation process at adolescence for both boys and girls (Coopersmith, 1967; Gecas, 1972; Isberg, Hauser, Jacobson, Powers, Noam, Weis-Perry, & Follansbee, 1989; Kamptner, 1988; Macoby & Martin, 1983; Rosenberg, 1965). However, gender differences in both the nature of the relationship, such as the level of intimacy, and its impact on identity have been noted. Researchers have identified the relationship between mothers

and daughters as being the strongest predictor of the self-esteem of adolescent girls (Holmbeck & Hill, 1986; Leaper et al., 1989; LeCroy, 1988; Offer et al., 1982). For example, in an investigation into the impact of parent-adolescent intimacy on adolescent functioning involving 85 adolescents (LeCroy, 1988), analysis of data obtained through self-report measures revealed that mothers received higher ratings on intimacy than fathers, and the level of parental intimacy was positively correlated to adolescent self-esteem, particularly for girls.

In a related study, Holmbeck & Hill (1986) employed a path-analytic model to investigate the relationships between parent-reported instrumental and expressive traits, child-reported parental acceptance, and adolescent self-esteem and self-consciousness in 159 sixth and seventh graders and their families. The researchers identified the mother-daughter dyad as the relationship in which the strongest correlations occurred. They reported that for mothers and daughters, maternal expressiveness was predictive of child-reported maternal acceptance; acceptance, in turn was reported to be predictive of self-esteem for daughters.

A similar result was reported by Offer et al. (1982) in their study of family perceptions of adolescent self-image. The researchers administered self-report measures to 241 adolescents and their parents in an effort to examine the

relationships between adolescents' self-image and the perceptions of the adolescents held by their parents. The authors reported that mother-child congruence of perception was more highly correlated with adolescent self-image than father-child congruence. In addition, the study revealed that daughters' self-image was more highly associated with parent-child agreement than was sons'.

In a study which explored family communication patterns, Leaper et al. (1989) examined the psychosocial changes occurring at adolescence from the perspective of gender role socialization. This study involved 32 adolescent boys and girls aged 14-15 years from two parent middle- and upper-class families. Participants and their parents were asked to engage in a discussion of moral dilemmas. Their responses were then coded using the Constraining and Enabling Coding System. The results of the study indicated patterns of communication which suggested that separation from parents occurred more often with conformist sons and non-conformist daughters, while closeness with parents occurred more often with conformist daughters and nonconformist sons. The authors posit that developmental changes in relationships are different for females and males, with emphasis on autonomy for boys and intimacy for girls. "The challenge of psychosocial development can thus be viewed as a search for both individuality and communion,

to balance one's striving for autonomy and one's need for interpersonal connections" (Leaper et al., p.336). The results of the study suggest that parents treat sons and daughters differently. For example, unlike interactions between fathers and sons or mothers and sons, mother-daughter communications are characterized by closeness and intimacy. Traditional or sex-typed maternal communications were found to predict daughters who were considered to be in the conformist level of Loevinger's (1976) model of ego development. This level is characterized by "...a group centered orientation in which external rules and social acceptability are guiding principles" (Leaper et al., p.338). Results of this study suggest that the nature of parent-child interactions may have a significant impact on the child's attitudes and behavior. As well, results indicate that traditionally gender-typed mothers tend to have daughters who are similarly invested in adherence to societal standards of appropriate gender-based behavior.

In a study which investigated the relationships between parents' gender role identities and those of their children, Jackson et al. (1986) surveyed 184 undergraduates and their parents using self-report measures. A regression analysis of the data identified maternal femininity as a strong predictor of femininity for daughters. This study did not include adolescent participants; however, it is possible

that these results could be extrapolated to a younger population. Further research is therefore indicated in this area.

The nature of the mother-daughter relationship itself has also come under investigation. For example, daughters who perceive mothers as affectionate and accepting have been reported to score higher on measures of self-esteem (Holbeck & Hill, 1986; Offer et al., 1982). In a study involving 67 married women aged 28-38 years, Sholomskas and Axelrod (1986) found that women who perceived their relationships with their mothers as loving and accepting scored higher on self-esteem and role satisfaction measures.

Further, there is evidence that daughters who report high levels of affection and identification with their mothers show a corresponding high level of intimacy with peers (Gold & Yanof, 1985). In this study the researchers administered questionnaires to 134 high school girls in an effort to examine the relationship between the mother-daughter relationship and peer relationships. The researchers reported a significant relationship between mother-daughter relationships characterized by affection, identification, and democratic treatment and peer relationships characterized by intimacy and mutuality.

There is also evidence to suggest that the mother-daughter relationship undergoes changes according to the

daughter's menarchal status. For example, Hill et al., (1985) identified the period directly following the onset of menarche as a time of heightened stress between mothers and daughters. This investigation analyzed data obtained through observation and questionnaires from 62 mother-daughter and 61 father-daughter dyads. Results indicated that daughters reported the perception that mothers were less accepting than they were before menstruation began. Menarchal daughters also reported that they were less influenced by mothers, and did not participate in family events as frequently. It is arguable that for girls, relationship with mother may be a primary context in which developmental tasks are undertaken, and this relationship may therefore be a powerful factor in the daughter's personal development.

Contemporary developmental theory supports the notion that the mother-daughter relationship is a critical factor in the formation of gender identity for an adolescent girl (Miller, 1976; Rubin, 1983). Current literature on adolescent development reflects differences among developmental theorists in their conceptualizations of developmental processes. For example, traditional developmental theorists have proposed that the tasks of adolescent development include cognitive shifts from concrete operations to utilization of reflective thought and propositional logic, increasing physical and psychological

autonomy, and the evolution of a stable and cohesive self-structure (Strober & Yager, 1989). This view of development as an evolution toward greater separateness and autonomy has been criticized by feminist theorists on the grounds that it does not take into account the experiences and life views unique to women (Gilligan, 1982; Miller, 1976, 1983; Steiner-Adair, 1986; Surrey, 1985; Rubin, 1983).

In her discussion of a developmental model for women, Miller (1983) posits that the models put forward by theorists such as Erikson (1950) and Levinson (1978), with their emphasis on development of self through separation-individuation do not describe women's experiences adequately. She argues that for women, development of self occurs in the context of relatedness to others. According to this theoretical perspective, interactions with others, particularly mother, are hypothesized to form the structure within which a woman's self concept evolves. Thus, it is within the context of relationships that a woman develops her sense of herself. Her various roles such as mother, friend, co-worker, or daughter and the relationships she experiences within these roles, provide her with critical information on her identity, and allow her to locate herself within her environment.

Rubin (1983) examines differences in the process of identity formation between boys and girls from the

perspective offered by object relations theory. According to this theoretical perspective, the mother-offspring relationship is critical to development, as it forms the foundation on which self concept and gender identity are built. The mother-child relationship is identified as being critical because, in most societies it is a woman, and most often the mother who acts as the child's primary caregiver. Rubin argues that for boys, a sense of gender identity arises from the recognition as a small child that he is different from mother, and must separate from her and identify himself with father if he is to form and maintain an independent sense of self. This process requires that he set rigid boundaries between himself and mother. Once these boundaries are in place, they serve to facilitate his movement toward greater autonomy, and set the tone for all future relationships .

For girls however, this process of gender role identity formation through separation is not considered necessary, because mother is not different from daughter (Rubin, 1983). Therefore, the process of gender role identity formation is more ambiguous; the young girl need not wrench herself from her relationship with mother, and as a result, does not develop the rigid ego boundaries characteristic of young boys. Rubin discusses the implications of this pattern of development for women:

The context within which separation takes place and identity is forged means a girl never has to separate herself as completely and irrevocably as a boy must. Her sense of herself, therefore, is never as separate as his; she experiences herself always as more continuous with another; and the maintenance of close personal connections will continue to be one of life's essential themes for her. (pp. 58-59)

For a girl then, relationship with mother is viewed as being critical for two reasons. First, it is critical because it serves initially to shape her sense of gender role identity and her manner of relating to others. Second, because a girl does not separate completely from her mother, her process of identity formation at adolescence will be a continuation of the process begun in early childhood, whereby interaction with mother serves as the context within which her development occurs.

Proponents of the self in relation model of development echo this theoretical perspective (Miller, 1983; Surrey, 1985). These theorists argue that for an adolescent girl, self worth develops in the context of her relationships with family and peers: "the girl's sense of self-esteem is based in feeling that she is a part of relationships and is taking care of the relationships" (Miller, 1983, p.5). For a woman, the struggle at adolescence may not be toward greater

autonomy; instead, the adolescent girl attempts to retain her sense of herself as "being-in-relationship" (Miller, 1983, p.9) without losing her sense of agency within her relationships. Miller (1983) emphasizes that the young girl's understanding of "being-in-relationship" does not imply dependency; instead, relationship involves mutual caretaking, flexibility, and growth.

In her discussion of the nature of the mother-daughter relationship, Surrey (1985) posits that through her relationship with her mother, a girl develops the expectation that the mutual sharing of experiences will lead to psychological growth, and thus that psychological connection will enhance the development of her self concept. Therefore, for both mothers and daughters, "self esteem...is related to the degree of emotional sharing, openness, and a shared sense of understanding and regard" (p.6). Because the relationship between mother and daughter involves mutual sharing and openness, the process of development of identity through connection is considered to be reciprocal. Thus, the self concepts of mothers, as well as daughters, are reciprocally affected.

According to this model of development, both mother and daughter create and are affected by the quality of their relationship. Thus, a daughter's body image may be affected by her mother's attitude toward her body. However, because

the relationship is reciprocal, a mother's body image may be equally affected by the attitudes of her daughter. Surrey (1985) notes that:

The ability to move and change in relationship clearly depends on the capacities and willingness of all people involved to change and grow, not just the child. Since this growth is interactional, it is often difficult to see who "leads" or "initiates" this process (p.8).

This theoretical perspective is valuable as a context to investigate the relationships of body image for mothers and daughters, within the context of a reciprocal and dynamic process.

Reinforcing the concept of reciprocity, there is evidence to suggest that the dynamics of the mother-adolescent daughter relationship are intensified as the mother copes with both her own identity in mid-life, as well as her changing role as a mother of an increasingly adult daughter. For example, in a study of parent-adolescent interactions, Silverberg & Steinberg (1987) interviewed and surveyed individual members of 129 intact families. Their results demonstrated that mothers report more intense midlife identity concerns and lower self-esteem when they have daughters who are more physically mature. This research suggests that both mothers and daughters are affected by the daughter's developmental status.

La Sorsa & Fodor (1990) support this position, arguing that both mother and adolescent daughter are experiencing a developmental crisis of separation and self-definition:

Separation and self-definition are two of the main developmental tasks for the adolescent daughter as well as for her mid-life mother. The specific dynamics of the mother-daughter relationship serve to complicate the achievement of these developmental tasks. The fact that the adolescent daughter and the mid-life mother are both confronting these challenges simultaneously can either enhance or diminish each other's attempts towards mastery and growth. (p. 600)

The authors argue that the period of adolescence appears to intensify the mother/daughter relationship, and may require shifts in self-definition for both the daughter and the midlife mother.

According to LaSorsa & Fodor (1990), the period of the daughter's adolescence may involve a parallel process of reassessment of both individual identity and the relationship itself. For the daughter, puberty and the accompanying physical changes triggers a process of renewed identity formation; issues of sexuality, independence, responsibility, and career must be addressed. For the mother, the daughter's development has implications for many, if not all, aspects of her life. For example, midlife

signals physical changes, including weight gain, wrinkled skin, increased health concerns and often, menopause. The beginning of the daughter's menstrual cycle may therefore signal the end of the mother's. The mother must then struggle with the issues surrounding her own sexuality, as well as that of her daughter's. As well, the daughter's increasing independence often allows her mother greater freedom; time to reassess career goals, perhaps leading to the return to school or changes in her current job status. Finally, because this is an interactional process, the developmental processes of mother and daughter appear to be influenced, and to a certain extent, mediated by each other. The relationship itself must be redefined; issues of separation, boundaries, competition, and rebellion arise (La Sorsa & Fodor, 1990). The authors argue that in order to address these issues, contemporary theory and research requires a dyadic interactional model, with a cognitive-developmental perspective.

In addition, as discussed previously, there is evidence to suggest that mothers who demonstrate traditional gender-typed characteristics have daughters who place a high value on societal standards (Leaper et al., 1989). It would seem reasonable to assume, therefore, that there may be an interaction between a mother's self-esteem and gender role

identity and the self-esteem and gender role identity of her daughter.

As well as focussing on gender role identity, contemporary research reflects an interest in other aspects of sociocultural influences on body image. For example, Western society's current standard of thinness, along with its emphasis on youthfulness, is often included in discussions of the etiology of body image dissatisfaction among women, particularly in relation to eating disorders. (Attie & Brooks-Gunn, 1989; Garner et al, 1980; Steiner-Adair, 1986; Wooley & Wooley, 1985).

Wooley & Wooley (1985) link cultural influences to negative body image, and discuss the implications of societal standards for mothers and daughters. The authors argue that because cultural standards are transmitted through the family, a mother's distress caused by her failure to meet impossible cultural standards will affect her daughter's body image. For example, these authors contend that a mother's preoccupation with her body and eating behavior may have a profound effect on her interactions with her child. They conclude that "...the most probable assumption is that the process of feeding is marked by inconsistency and is greatly emotionally charged" (p.399). The authors cite a study conducted by Debs et al. (1983) as an illustration of their position. This study, in

which college women were surveyed, found that the strongest predictor for bulimia (after self-evaluation), was the daughters' belief that her mother was critical of her daughter's body.

In a related study, Steiner-Adair (1986) tested her hypothesis that eating problems were tied to female adolescents' perceptions of cultural values that make it difficult for girls to integrate and value relationships as they develop. The researcher utilized self-report measures and a clinical interview in her investigation of 32 girls aged 14-18. The results of this study indicate a tendency for women who accept cultural standards without question to associate thinness with autonomy, success, and recognition for achievement. Steiner-Adair argues that the perception of a connection between autonomy, success, and thinness places girls and women at increased risk of eating disorders:

It is a vision of autonomy and independence which excludes connection to others and a reflective relationship to oneself...In this light, it is possible that eating disorders emerge at adolescence because it is in this point of development when females experience themselves to be at a crossroads in their lives where they must shift from a relational approach to life to an autonomous one, a shift that can represent an

intolerable loss when independence is associated with isolation. (p.107)

Wooley & Wooley (1985) posit that dissatisfaction with body may lead to dieting by the daughter, which the authors identify as a common precursor to eating disorders. The authors contend that dieting by the daughter may serve to enhance her identification with her mother, while simultaneously differentiating herself by assuming control over her body.

In a two-year longitudinal study Attie & Brooks-Gunn (1989) investigated maternal body image, eating patterns and attitudes, depression, and family systems and relationships as possible predictors of eating problems in adolescent girls. Their study involved the administration of self-report measures to 193 adolescent girls and their mothers. Participants were contacted two years after initial contact, and questionnaires were re-administered. Regression analyses revealed that of the variables under investigation, family characteristics was the only significant predictor of daughters' eating concerns (9%). Mothers' scores on eating patterns approached significance as a predictor of daughters' eating concerns ($p < .10$). Maternal body image was not identified as a significant predictor of daughters' eating difficulties. The study did not attempt to compare daughters' body image scores directly with those of their

mothers. It did, however, identify daughters' body image as the most powerful predictor of eating problems.

This position is supported in a study conducted by Rozin and Fallon (1988). These researchers administered questionnaires to 97 families, related to body image satisfaction and concern with weight. Results indicated that significant differences appeared between opposite-sex pairs (ie., father-mother, son-daughter), while mothers and daughters reported similar concerns. In their comparison of eating attitudes and body image among mothers, fathers, sons, and daughters, Rozin & Fallon found that mothers and daughters resembled each other in their concerns about body image and eating, while fathers, although dissatisfied with weight, did not show the same concern or distress. The researchers concluded that gender is a much better predictor of body image attitudes than is generation. Although not conclusive, this study provides further evidence of females' greater reported dissatisfaction with body than males', and suggests that these patterns exist within the context of, and may be perpetuated by mother-daughter interactions.

In summary, literature on female adolescent development has identified the mother-daughter relationship as a key component in the development of daughters' identity, and in particular, self-esteem (Holmbeck & Hill, 1986; Leaper et al., 1989; LeCroy, 1988; Offer et al., 1982). Research has

also identified puberty, and specifically, the onset of menarche as being pivotal for the daughter's identity formation (Hill et al., 1985; Koff et al., 1978; Petersen, 1988; Rierdan & Koff, 1980). Physical changes that accompany puberty and the onset of menstruation may trigger a process of re-definition of identity for both mother and daughter and necessitate the restructuring of the relationship itself (La Sorsa & Fodor, 1990). Therefore, research has identified the mother-daughter relationship as a primary context in which developmental tasks are addressed (Hill et al., 1985; LaSorsa & Fodor, 1990; Silverberg & Steinberg, 1987; Wooley & Wooley, 1985).

The concept of reciprocity between mother and daughter is supported by object relations theory (Rubin, 1983). According to this theoretical model, identity formation at adolescence is a continuation of a process begun in infancy, wherein infants identify themselves in terms of their relationships with their mothers. For girls, puberty, and specifically the onset of menarche may cause an intensification of this process. Issues of gender role identity and body image may become particularly salient as the girl becomes increasingly physically mature. As well, daughters' physical maturity may have implications for both mother and daughter, who must then address issues of separation and individuation (Attie & Brooks-Gunn, 1989;

Hill et al., 1985; LaSorsa, 1990; Thorbecke & Grotevant, 1982). Finally, gender role identity, self-esteem and body image in mothers and daughters may be influenced or mediated by societal definitions of femininity; definitions which are currently in flux (Rozin & Fallon, 1988; Steiner-Adair, 1986; Wooley & Wooley, 1985). As such, the responses of both mothers and their adolescent daughters on the measures of self-esteem, gender role identity, and body image were included in this investigation.

Conclusion

Literature on both adult women and adolescent girls suggests a relationship between body image and self-esteem (Attie & Brooks-Gunn, 1989; Jackson et al., 1988; Petersen et al., 1984; Tobin-Richards et al., 1983). Studies investigating gender differences in body image suggest that for women, there is a tendency for low self-esteem to be related to negative body image (Cash, 1981; Franzoi & Herzog, 1987; Frazier & Lisonbee, 1960; Jackson et al., 1987, 1988; Lerner et al., 1973, 1976; Noles et al., 1975; Winstead & Cash, 1984). Because studies of these variables have been correlational in nature, conclusions of causality cannot be drawn.

Research on adolescent development has indicated that for girls at puberty, the relationship of body image to self-esteem may be particularly salient, with a tendency for

low self-esteem to be associated with negative body image (Attie & Brooks-Gunn, 1989; Petersen, 1988; Rosenbaum, 1979). The onset of menarche has been identified as being pivotal for the adolescent girl, in terms of overall identity formation, and specifically for body image (Attie & Brooks-Gunn, 1989; Fabian & Thompson, 1989; Koff et al., 1978; Rierdan & Koff, 1980). Investigations of body image at adolescence should therefore focus on the time period directly surrounding the onset of menstruation so that the effects of this variable may be better understood.

Research on adolescent development also suggests that the onset of menarche triggers a process of the establishment of gender role identity, a key component of overall identity (Bem, 1981; Hill et al., 1985; La Sorsa & Fodor, 1990). Theory on adolescent development suggests that the onset of menarche has critical implications for the adolescent girl, as it signals her transition from girlhood into mature womanhood. As a result, issues of social definitions of masculinity and femininity must be addressed and integrated into overall identity (Rubin, 1983; La Sorsa & Fodor, 1990).

Literature on adolescent development therefore suggests that issues of self-esteem, body image and gender role identity are critical variables in identity formation. In

addition, for girls, the onset of menarche has been identified as a pivotal event in this process.

Further, because theory and research suggest that the mother-daughter relationship may be the primary context for a girl's development, it is arguable that this relationship may be a critical variable in understanding the relationships between body image, self-esteem, and gender role identity (Hill et al., 1985; La Sorsa & Fodor, 1990; Miller, 1976; Rubin, 1983). It has also been suggested that both mothers and daughters are affected by socio-cultural influences such as gender role prescriptions and cultural standards for thinness (Rozin & Fallon, 1988; Wooley & Wooley, 1985). The impact of societal prescriptions for appearance and behavior on adolescent body image should therefore be investigated in the context of the reciprocal dynamic interactions between mothers and daughters.

In order to address these issues, variables of body image, self-esteem, and gender role identity were examined in adolescent girls and their mothers. This approach made possible the independent examination of relationships between variables for mothers and daughters, as well as an investigation of the associations between mothers and daughters on these relationships.

Statement of the Hypothesis

In attempting to provide clinicians and theorists in the field of adolescent development with information on the relationships between the criterion variable, body image, and the predictor variables, gender role identity and self-esteem, the following hypotheses were generated.

Hypothesis I

A) Menstrual daughters' self-esteem scores on the Rosenberg Self-Esteem Scale do not significantly predict daughters' body image, as measured by the Body Image subscale of the Self-Image Questionnaire for Young Adolescents (SIQYA).

B) Menstrual daughters' gender role identity scores on the Bem Sex-Role Inventory (BSRI) do not significantly predict daughters' body image, as measured by the SIQYA.

Hypothesis II

A) The self-esteem scores of mothers of menstrual daughters on the Rosenberg Self-Esteem Scale do not significantly predict mothers' body image scores, as measured by the SIQYA.

B) The gender role identity scores of mothers of menstrual daughters on the Bem Sex-Role Inventory (BSRI) do not

significantly predict mothers' body image scores as measured by the SIQYA.

Hypothesis III

For mother/menstrual daughter pairs, mothers' body image scores on the Body Image subscale of the Self-Image Questionnaire for Young Adolescents (SIQYA) do not significantly predict daughters' body image scores as measured by the SIQYA.

Hypothesis IV

A) Pre-menstrual daughters' self-esteem scores on the Rosenberg Self-Esteem Scale do not predict daughters' body image scores as measured by the SIQYA.

B) Pre-menstrual daughters gender role identity scores on the Bem Sex-Role Inventory (BSRI) do not significantly predict daughters' body image scores as measured by the SIQYA.

Hypothesis V

A) The scores of mothers of pre-menstrual daughters on the Rosenberg Self-Esteem Scale do not significantly predict mothers' body image scores as measured by the SIQYA.

B) The gender role identity scores for mothers of pre-menstrual daughters on the Bem Sex-Role Inventory (BSRI) do not significantly predict body image scores as measured by the SIQYA.

Hypothesis VI

For mother/pre-menstrual daughters, mothers' body image scores on the Body Image Subscale of the Self-Image Questionnaire for Young Adolescents (SIQYA) do not significantly predict daughters' body image scores as measured by the SIQYA.

CHAPTER THREE

Methodology

Participants

A total sample of 113 mother/daughter pairs, or 226 participants was utilized in the present study. A total of 442 questionnaire packages were distributed. One hundred and twenty nine packages were returned to the researcher. Of these, 16 were eliminated from the study. The majority of these ($n = 11$) were eliminated because only one member of the mother-daughter pair completed the questionnaires. Two packages were returned with incomplete responses from both mother and daughter, and three were returned long after the data had been analyzed. The response rate was therefore calculated to be 28.5 %.

The total sample was divided into two samples: a first sample of 82 mother/daughter pairs, which consisted of mother/daughter pairs in which the daughters had begun menstruating within the previous 36 months, and a second sample of 32 mother/daughter pairs, in which the daughters were pre-menstrual. The first sample were referred to as Sample I and the second sample, Sample II. Criteria for inclusion of daughters were as follows:

- 1) Girls aged 11-14 years were targeted because the mean age of onset of menstruation in Western countries is 12.5 years (Tapley, Morris, Roland, Weiss, Subak-Sharpe, & Goetz, 1989). Sample 1 girls were requested

to have experienced their first menstruation in the 36 months preceding the study, to ensure that they were experiencing pubertal changes, and corresponding changes in body image at the time of the study. The period of 36 months was specified in order to provide a range of time after onset of menarche for menstrual periods to be experienced on a regular monthly basis.

2) it was required that all participants were not under psychiatric care, and that they were not under the influence of mood altering medication, to alleviate potential distortion of the data caused by medication, or psychiatric illness.

3) it was required that the family had not undergone transition or trauma caused by divorce, major illness, or death of a family member at the time of study, to ensure that responses were not likely to be influenced by other traumatic life circumstances.

Mothers were required to meet criteria numbers 2 and 3. Object relations theory places emphasis on the nature of the relationship between mother and daughter beginning in infancy and continuing through adolescence (Rubin, 1983). Mothers were therefore required to have lived with the daughter since birth, in order to ensure that the sample was homogeneous in terms of early family constellations. Consistent with object relations theory, it was viewed as

important that mothers and daughters had co-habitated for the majority of the child's life. The study therefore did not require participant mothers to be the biological mothers of the daughter participants, and no requirement was made that the mother-daughter pair be living in an intact family setting.

Demographic information on the characteristics of the samples was obtained through the use of two experimenter-generated "Demographic Questionnaires". The first was designed for mothers (see Appendix A) and the latter for daughters (see Appendix B). Information on the mothers and daughters in Sample I will be reported first (see Table 1), followed by information on mothers and daughters in Sample II (see Table 2).

Sample I

Mothers:

Mothers in Sample I ($N = 82$) ranged in age from 32 to 55 years, with a mean age of 42.7 years ($SD = 4.31$). Height for mothers in both samples ranged from 59 to 70 inches, with a mean height of 64.75 ($SD = 2.17$), while weight ranged from 95 to 250 pounds, with a mean weight of 136.4 pounds ($SD = 24.3$).

The educational level of the mothers who participated

TABLE 1
Sample I

Means and Standard Deviations for Demographic
Characteristics of Mothers and Daughters

	Mothers		Daughters	
	M	SD	M	SD
age (years)	42.7	4.31	13.4	1.12
height (inches)	64.75	2.17	64.5	2.63
weight (pounds)	136.44	24.26	114.5	14.82
grade	---	---	8.64	1.01
age of 1st. menstruation (years)	---	---	12.09	.897
n = 82 pairs				

Table 2
Sample II

Means and Standard Deviations for Demographic
Characteristics of Mothers and Daughters

	Mothers		Daughters	
	M	SD	M	SD
age (years)	44.86	4.98	12.52	.962
height (inches)	65.16	2.54	61.52	4.45
weight (pounds)	136.26	19.48	99.69	11.84
grade	---	---	7.80	.792
age of 1st. menstruation (years)	---	---	---	---
n = 31 pairs				

in the study was relatively high, with only 1.2% of the sample reported having completed elementary school, 36.6% completing high school, 22.0% completing college, 24.4% completing university, and 14.6% completing graduate studies. In terms of employment status, the majority of mothers (70.7%) were active in the work force. Of this 70.7%, 32.9% worked full-time and 37.8% worked part-time. In addition, 24.4% of mothers reported their primary occupation as homemaker, and 4.9% reported being unemployed. The most frequently reported occupations were in the fields of health (15%), and education (15%). Participants reported a wide diversity of occupations, including areas such as business, design, foreign service, and creative pursuits such as writing. Of the total sample, 57.3% of mothers reported having been employed in the first five years of their daughters' lives, while another 41.5% reported that they were not employed during that time. Of the total sample, 1.2% of mothers did not respond to this question.

When asked to report family income, 70.7% of mothers classified their families as having a total income which exceeded \$46,000 per year. Another 12.2% placed their total family income in the \$36,000 - \$45,000 per year category. Of the total sample, only 6.1% reported their family income as being less than \$25,000 per year, with most women in this category being single parents. Eighty six percent of mothers

reported that a father lived in the home, while 13.4% reported that a father did not live in the home. However, participants were not asked to specify if the family was intact or blended. Stepdaughters who were not included in the study were reported by 1.2% of mothers, and stepsons by an additional 1.2%. Daughters included in the study were not reported to be step-daughters by their mothers.

Twenty-nine percent of mothers claimed that they participated in an organized religion on a regular basis, while 69.5% did not participate. Religious affiliation was reported as follows: 53.7% Christian, 40.2% Agnostic, 3.7% Hindu, 1.2% Muslim and 1.2% Jewish. Frequency of participation ranged from at least 4 times per month (17.1%) to never (51.2%). Participation in an organized religion at a rate of 1-2 times per month was reported by 12.2% of mothers, while 3.7% reported participating 3-6 times per year, and 15.9% reported participating 1-2 times per year.

The most frequently reported ethnic heritage for mothers was classified as Western European (56.1%). This classification included European countries such as England, Holland, Sweden, France, and Italy. For daughters the ethnic classification reported most frequently was Western European (45.1%).

When asked whether their family situation had changed in the two to three years preceding the study, 80.5% of

mothers responded in the negative, while 19.5% responded that there had been changes. When asked to describe the types of changes that had occurred, responses varied from death of grandparents (8.5%) to addition of a family member, such as the birth of a child (1.2%) or the arrival of a nephew to live in the home (1.2%). Divorce, separation, and/or re-marriage was reported by 8.5% of the respondents. Because these respondents stipulated that the changes had occurred beyond the time limits established in the criteria for inclusion in the study, these participants were therefore included in the study.

Daughters:

Daughters in Sample I ($N = 82$) ranged in age from 11 to 16 years, with a mean age of 13.42 years ($SD = 1.12$). School grade level ranged from grade 7 to grade 11, with a mean grade of 8.65 ($SD = 1.01$). Height ranged from 56 to 70 inches with a mean of 64.5 ($SD = 2.6$), and weight ranged from 82 to 150 pounds, with a mean of 114.5 pounds ($SD = 14.8$).

Daughters' religious orientation (as reported by the mother) was similar to their mothers'. For example, 32.9% of daughters were reported to participate in a religious organization on a regular basis, while 67.1% did not. As well, daughters' religious affiliation was reflective of that of their mothers' with 50% reporting Christian, 43.9%

Agnostic, 3.7% Hindu, and 1.2% each for Muslim and Jewish. Frequency of participation for daughters was only slightly higher than for mothers. For example, 22.0% of daughters were reported to attend a religious organization at least four times per month, as compared to 17.1% for mothers.

For daughters in Sample 1, the age of onset of menstruation ranged from 10 to 15 years, with a mean of 12.1 (SD = .89). Daughters in this group reported to have been menstruating for a period of time that ranged from 6 to 36 months, with a mean of 9.46 months.

Sample II

Mothers

Mothers in Sample II (N = 31) had a mean age of 44.86 years (SD = 4.98). Age ranged from 36 to 57 years. Mean height for this sample was 65.16 inches (SD = 2.54) with a range of 60 to 70 inches, and mean weight was 136.26 pounds (SD = 19.48), with a range of 95 to 190 pounds. Educational level was reported to range from high school (32.3%) to graduate studies (25.8%). Approximately one quarter of mothers reported to have completed college (25.8%), and 16.1% completed university.

Current employment status was reported as follows: 29.0% full-time, 32.3% part-time, 32.3% homemaker, and 3.2% unemployed. A small percentage (3.2%) did not respond to this question. Of those who were employed outside the home,

22.6% described their employment to be in the field of education, 19.4% in the field of health, 9.7% in sales, and 3.2% in business. An additional 9.7% of respondents worked in a variety of fields, including various types of administration, design, the arts, and manual labour. The majority of mothers (71.0%) reported that they did not work in the first five years of their daughters' lives.

Family income was reported as follows. The majority of respondents (77.4%) reported income to exceed \$50,000 per year, while 9.7% reported income to be less than \$25,000 per year. Three percent of respondents placed their incomes in the categories of \$26,000-\$35,000 per year and \$36,000-\$50,000 per year.

Like mothers in Sample I, most mothers in Sample II reported that a father lived in the home (83.9%). Step-daughters were not reported in this group, and only 3.2% reported step-sons.

Approximately one quarter of respondents (25.8%) reported that their family situation had changed in the years preceding the study. However, the changes described did not warrant exclusion from the study.

The majority of mothers in Sample II (58.1%) reported that they did not participate in an organized religion on a regular basis. Of those who claimed a religious affiliation, 48.8% described themselves as Christian, 32.3% as Agnostic,

9.7% as Jewish, with an additional 9.7% reporting various affiliations including Fundamentalist and New Age. Frequency of participation in an organized religion was reported as follows: 4 times per month, 25.8%, 1-2 times per month, 12.9%, 1-2 times per year, 16.1%, and never, 45.2%.

Like mothers in Sample I, the ethnic heritage most commonly reported by mothers in Sample II was Western European (45.2%). An additional 38.7% reported their ethnicity as Canadian, 3.2% as East European, 3.2% as American, and 9.7% as Hebrew.

Daughters:

Daughters in Sample II ($N = 31$) had a mean age of 12.5 years ($SD = .962$), with a range of 11 to 14 years. Height ranged from 52 to 69 inches, with a mean height of 61.5 inches ($SD = 4.45$). Weight for this group ranged from 73 to 132 pounds, with a mean weight of 99.69 pounds ($SD = 11.84$). Mean school grade was 7.8 ($SD = .792$), and ranged from grade 7 to grade 9 (see Table 2).

A minority of daughters were reported by their mothers to participate in an organized religion (38.7%). Daughters' religious affiliation was as follows: Christian, 48.4%, Agnostic, 35.5%, and Jewish, 9.7%. An additional 6.5% reported a variety of affiliations which included New Age, Pentecostal, and Quaker. Frequency of participation in

organized religion ranged from 4 times per month (25.8%) to never (51.6%). Nine and seven-tenths percent of daughters were reported by their mothers to participate 1-2 times per month, and 12.9% were reported to participate 1-2 times per year.

Daughters' ethnic heritage was predominantly Canadian (41.9%) or West European (41.9%). A small number of mothers reported their daughters' ethnic heritage to be East European (3.2%), American (3.2%), and Hebrew (9.7%). for this variable, most notably in Sample II. Scores on gender role identity were moderate for all participants, and fell within the range of scores obtained by the appropriate norm groups (Bem, 1981).

Instrumentation

For the purpose of this study, four questionnaires were administered to all participants. The Body Image Subscale of the Self-Image Questionnaire for Young Adolescents (Petersen, 1984) was utilized as a measure of body image. The Rosenberg Self-Esteem Scale (Rosenberg, 1965) provided a measure of self-esteem. Gender role identity was determined through the administration of the Bem Sex-Role Inventory (Bem, 1981). Finally, two experimenter-generated questionnaires (designed separately for mothers and daughters) were utilized in order to obtain demographic information on the participants.

1) Bem Sex-Role Inventory (BSRI) (Bem, 1981). The BSRI is the most frequently used of all gender-type scales (Lippa, 1985). The BSRI is a self-administered measure which asks participants to rate themselves on stereotypically "feminine" or "masculine" traits. Items are rated on a 7-point Likert-type scale ranging from "never or almost never true" to "always or almost always true" (see Appendix C). The measure provides 3 scores: femininity, masculinity, and femininity-minus-masculinity difference. Since its introduction, the original form of the BSRI (Bem, 1974) has been modified to a "short form" which contains 30 items, half its original number (Lippa). Modifications were made in order to address criticisms aimed at the original form, and have resulted in a scale which is considered to be psychometrically superior and factorially purer than its predecessor (Lippa). As well, the short form scales correlate strongly (.90) with corresponding scales of the original BSRI (Lippa), and with the Personal Attributes Questionnaire (PAQ) (Holmbeck & Bale, 1988).

Lippa (1985) reports the following coefficient alphas for internal consistency and reliability for the BSRI-SF: for females, .75 for the femininity scale and .87 for the masculinity scale; for males .78 for femininity and .87 for masculinity. Normative data are provided in the BSRI manual for non-Stanford black, white, and Hispanic undergraduates,

psychiatric patients, and groups of different age categories including youth, young adults, and older adults.

Scores from the BSRI short form are given in the form of T-scores based on the difference between scores on the femininity and masculinity scales. The femininity-minus-masculinity scores range from - 50 to + 50, with a score of 0 separating masculinity on the negative side to femininity on the positive side. T-scores are calculated based on this score. The resulting scores range from 12, which represents greatest masculinity to 88 which represents the highest score obtainable for femininity.

Evidence has been presented for the construct validity of the BSRI: for example, Holmbeck and Bale (1988) conducted a multitrait, multi-method analysis which demonstrated convergent and discriminant validity of the instrument. The authors reported that for males, convergent validity coefficients were .35 and .62 when $r(0.0001) = .25$. For females, convergent validity coefficients were .52 and .30 when $r(0.0001) = .17$. Discriminant validity coefficients for the BSRI were reported to be -.27 for males when $r(0.001) = .20$ and .15 for females when $r(0.001) = .12$. As well, results of a study conducted by Frable (1989) are presented as evidence for the predictive validity of the BSRI. This study, in which the relation of sex-typing to gender ideology was examined, reported results of a

multivariate analysis of variance (MANOVA) which show a significant main effect of 2.41 when $p < .005$. These results provide evidence for the predictive validity of the BSRI by demonstrating its ability to predict relevant constructs such as gender role identity at a statistically significant level.

The BSRI has been used extensively in research on gender role orientation. For example, it has been used in studies in which the relation of gender role orientation to self-esteem was investigated both in adults (Kimlicka, Cross, & Tarhai, 1983; Moore & Rosenthal, 1980; Sethi & Bala, 1983) and adolescents (Lamke, 1982). Studies which compared gender role orientation between males and females have included the BSRI (Etaugh & Weber, 1982; Kimlicka, Wakefield, & Goad, 1982; Korabik, 1982). As well, the BSRI has been administered in studies in which gender role identity and social and familial relationships were investigated (Falbo, 1977; Feldman, Biringen, & Nash, 1981; Fleck, Fuller, Malin, Miller, & Acheson, 1980). Because the BSRI is an established measure of gender role orientation with a high number of available norms, it was used within the present study as a predictor measure of gender role identity. The brevity of this measure allowed the researcher to obtain information in an efficient manner.

2) Self Image Questionnaire for Young Adolescents (SIQYA) (Petersen et al., 1984). This measure of self-image is a downward extension of the Offer Self-Image Questionnaire (Offer, Ostrov, & Howard, 1982) and utilizes nine of its scales (see Appendix D & E). These scales include Emotional Tone, Impulse Control, Body Image, Peer Relationships, Family Relationships, Mastery and Coping, Vocational and Educational goals, Psychopathology, and Superior Adjustment. The instrument consists of 98 items. The number of items for each subscale ranges from 8 to 17. Responses are elicited on a 6-point Likert-type scale, ranging from (1) "describes me very well" to (6) "does not describe me at all". Items are scored so that a high score indicates high self-image (Petersen et al., 1984). Psychometric properties of the scale have been demonstrated using three samples: a study sample (n=335), a longitudinal sample (n=253), and a validating sample (n=343). Subjects were both male and female white upper middle class sixth grade students (mean age 11.6), who were followed through to the eighth grade.

Petersen et al. (1984) offer evidence for the validity of the SIQYA by stating that it is highly correlated with a well-validated measure of self-esteem, the Rosenberg Self-Esteem Inventory. Construct validity was ascertained by the administration of both the SIQYA and the Rosenberg Self-Esteem Inventory (SEI) to 335 seventh grade students in a

single testing session. Correlations for overall self image were reported to be .72 for boys and .62 for girls. As well, members of the same sample (n=335) were screened to find evidence of mental health problems. A multivariate analysis of variance demonstrated that those students who reported mental health problems also report poorer self-image overall and poorer self-image on appropriate scales on the SIQYA than the nonproblem group.

For the purposes of this study, the Body Image Scale, an 11 item subscale of the SIQYA, was utilized as a measure of mothers' and daughters' body image satisfaction (see Appendix D and E). This scale taps affective and social comparative aspects of body image (Petersen et al., 1984). Internal reliability of this scale is reported in the form of alpha coefficients for interitem consistency (Petersen et al.). The authors report that for the Body Image Scale, the coefficient for reliability is .81 for boys and .77 for girls. The high rating reported for internal reliability (Brooks-Gunn, Rock, & Warren, 1989; Petersen et al., 1984) ensures that the subscale can be used in isolation from the other subscales without compromising the validity of the results. Petersen et al. argue that an advantage of their instrument over other measures of self-esteem is that the results with specific scale scores, body image, in particular, demonstrate differentiated, and therefore

informative patterns. The body image subscale is therefore highlighted by its authors as having the capacity to provide accurate information independently of the other subscales comprising the SIQYA.

Scores for the Body Image Subscale of the SIQYA are calculated based on raw scores, with high scores representing positive body image. Scores range from 1.0 to 6.0, which represents the highest possible score obtainable.

The Body Image Subscale of the SIQYA has been administered to mothers and daughters in previous research. For example, Attie and Brooks-Gunn (1989) utilized this 11 item scale in their longitudinal study on the relation of maternal characteristics to the development of eating disorders in a sample of 193 white adolescent girls aged 13 years at first contact. The authors report that slight modifications were made to the scale for mothers. Modifications were made in order to increase face validity, and were considered by the authors to be insufficient to invalidate results. For the purposes of this study, similar modifications were also necessary on items # 34 , 70, and 72 of the Body Image subscale. In its original form, item #34 read "I am uncomfortable with the way my body is developing". For mothers, this item was changed to read "I am uncomfortable with the way my body has developed". Item # 70 was modified from "When others look at me they must think

that I am poorly developed" to "When others look at me, they must think that my body did not develop well". Finally, for mothers item #72 was modified from its original form of "My body is growing as quickly as I would like it to" to "My body developed the way I would have liked it to". An advantage of this scale for mothers and daughters is that it provides information on the mother's current body image, as well as her body image as she developed at adolescence. In this way, the scale may provide a link between mothers and daughters in terms of their perceptions of their experiences at puberty.

3) Rosenberg Self-Esteem Scale (Rosenberg, 1965). This scale was originally developed for use with high school students, and is designed to measure the self-acceptance aspect of self-esteem (Rosenberg, 1965). The scale consists of 10 items answered on a 4-point Likert-type scale (see Appendix F). Responses range from "Strongly Agree" to "Strongly Disagree". The initial norm group was a sample of 5,024 junior and high school seniors from 10 randomly selected New York schools (Rosenberg, 1965). Scores are analyzed based on raw scores, which may range from 1.0, representing the lowest score for self-esteem, to 4.0 which represents the highest level of self-esteem obtainable.

Reliability has been reported in the form of a Guttman scale reproducibility coefficient of .92 (Robinson & Shaver,

1973). Test-retest reliability is reported as .85 (Silber & Tippet, 1965). Correlations offered as evidence for the scale's convergent validity include .59 - .60 when correlated with the Coopersmith Self-Esteem Inventory, and .27 when correlated with the CPI self-acceptance scale (Robinson & Shaver, 1973). Evidence for the scale's discriminant validity is cited in the form of correlations with measures of self-stability of .21 to .53 (Robinson & Shaver, 1973). The scale has been widely used since its inception and is considered by many researchers to be a brief and thorough measure of self-esteem (Robinson & Shaver, 1973). Also, because it was originally developed and normed using an adolescent population, it is applicable to the adolescent group under investigation in the present study.

4) Demographic Questionnaires (experimenter-generated). Two demographic questionnaires were designed by the researcher in order to obtain information on the characteristics of the population under investigation. The first was designed for mothers, and requested basic information such as height, weight, and age (see Appendix A). Additional information, including occupational status (both current and in the first five years of the daughter's life), family income level, and family membership was also requested. Mothers were also requested to identify religious affiliation and extent of

participation for themselves and their daughters. The demographic questionnaire also requested information on mothers' and daughters' ethnic heritage.

The second demographic questionnaire was designed for completion by daughters (see Appendix B). This questionnaire requested basic information only. Information requested from daughters included age, height, weight, and grade. As well, daughters were asked to identify the age and gender of siblings, and the age at which they had experienced their first menstrual period. Finally, a section was made available to daughters to express comments and reactions to the study.

Procedure

Principals of private schools, directors of school boards, and heads of Parent Associations in the Greater Vancouver area were contacted both by telephone and in writing as a means of recruiting participants. Contact was made, and permission to recruit was obtained from Hillside School and York House School. Physical Education classes consisting of girls in grades 7-11 were targeted for recruitment. Girls in these classes were offered an explanation of the study and the requirements and parameters of their participation, and questionnaire packages were distributed to those interested. Students were asked to take the packages home to be completed once their mothers'

consent and agreement to participate had been obtained. As well, Parent Associations from various secondary schools on the West Side of Vancouver agreed to allow the researcher to enter their meetings in order to introduce the study to parents, and to give interested parents the opportunity to participate with the cooperation of their daughters.

Questionnaire packages included a letter of introduction (Appendix G) which explained the nature of the study and offered the names and telephone numbers of the researchers in the event participants had any questions or concerns regarding their participation. In addition to the instruments and the demographic questionnaire, the participants were offered a note of thanks, and were given the opportunity to request the results of the study as soon as they became available. Finally, the questionnaire packages included a self-addressed, stamped envelope so that the completed questionnaires could be returned to the researcher.

Data Analysis

Analysis of the data was undertaken in two stages. In the first stage, a stepwise multiple regression analysis was conducted to test the stated hypotheses. Body image, as measured by the Body Image Subscale of the Self-Image Questionnaire for Young Adolescents (SIQYA) was the criterion variable. Predictor variables were self-esteem, as

measured by the Rosenberg Self-Esteem Scale, and gender role identity, as measured by the Bem Sex-Role Inventory (BSRI). The Statistical Package for the Social Sciences (SPSS) was utilized for all statistical analyses.

Multiple regression analysis was the statistical procedure of choice because the study was non-experimental in nature. As well, this technique was most appropriate because the design required that measures on the predictor variables be obtained in order to assess their ability to predict the criterion variable of body image. Following the multiple regression analysis, there was some exploratory analysis to examine the independent contributions of the variables. Included in the exploratory analysis was an examination of the similarity dimension of the scores of mothers and daughters through an analysis of relationships between their scores on the variables under investigation. Specifically, a series of t-tests were conducted in order to determine the relationships between various demographic variables such as religious orientation and the criterion variable, body image. Finally, t-tests were undertaken which compared Samples I and II on demographic variables. A t-test comparing a subsample of same-aged daughters from each sample was conducted in order to investigate differences in scores between menstrual and pre-menstrual girls.

In the second stage of analysis, a correlation matrix of mothers versus daughters using body image scores was produced in order to assess if there was a relationship between individual mothers and their daughters in their scores on the predictor and criterion variables. The correlational matrix provided the researcher with specific information on body image scores for distinct mother/daughter pairs.

CHAPTER FOUR

Results

Results were obtained for two samples: Sample I, containing mother/daughter pairs in which the daughter had experienced the onset of menstruation in the 36 months preceding the study ($N = 82$ pairs) and Sample II, containing mother/daughter pairs in which the daughter had not yet experienced her first menstruation ($N = 31$ pairs). The hypotheses were accepted or rejected on a $p < .05$ level of significance.

Comparison of Samples on Demographic Information

A t-test was conducted to determine whether there were differences in demographic characteristics between mothers in Sample I and Sample II. Results of t-tests are presented in Table 3. Differences were not found on most demographic characteristics, with the exception of age ($T = -2.19$, $DF = 110$, 2-tail prob. = .031). It was therefore determined that mothers in Sample I were significantly younger than mothers in Sample II. As well, significant differences were found between mothers in Samples I and II on employment during the first 5 years of the daughters' lives ($T = -2.82$, $DF = 110$, 2-tail prob. = .006). T-tests therefore revealed that mothers in Sample I were employed more often than mothers in Sample II during that time.

T-tests on differences between daughters revealed significant differences in age between daughters in Samples I and II ($T = 3.99$, $DF = 111$, 2-tail prob. = .0001), height ($T = 4.18$, $DF = 102$, 2-tail prob. = .0001), weight ($T = 4.84$, $DF = 104$, 2-tail prob. = .0001), and grade ($T = 4.16$, $DF = 111$, 2-tail prob. = .0001) (see Table 4). T-tests therefore revealed that girls in Sample I were older, taller, heavier, and in a higher grade than their counterparts in Sample II.

Scores for Dependent and Independent Variables

Scores for all participants on the variables under investigation are presented in Table 5 for Sample I and Table 6 for Sample II. In general, scores on self-esteem were high, as mean scores were above 2.00 out of a possible score of 4.00. Mothers' scores on self-esteem were higher than daughters' scores on this variable for both samples. Scores on body image were also fairly high for all participants, as the mean scores for all groups were above 3.00 out of a possible score of 6.00. Again, mothers' scores were higher than daughters' scores

TABLE 3
T-tests on Mothers in Sample I and Sample II

Variables Probability	T	DF	2-Tail
age	-2.19	110	0.031*
height	-0.85	109	0.397
weight	0.04	111	0.970
education	-.086	110	0.393
current employment status (yes/no)	-0.77	110	0.445
employed in 1st 5 years of daughter's life (yes/no)	-2.82	110	0.006*
family income	-0.12	106	0.906
father in home (yes/no)	-0.37	111	0.715
<hr/>			
n = 113			
p < .05			

TABLE 4
T-tests on Daughters in Sample I and Sample II

Variables	T	DF	2-Tail Probability
age	3.99	111	0.0001*
height	4.18	102	0.0001*
weight	4.84	104	0.0001*
grade	4.16	111	0.0001*
n = 113			
p < .05			

TABLE 5

Sample I

Means and standard deviations for mothers and daughters on SIQYA, BSRI, And Rosenberg SE Scale

	Mothers		Daughters	
	M	SD	M	SD
SIQYA	4.077.	.988	4.033	.894
BSRI	52.94	11.65	52.95	11.12
ROS	3.12	.480	2.94	.522
n = 82 pairs				

TABLE 6

Sample II

Means and Standard Deviations for Mothers and Daughters on SIQYA, BSRI, & Rosenberg SE Scale

	Mothers		Daughters	
	M	SD	M	SD
SIQYA	4.57	.713	3.93	.912
BSRI	51.71	9.79	51.77	8.77
ROS	3.22	.461	2.96	.523
n = 31 pairs				

To test Hypothesis I (A), a step-wise multiple regression analysis was conducted on the scores obtained by menstrual daughters on the three instruments utilized in the study. Scores for Sample I on the three measures including means and standard deviations for both mothers and daughters are presented in Table 5. Results of the first regression analysis are presented in Table 7. For daughters in Sample I, step-wise multiple regression analysis revealed that the variable of self-esteem contributed independent and significant proportions of variance to the prediction of body image (33.3%). For menstrual daughters, high self-esteem scores were associated with positive body image scores. Because the independent variable of self-esteem was found to make a significant contribution to body image scores at the $p \leq .05$ level, the null hypothesis was rejected, indicating that self-esteem scores were found to predict body image scores at a significant level.

To test Hypothesis I (B), a step-wise regression analysis revealed that the predictor variables gender role identity and self-esteem contributed 37.3% of the variance in body image scores for menstrual daughters. Because self-esteem was determined to account for 33.3% of the variance, it was concluded that gender role contributed an additional 4.0 % of the variance in body image scores. An F test conducted on the change in R squared when gender role

TABLE 7

Sample I
Daughters

Step-wise Multiple Regressions of SIQYA Scores on
Independent Variables

Independent Variables	Regression Equation	R	Δ R Square	R Square	P
ROS	$Y' = 1.29 + .99x$	.577	.333		.01
BSRI	$Y' = 1.99 - .02x$	.611	.373	.04	.01

n = 82 pairs
p \leq .05

identity was added was significant at the $p < .01$ level, $F(2,79) = 5.02$, $p \leq .01$. Therefore, results indicated that high masculinity was associated with positive body image. Gender role identity contributed to variance in body image scores to a lesser degree than self-esteem. Consequently, the relationship evident between masculinity and positive body image was considered to be a significant but less powerful phenomenon. Because the independent variable of gender role identity contributed to a significant degree to the variance in body image scores at the $p \leq .05$ level, the null hypothesis was rejected, indicating that scores on gender role identity were found to predict body image scores at a significant level.

To test Hypothesis II (A), a step-wise multiple regression analysis was conducted using scores obtained from mothers on the three instruments utilized in the study. Results of the regression analysis for mothers are presented in Table 8. It should be noted that cautions in the interpretation of the results of regression analyses for mothers of menstrual daughters must be taken based on the finding of multicollinearity, or correlations between the predictor variables (see Table 9). This result is addressed in the discussion of the testing of Hypothesis III to follow.

TABLE 8

Sample I
Mothers

Step-Wise Multiple Regressions on SIQYA Scores on
Independent Variables

Independent Variables	Reression Equation	R	Δ R Square	R Square	P
ROS	$Y' = .87 + 1.00x$	.488	.238		.01
BEM	$Y' = -1.07 + .02X$	.567	.321	.083	.01

n = 82 pairs

p < .05

Results of the regression analyses for mothers were similar to those found for menstrual daughters, revealing that the predictor variable of self-esteem made an independent and significant contribution to the variance in body image scores (23.8%). Therefore, results for mothers revealed that like menstrual daughters, high self-esteem was associated with positive body image. Because self-esteem contributed to a significant degree to variance in body image scores, the null hypothesis was rejected, indicating that scores on self-esteem were found to predict scores on body image at a significant level.

To test Hypothesis II (B), a step-wise regression analysis was conducted on the scores obtained by mothers of menstrual daughters. Results revealed that the independent variables together contributed to variance in body image scores by 32.17%. An F test conducted on the change in R squared when gender role identity was added was significant at the $p < .01$ level, $F = (2,79) = 9.29$, $p \leq .01$. Because it was determined that self-esteem accounted for 23.8% of the variance, it was concluded that gender role identity made an independent and significant contribution to variance in body image scores of 8.3%. Results therefore revealed that high scores on femininity were linked with positive body image. As in the sample of menstrual daughters, self-esteem was found to make a greater contribution to variance in body

image scores than did gender role identity. As a result, the relationship between high self-esteem and positive body image was viewed as being stronger than the relationship between positive body image and femininity. Because significant contributions were found to be made by gender identity in the prediction of body image scores at a $p < .05$ level, the null hypothesis was rejected, indicating that scores on gender role identity were found to predict body image scores at a significant level.

In summary, for Sample I consisting of mothers and menstrual daughters, scores for both mothers and daughters revealed that self-esteem was the strongest predictor of variance in body image scores, particularly for daughters. The strength of gender identity in accounting for variation in body image scores was greater for mothers than for daughters.

To test Hypothesis III, a correlation matrix was produced in order to determine the relationships between specific mother/menstrual daughter pairs on the predictor and criterion variables. Table 9 presents Pearson correlation coefficients and levels of significance for mothers and daughters in Sample 1. The correlation matrix indicated that mothers' scores on body image were positively related to menstrual daughters' scores on body image ($r =$

.275; $p = .006$). Thus it was determined that as mothers' scores rose toward a more positive body image, so did their daughters'. Because a significant correlation was revealed between body image scores for mothers and menstrual daughters at a $p < .05$ level, the null hypothesis was rejected.

The correlation matrix also revealed a positive correlation between mothers' and menstrual daughters' scores on self-esteem ($r = .195$; $p = .039$). These findings are consistent with the results of the multiple regression analyses. Also as might be expected from the results of the regression analyses, positive correlations were found between menstrual daughters' scores on body image and self-esteem ($r = .577$; $p = .000$) and between mothers' scores on body image and self-esteem ($r = .488$; $p = .000$).

A significant negative correlation was found between mothers' scores on self-esteem and gender role identity ($r = -.297$; $p = .003$). It was therefore determined that a negative relationship existed between the two predictor variables, so that as scores on self-esteem rose, scores on gender role identity fell. Results of the regression analyses for this group may therefore have been tempered by the finding of multicollinearity. However, the correlation between variables was moderate, and did not appear in mothers in Sample II. As well, regression analyses conducted

on scores from the independent variables alone revealed no significant effects. It is possible, therefore, that the finding of multicollinearity was an anomaly. Nevertheless, cautions in the interpretation of the regression analyses for this group must be taken in the light of this finding. Significant correlations were not found between mothers' scores on gender identity and scores for daughters on this measure.

To test Hypothesis IV (A), a step-wise multiple regression analysis was conducted on the scores obtained from pre-menstrual daughters on the three instruments administered. Table 6 presents scores for both mothers and daughters in Sample II, including means and standard deviations. Results of the regression analysis for daughters are presented in Table 10. Results indicate that for pre-menstrual daughters, self-esteem did not make a significant contribution to variance in body image scores. The null hypothesis was therefore accepted, indicating that scores on self-esteem were not found to predict body image scores for this group.

Regression analyses undertaken to test Hypothesis IV(B) indicated that the independent variable gender role identity made a significant and independent contribution to the prediction of body image scores (13.3%). Thus, it was revealed that for pre-menstrual daughters, femininity was

associated with positive body image. This result is different from that obtained from daughters in Sample I, which identified self-esteem as the strongest predictor of body image. Implications of these findings will be discussed in the Discussion section of this paper. Because the contribution made by gender identity to the prediction of body image scores was found to be significant at the $p \leq .05$ level, the null hypothesis was rejected.

To test Hypothesis V (A), a step-wise multiple regression analysis was conducted on scores obtained from mothers of pre-menstrual daughters on the three instruments utilized in the study. Results of the regression analysis are presented in Table 11. Results for mothers in Sample II were found to be similar to those obtained from mothers in Sample I: the regression analysis revealed that self-esteem accounted for 14.4% of variance in body image scores. Because this result was found to be significant at a $p \leq .05$ level, the null hypothesis was rejected.

To test Hypothesis V (B), regression analyses were conducted on scores obtained by mothers of pre-menstrual daughters. Results indicated that gender role identity did not make a significant contribution to the variance in body image scores for these women. The null hypothesis was therefore accepted.

TABLE 10

Sample II
Daughters

Step-wise Multiple Regressions on Daughters
on Independent Variables

Independent Variable	Regression Equation	R	R Square	P
BSRI	$Y = 1.97 + .04x$	.364	.133	.044
n = 31 pairs				
p \leq .05				

TABLE 11

Sample II

Step-wise Multiple Regressions on Mothers on
Independent Variables

Independent Variable	Regression Equation	R	R Square	P
ROS	$Y = 2.67 + .58x$	.379	.144	.035
n = 31 pairs				
p \leq .05				

To test Hypothesis VI, a correlation matrix was produced in order to determine the relationships between specific mother/pre-menstrual daughter pairs on the predictor and criterion variables. Table 9 presents Pearson correlation coefficients and levels of significance for mothers and pre-menstrual daughters on the three variables. A significant correlation was not found for body image in these mothers and their daughters. A significant positive correlation was found, however, for self-esteem between these mothers and their daughters ($r = .330$; $p = .035$). Thus, results indicated that as mothers' scores on self-esteem rose, so did their daughters'. Consistent with the results of the multiple regression analysis, the correlation matrix revealed a significant positive correlation for mothers between self-esteem and body image ($r = .379$), $p = .018$. This result indicated that for mothers of pre-menstrual girls, a positive relationship existed between scores on body image and self-esteem, so that increases in body image scores were related to increases in scores on self-esteem. Also consistent with the results of the multiple regression analysis was the finding of a significant positive relationship for daughters between gender identity and body image ($r = .364$; $p = .022$), with increases in body image scores related to increasing scores on femininity. Since a significant correlation was not found

between mothers and daughters on the dependent variable, body image, the null hypothesis was accepted.

Following the above procedures, a series of t-tests were undertaken as post hoc exploratory measures. The first t-test was conducted in order to determine whether body image scores for all mother/daughter pairs were related to participants' categorical ratings (ie, feminine, masculine, androgynous, and undifferentiated) on the Bem Sex-Role Inventory (Bem, 1981). Significant results were not found. A second t-test was conducted in an effort to determine whether mothers' employment status in the first five years of their daughters' lives was related to daughters' body image scores. Again, significant results were not found. A t-test was also undertaken which compared the scores of a sub-sample of 14 menstrual and 12 pre-menstrual girls aged 12 years. This test did not reveal significant results. Finally, no significant results were found on a t-test which examined the relationship between various categories of religious orientation and daughters' scores on body image.

Standardized scatterplot diagrams were produced for all data obtained in the study in order to ensure normal distribution of scores. All diagrams revealed normal distributions (see Appendix H).

CHAPTER FIVE

Discussion

In the present chapter, a restatement of the purpose of the study is presented, followed by a discussion of the participant sample and a summary and discussion of the results obtained from testing the hypotheses. A discussion of implications for future research and recommendations for counselling will conclude the chapter.

Restatement of the Purpose

The primary purpose of the study was to explore the relationship between self-esteem, gender role identity, and body image for mothers and their adolescent daughters during the pubertal period of development. It was hypothesized that the relationships between variables evident in mothers would be comparable to the relationships evident in daughters.

Initially, it was decided that the cultural, social, biological, and developmental significance of menarche required that the adolescent girls selected for inclusion in the study had experienced the onset of menarche within 36 months of the time of data collection. However, completed test packages returned allowed the researcher to include a second sample of mother/daughter pairs in which the daughters had not yet experienced menstruation. This allowed further comparisons to be made between pre-menstrual and

menstrual girls. As a result, the primary purpose of the study was expanded to include an exploration of the differences between the two groups on the relationships between variables.

Discussion of the Sample

The sample reflected a well-educated, middle to upper (dual) income population, who were not highly committed to organized religion. The majority lived in traditional family settings, with mothers working in traditional occupations. Despite the lack of random sampling, participants were somewhat diverse in terms of religious affiliation and ethnicity.

Because the sample consisted of predominantly white upper to middle class women and girls, it is possible that their responses reflected the cultural attitudes and values of this group evident in larger society. Comparisons made on the basis of culture could not be made in this sample group. As well, the high level of education evident in the sample of mothers may indicate a sample of women who are aware of the issues surrounding the variables under investigation. Their responses may reflect a heightened awareness to these issues as compared to the population in general. Finally, the financial stability, and the traditional family settings characteristic of this sample may have affected responses in

the direction of more positive ratings. It is possible that the participants' environment had an influence on the type of response. That is, the environmental influences, and the types of experiences participants had as a result of their environment may have affected their perceptions of themselves, and therefore, their responses. However, the nature of the impact was not investigated in the present study.

Overall, scores for both groups of mothers and daughters on self-esteem were quite positive, indicating a fairly high level of self-esteem for the two samples in general (Tables 5 & 9). As well, scores on body image were generally high (Tables 5 & 9). Gender role identity scores were consistent with the scores obtained for comparable norm groups (Bem, 1981). Scores therefore reflected a sample of participants who had generally positive perceptions about their bodies, had generally high self-esteem, and who rated their gender role identity in a similar manner to their counterparts in norm groups.

Demographic differences were noted between the sample groups. For example, significant differences were found between daughters in Samples I and II (Table 4). Daughters in Sample I, the menstrual girls, were found to be significantly older, taller, and heavier than daughters in Sample II. As well, daughters in Sample I were found to be

in a higher school grade. These variables are interconnected, and reflect developmental differences between daughters in the two groups. For example, menstrual girls are more likely to be older, taller, and heavier than their premenstrual counterparts. Although these differences were found to be significant, they were relatively small (see Table 4). As well, results of a t-test which compared scores of 12 year old girls in both samples revealed no significant differences. This result indicates that the relationships evident between variables may be related to menstrual status rather than age. Thus, although differences in age, height and weight may account for some of the variations in responses between the two groups, it is also possible that the onset of menstruation played a role in the differences evident in responses between daughters in the two sample groups.

Significant differences were also found between mothers in Sample I and Sample II. T-tests revealed that mothers in Sample II were older than mothers in Sample I, and that mothers in Sample II had been employed in the first five years of their daughters' lives at a higher rate than mothers in Sample II (see Table 3). Although the difference in age between mothers is small, it may have affected responses, as it indicated a greater age difference between the younger, pre-menstrual girls and their older mothers. As

well, the greater amount of time spent by mothers of premenstrual girls in their first years of life may have resulted in a closer, more intimate mother-daughter relationship for these participants. However, this study did not investigate the impact of these differences in detail.

In summary, the two samples were similar in terms of class, family setting, income, and religious orientation. Small but significant differences were found between the sample groups, which may have affected the outcome of the study. The present study did not explore the implications of these differences in detail.

Summary and discussion of results

Sample I

Testing of the first hypothesis indicated that for menstrual daughters, self-esteem accounted for 33.3% of variation in body image scores, followed by gender role identity which accounted for an additional 4.0% of the variation in body image scores. Results for mothers of menstrual girls were similar to those for daughters: self-esteem was found to predict body image (23.8%), followed by gender role identity, which added to variance in body image scores by an additional 8.3%.

The relationship between self-esteem and body image evident in the present study is consistent with results of previous research on both women and adolescent girls

(Jackson et al., 1988; Jones & Mussen, 1958; Lerner et al., 1976, Noles et al., 1985; Rosen & Ross, 1968; Secord & Jourard, 1953). Like the research cited above, in this study higher self-esteem scores were found to correspond to more positive body image scores. The strength of self-esteem in predicting body image was greater for daughters (33.3%) than for mothers (23.8%). By demonstrating a significant relationship between these variables, this result appears to add support to research which links body image to self-esteem, particularly in the context of adolescent development (Attie & Brooks-Gunn, 1989; Fabian & Thompson, 1989; Koff et al., 1978; Petersen, 1988; Rierdan & Koff, 1980; Rosenbaum, 1979).

Testing of the first and second hypotheses also identified gender role identity as a significant predictor of body image. However, for daughters, it was determined that negative body image was associated with greater femininity (4.0%), while for mothers, positive body image was related to higher scores for femininity (8.3%). Previous research has indicated that for women, perception of femininity is related to negative body image (Jackson et al., 1987, 1988; Kimlicka et al., 1983; Winstead & Cash, 1984). Thus, for menstrual girls in the present study, results are consistent with evidence presented in earlier research. For mothers of menstrual girls, however, the

relationship existed in the opposite direction: higher scores on femininity were associated with more positive body image scores. For this group, higher femininity scores were related to both higher self-esteem and more positive body image scores. This result may indicate developmental differences between mothers and daughters. That is, adolescent girls may be demonstrating that they may be experiencing a process of identity formation, in which the physical characteristics of femininity, such as breast development and onset of menses are not yet integrated with the psychological aspects of identity development. For mothers, however, the integration of physical and psychological components of identity may have occurred, leading to a more congruent relationship between femininity, self-esteem, and body image. The relationship of higher femininity and negative body image evident in menstrual girls may also be associated with the negative attitude toward menstruation expressed by the adolescent participants in the present study (to be discussed in the following section). For these girls, then, negative perceptions of the physical changes that accompany the onset of menses may be associated with femininity, and therefore, with a more negative body image.

The third hypothesis stated that for mother/menstrual daughter pairs, mothers' body image scores would not predict

daughters' body image scores. A significant positive correlation was found between mothers and daughters on the dependent variable ($r = .275$, $p = .006$). As a result, the null hypothesis was rejected. A positive correlation was also found between mothers' self-esteem and that of daughters ($r = .195$, $p = .039$). However, a significant correlation was not found for mothers and daughters on the variable of gender identity.

This finding lends support to earlier evidence identifying the mother-daughter relationship as a significant predictor of the adolescent girl's self-image, particularly at puberty (Holmbeck & Hill, 1986; Leaper et al., 1989; LeCroy, 1988; Offer et al., 1982). Specifically, the present study suggests that there may be an association between the body image of an adolescent girl and that of her mother.

The finding of a positive correlation between mothers and their menstrual daughters on body image and self-esteem is consistent with the theoretical framework offered by object relations theorists, who emphasize the central importance of the mother-daughter relationship in adolescent identity formation (Bassof, 1988; La Sorsa & Fodor, 1990; Miller, 1976; Rubin, 1983). In the present study, the positive correlation between mothers and daughters on body image and self-esteem scores might be indicative of the

presence of an interactional process between mother and daughter. That is, results of the present study indicated that higher scores on body image and self-esteem for mothers were associated with higher scores on these variables for daughters. By identifying a positive correlation between body image and self-esteem scores for mothers and daughters, the present study adds empirical support to the theoretical position that the mother-daughter relationship is a critical component in adolescent development, including the development of body image, and thereby emphasizes the reciprocal influence within the mother-daughter relationship (Bassof, 1988; La Sorsa & Fodor, 1990; Rubin, 1983). Because the present study did not investigate alternate factors, such as the influence of the father or peer relationships, it may be that these or other factors may have contributed to the finding of a correlation between mothers' and daughters' scores on body image. Further study, which identified and explored these factors would be required in order to gain a better understanding of the extent to which the mother-daughter relationship may influence the development of the adolescent girl.

In the present study, although high self-esteem scores were linked to high femininity scores for both mothers and menstrual daughters, a significant correlation was not found between mothers and daughters on gender role identity.

Differences between mothers and daughters were evident in the strength of the contribution made by gender role identity to variance in body image scores (Tables 10 & 11). Thus for mothers, gender role identity contributed to variance in body image scores by 8.3%, while for menstrual daughters, gender role identity contributed only 4.0%. For mothers, then, gender role identity was more closely associated with self-esteem and body image than for menstrual daughters. This result is consistent with the results showing no significant correlation between gender role identity scores for mothers and daughters.

This is perhaps explained by the arguments of La Sorsa & Fodor (1990), who posit that recent societal changes in roles and expectations for women may act to complicate the mother-daughter relationship further:

adolescent daughters of these [contemporary] mothers are the first generation that from birth was exposed to the expanded options for women; that is , the first generation of women who could aspire to being more than wives and mothers or entering traditional women's occupations. (p.594)

Unlike earlier generations, the contemporary adolescent's identity crisis may not be resolved through the modeling of her mother's traditional role (Erickson, 1968). Instead, models include adult women (including mothers) who

demonstrate a much wider variety of options. La Sorsa & Fodor (1990) argue that the increased options for women, often modelled by a mother who is an active participant in the work force, may lead to confusion and a prolonged period of identity formation for the contemporary adolescent girl.

Results of the present study may therefore indicate greater confusion and a lack of integration in gender role identity formation by daughters. It is also possible that the weaker strength of gender role identity in predicting body image for daughters may indicate that daughters, unlike mothers, are still in the process of developing gender role identity. For daughters, then, gender role identity may be vague and poorly defined. As well, it may be that for daughters, the associations between gender role identity and actual behavior may not be as rigid and prescribed as for mothers. Thus, because they belong to a different generation of women, for mothers the issue of gender role identity may be more salient and more closely associated with overall identity, than for daughters.

Sample II

The fourth hypothesis (A & B) tested stated that for pre-menstrual girls, self-esteem and gender role identity would not predict body image as measured by the instruments indicated above. Results identified gender role identity as the only significant predictor of body image (13.3%). As a

result, Hypothesis IV(A) was rejected and Hypothesis IV(B) was accepted.

These results are consistent with the findings of research comparing menstrual and premenstrual girls (Koff et al., 1978; Rierdan & Koff, 1980). In this body of research, it was reported that pre-menstrual girls were more concerned with the physical characteristics of puberty, such as breast development, than menstrual girls. Thus for pre-menstrual girls in the present study, it may be that feminine gender role identity was perceived or defined in terms of the physical changes of puberty. This concern with physical changes may reflect the association between gender role identity and body image for pre-menstrual girls in the present study.

The difference in results between pre-menarchal and menarchal girls provides additional support to research which identifies the onset of menarche as a pivotal event around which the adolescent girl's body image and sexual identification come to be re-organized (Koff et al., 1978; Rierdan & Koff, 1980, 1985). The nature of the differences between daughters in Samples I and II, and the implications of these differences, will be discussed at the conclusion of this section.

Hypothesis V (A & B) stated that for mothers of pre-menstrual daughters, self-esteem, as measured by the

Rosenberg Self-Esteem Scale, and gender role identity, as measured by the Bem Sex-Role Inventory, would not predict body image. Testing of the hypothesis revealed that self-esteem contributed to variance in body image scores to a significant degree (14.4%), while gender role identity did not make a significant contribution. Null Hypothesis V(A) was therefore accepted and null hypothesis V(B) rejected.

For mothers of pre-menstrual girls, gender role identity was not found to make a significant contribution to variance in body image scores. This could be attributed to the small size of the sample ($n = 31$). As well, this result may have emerged because unlike the daughters in Sample I, the daughters of this sample were pre-menstrual and significantly younger than menstrual daughters (Table 4). Results of the present study may therefore indicate that gender role identity may be a more salient issue for mothers of menstrual daughters. In contrast, for mothers of younger, pre-menstrual daughters, gender role identity may not yet have re-emerged as a relevant or meaningful issue. Although research has not investigated this area in detail, there is evidence in the literature that mothers and daughters interact differently according to the daughter's menstrual status (Hill et al., 1985). This research suggests that the period following the onset of menstruation is characterized by stress and often conflict between mother and daughter. It

is arguable, therefore, that the onset of menstruation may trigger the emergence of developmental issues such as gender role identity for both mothers and daughters. Results of the present study may indicate that mothers of pre-menstrual girls may not yet have been confronted by this issue.

The testing of Hypothesis VI revealed that for mother/pre-menstrual daughter pairs, a significant correlation was not found between mothers and daughters on the dependent variable, body image. The null hypothesis was therefore accepted.

The lack of a significant correlation between body image scores for mothers and pre-menstrual daughters may be due to the small sample size ($n = 31$ pairs). However, these results may also be due to the developmental status of the daughters. Because the sample of pre-menstrual girls was significantly younger and smaller in physical size than the sample of menstrual girls (Table 4), it is arguable that this population tended to be less developed or physically mature. As a result, these mothers and daughters may not yet have been confronted by the developmental challenges triggered by pubertal changes described by developmental theorists and researchers (Attie & Brooks-Gunn, 1989; La Sorsa & Fodor, 1990; Petersen, 1988; Rierdan & Koff, 1980). The salience of body image, and the manner in which it is

assessed, may therefore be quite different for pre-menstrual daughters than for their mothers.

A significant positive correlation between self-esteem scores for mothers and daughters was revealed ($r = .330$, $p = .035$). However, a significant correlation between mothers and daughters on gender role identity was not found. It is possible that this result might be due to the effect of the daughters' pubertal status on the mother-daughter relationship. For pre-menstrual daughters, gender role identity may be in the process of development, and may be defined in terms of physical characteristics. It may be that the onset of menarche in daughters triggers a process of reassessment of gender role identity for mothers. For mothers of pre-menstrual girls, perhaps this process has not yet begun. Results of the present study may reflect that mothers and pre-menstrual daughters are in an earlier phase of development, and as a result their perceptions of developmental issues such as gender role identity may be different.

For mothers of both menstrual and pre-menstrual girls, results of the present study indicated that higher femininity scores were associated with higher self-esteem and more positive body image. This is in direct contradiction to results of the majority of research in this area (Jackson et al., 1988; Whitely, 1983, 1988). The

results of this study, however, may reflect the phenomenon reported by Jackson et al. (1988). Although the authors found that in their investigation, women with high scores on femininity also demonstrated negative body image, they reported that there were no differences among women in the importance they ascribed to physical appearance. The researchers discussed this finding as evidence of the acceptance among contemporary women of cultural standards on the importance of appearance for women. In the present study as well, scores may reflect participants' acceptance of these cultural standards, with the result that high scores on both self-esteem and femininity were associated with positive body image.

Examination of the data reveal notable differences between Sample I and Sample II in the results of the regression analyses. For example, for daughters in Sample I, self-esteem emerged as the strongest predictor of body image (33.3%) followed by gender identity (4.0%), while for Sample II daughters, gender role identity proved to be the only significant predictor of body image (14.3%). As well, results of t-tests which revealed no significant differences between the scores of a sub-sample of same-aged menstrual and pre-menstrual girls indicated that differences may be related to menstrual status rather than age. These results point to a noteworthy difference between pre-menstrual and

menstrual girls in the factors which are related to body image, and support increasing evidence presented in contemporary literature that the onset of menarche is a critical experience for the adolescent girl (Attie & Brooks-Gunn, 1989; Fabian & Thompson, 1989; Koff et al., 1978; Petersen, 1988; Rierdan & Koff, 1980; Rosenbaum, 1979). Research on menstruation identifies body image and sexual identification as the variables which represent the greatest differences between pre-menstrual and menstrual girls. For example, the present study supports evidence presented by Koff et al. (1978) and Rierdan & Koff (1980) that pre-menarchal girls were more preoccupied with changes in body parts, and by extension sexual identification, than their menarchal counterparts who exhibited a more integrated body image.

Researchers of female adolescent development suggest that menarchal girls are less pre-occupied with issues of physical maturation and sexual identification than pre-menstrual girls; as a result, their body image may be more coherent and better integrated (Koff et al., 1978; Rierdan & Koff, 1980). Thus, for menstrual girls gender role identity may be associated with the behavioral and psychological aspects of development, rather than with physical maturation. The emergence of positive self-esteem as the strongest predictor of body image in menarchal girls in the

present study suggests that this population may have experienced the physical changes of puberty. The salient developmental tasks may therefore entail integration of these changes into overall identity. Thus, menarchal girls may begin to make associations between body image and self-esteem. The present study indicated that for menarchal girls, the relationship between body image and self-esteem is similar to the relationship between these variables evident in adult women, with higher self-esteem being related to more positive body image (Jackson et al., 1988; Jones & Mussen, 1958; Lerner et al., 1976; McCaulay et al., 1978; Noles et al., 1975). This result suggests that menarchal girls may be moving toward a more mature phase of development than their pre-menarchal counterparts.

The differences between pre-menstrual and menstrual girls evident in the present study emphasize the importance of the onset of menarche in the developmental process of adolescence. The differences evident between the groups suggest that for adolescent girls, the onset of menarche may be associated with shifts in self-esteem, gender role identity, and body image, and may affect the relationships between these variables. In addition, the evidence suggests that the onset of menarche may have implications for the development of the mother as well as the daughter. However, the present study did not explore alternate factors which

may have contributed to differences between the groups, such as whether the girl perceived her development to be early, on time or late compared to her peers. Clearly, further study is required if this process is to be understood in greater depth.

Comments by Participants on Menstruation

The participating daughters were not asked to describe the meaning menarche had for them; however, many offered their comments, which were overwhelmingly negative. For example, in reply to the question of when they had experienced their first menstruation, responses included the following:

Not yet! And glad of it!

It's good to have the first at 13. It's kind of late , I guess, but the later the better, more educated about it and have less no. of times.

Not a great experience.

I was really scared and freaked out, now I'm fine.

I was so scared.

I really wish I didn't have it. It really gets in the way with my social life. I would have liked it to come in a few years or so.

I hate it! It really sucks! Why don't guys get it.

Too early.

Hated it!

These responses seem to reflect western society's attitudes toward menstruation, which to date tend to be characterized by shame and embarrassment (Delaney et al., 1988). The present study was not designed to explore the meanings and implications of menarche for mothers and daughters, nor did the researcher attempt to discover the effect of the onset of menarche on the mother-daughter relationship. Comments made by participants indicate that these issues are relevant and often problematic for contemporary adolescent girls.

Reactions by Participants to Study

The present study was designed as an exploratory investigation of relationships between the variables of self-esteem, gender role identity and body image in adolescent girls and their mothers. The design reflected the purpose of the study: data were collected and analyzed in an effort to explore relationships between variables. Instruments were chosen on the basis of their reliability and validity, as well as their ease of distribution and completion. As such, the design and instrumentation were determined to meet the requirements of the investigation to a satisfactory degree.

Some respondents expressed a certain amount of frustration, both with the design of the study and the instruments utilized. For example, the researcher received a

number of telephone requests for greater involvement in the study; participants stated that the instruments limited their ability to express themselves. Because in the majority of cases daughters were contacted first, some parents expressed a desire for direct contact with the researcher prior to participation, by telephone and or in writing.

Reactions among the majority of participants to the study was enthusiastic, and often interested and curious. Some participants contacted the researcher by telephone to request details on the purpose and scope of the study and to offer their participation in future research in this area. Most requested that the results of the study be made available to them. It was concluded, therefore, that the topic of body image, particularly in the context of the mother-daughter relationship was of considerable significance to those contacted.

The level of enthusiasm expressed by many participants, and their requests for the results in the study was interpreted as an indication that participants felt that the subject matter was relevant and had significance in their lives. Daughters were most articulate in their responses to the study. For example:

I hope your research is successful because it sounds like a good topic.

I think that this is an important study. I, myself have often been unsatisfied with myself physically but so far I haven't been so desperate as to throw up or anything. I know my friends haven't always been so lucky.

Finally someone does this! Good idea.

This was a fun quiz. At times I found it hard to answer.

I think that studies like these are very important in helping me and others realize that each person in the world is different, mentally, emotionally, and physically. Thanks.

I think that this test is good at making people see what they don't like about themselves.

This study interests me greatly. Please continue to send me the questionnaires. Thanxs!

Implications for Further Research

Because this study was exploratory in nature, it was useful in identifying critical issues in the area of body image development. A comprehensive study of this area would require random sampling and more rigorous design, including both quantitative and qualitative methods, so that the issues of body image, self-esteem, and gender role identity might be addressed in depth. Recommendations for future research are as follows:

- (1) Based on the finding that for adolescent girls, self-esteem and gender role identity are related to body image, more research which investigates the relationships between these variables in further depth is required. Thus research is required which allows the researcher to examine the extent to which these variables affect the development of body image. Traditionally, body image research has involved the use of quantitative measures which attempt to measure participants' degree of distortion in body size. A design which explores the affective component of body image, and its relation to other variables such as self-esteem would address the dearth of research and understanding in this area. The development of a valid and reliable measure which taps the affective component of body image for both female adolescents and adult women is therefore recommended. Alternatively, a qualitative method which allows participants to express their perceptions in detail would provide investigators with valuable data on the relevance of body image, and how it is related to the variables identified in the present study.
- (2) Based on the differences between pre-menstrual and menstrual girls identified by the present study, research on the impact of the onset of menarche on body image, and on overall identity development is required for a greater understanding of female adolescent development. It is

recommended that this research is undertaken in the context of the mother-daughter relationship. A longitudinal design, which allows the researcher to follow adolescent girls and their mothers through the developmental process surrounding the onset of menarche is therefore recommended.

(3) Based on the finding of a significant relationship between mothers' and menstrual daughters' scores on body image and self-esteem, further research is recommended which investigates the interactional nature of the development of the midlife mother-adolescent daughter. A structured interview approach, which allows the researcher to investigate the individual and interactional processes of adolescent daughter-midlife mother pairs would provide information on body image in the context of the relationship between mothers and daughters. Alternatively, a quantitative, longitudinal design is recommended so that the relationships between the previously identified variables might be examined as mid-life mothers and adolescent daughters experience the developmental transitions of this stage.

Because body image is a vital component in identity formation, research in this field has far-reaching implications for many fields, including eating disorders, sexuality, relationships, and education. As such, it may serve to aid professionals and clinicians in many areas, not

only in terms of the treatment of disorders, but in prevention of potential difficulties, particularly those encountered by mothers and daughters as they struggle to address and resolve developmental tasks and transitions. An understanding of the relationships between variables would allow clinicians to view body image in the context of the relationships that exist with self-esteem and gender role identity. In this way, various aspects of development such as body image or self-esteem may be addressed individually, or in terms of their relationships within a developmental context.

Recommendations for Counselling

The present study has implications for family counsellors and counsellors of adolescent girls. Based on the evidence demonstrating relationships between mothers and daughters on the variables of body image and self-esteem, counsellors of adolescent girls may better address their clients' concerns in the context of the mother-daughter relationship. As such, the counsellor may choose to include the mother in counselling sessions. For example, this approach may be of use in situations where both mother and daughter are experiencing difficulty in dealing with the daughter's sexuality. Issues of body image and self-esteem may be salient for both mother and daughter, as well as issues concerning the daughter's increasing independence and

autonomy. Inclusion of the mother in counselling sessions, along with an awareness of the implications of these issues for both mother and daughter, may allow the counsellor to facilitate the developmental processes of both clients by addressing the developmental issues salient to mother and daughter. In this way, the needs of both mother and daughter might be met, and the relationship itself enhanced.

Counsellors who encounter adolescent clients experiencing difficulties in facing developmental tasks such as adjustment to pubertal changes may integrate information provided by this study into their interventions. For example, in addressing the issue of negative body image, the counsellor may investigate the client's menarchal status, self-esteem, and gender role identity. Sensitivity to issues of body image may allow the counsellor to detect potential difficulties in various areas, including the area of eating disorders, and to intervene accordingly. As well, the counsellor may use this information to anticipate difficulties in younger clients, and therefore be able to take preventative measures. For example, a counsellor may recognize difficulties in body image or gender role identity in a pre-menstrual girl, and may use this information to address the issues surrounding the onset of menstruation in order to offset potential difficulties in the future.

The negative comments concerning menstruation offered by the adolescent participants in this study indicate that the onset of menstruation may be a source of shame and fear for many girls. This information points to a need for counselling interventions to address these attitudes. Targets for interventions may include pre-menstrual girls and girls who have recently experienced the onset of menarche so that they may express their attitudes and fears, and be offered support, validation, and alternative points of view. As well, adolescent boys may benefit by counselling or education on the topic of menstruation, in order to demystify the experience of menstruation, and to allow boys to feel included and therefore less fearful of the process and its implications. Finally, family counselling may aid family members, particularly mothers, to express their attitudes, and perhaps may encourage families to support their adolescent girls in acquiring a positive and healthy attitude toward menstruation.

Finally, it is recommended that counsellors and educators implement information provided by previous research and the present study in order to prevent potential difficulties among adolescents in the areas of body image and self-esteem. An understanding of the various components which may affect adolescent development and how these components are related, may be used to educate young

adolescents as they enter this stage. For example, information on the physical and psychological effects of the onset of menarche may aid adolescent girls to address issues of body image and gender role identity by providing insight into the normal developmental changes and their implications. Adolescent girls may then be able to anticipate developmental tasks with a greater understanding of how these changes may affect them physically and psychologically. In this way, the counsellor or educator may use available information to prevent potential difficulties from arising. As well, this information may be presented to older adolescents in the classroom or in counselling settings, in order to provide insight into the nature of the developmental processes they are currently experiencing, and to open an avenue for discussion. In this way, adolescents and their families may be better equipped to address issues related to the difficult and sometimes problematic developmental transitions of adolescence.

Conclusion

The results of the present study have raised several issues. First, they support evidence presented through previous research that self-esteem and gender role identity are related to body image for adult women and adolescent girls. That is, results obtained in the present study indicate that for mothers and menstrual daughters, higher

self-esteem and higher ratings on femininity were related to more positive body image. Second, the relationships evident between variables were different for menstrual and pre-menstrual girls. This study therefore identified differences in the relationships between variables based on menarchal status. For pre-menstrual girls, gender role identity was found to be the only variable associated with body image. Like menstrual girls, higher femininity was found to be associated with more positive body image for this sample. Finally, evidence was presented that revealed relationships between mothers' and daughters' scores on the above variables. In particular, a positive correlation was found for body image and self-esteem scores between mothers and menstrual daughters. These results support findings from previous research that the mother-daughter relationship may be a critical component of the daughter's development, particularly at adolescence.

On the basis of the findings of this study and of previous studies, it can be argued that self-esteem, gender role identity, and menarchal status are important components in the development of body image at adolescence. Furthermore, the dynamic interactional nature of the mother-daughter relationship seems to act as a vital context in which overall identity, including body image develops. The nature of the relationships between these factors may

therefore affect the developmental processes of both mother and daughter.

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APPENDIX A

Demographic information: Please answer the following questions. Your answers will be held in the strictest confidence.

Mothers

1) Date of birth: _____

2) Height (feet/inches) _____
Weight (pounds) _____

3) Highest level of education completed:

elementary school _____
high school _____
college _____
university _____
post-graduate _____

4) Present employment status:

paid full time _____
paid part time _____
unemployed _____
homemaker _____

Occupation: _____

5) Were you employed during the first 5 years of your daughter's life?

yes _____
no _____

6) If so, were you employed:

paid full time _____
paid part time _____

Occupation _____

7) Combined family income:

less than \$25,000 per year _____
 \$26,000 - \$35,000 per year _____
 \$36,000 - \$45,000 per year _____
 \$46,000- \$50,000 per year _____
 more than \$50,000 per year _____

8) Who lives in your household? Please indicate numbers where applicable.

mother _____
 father _____
 daughter _____
 son _____
 stepdaughter _____
 stepson _____
 grandmother _____
 grandfather _____
 foster child _____
 stepmother _____
 stepfather _____
 other (specify) _____

9) Has your family situation changed significantly in the past 2-3 years? (eg., divorce, additoin of a family member, lossof a family member)

yes _____
 no _____

If so,
 describe _____

10) Do you regularly participate in a religious organization?

yes _____
 no _____

Faith or
 denomination: _____

Frequency of
 participation: _____

11) Do your children regularly participate in a religious organization?

yes _____
no _____

Faith or
denomination: _____

—

Frequency of
participation: _____

12) What is your ethnic
heritage? _____

13) What is your daughter's ethnic
heritage? _____

14) Are you or is your daughter currently being treated for
a mental health concern?

Explain _____

Thank you for your participation in the study. If you would
like information on the results of the study, please send a
note with your name and address to:

Sonia Usmiani
308-2211 West 2nd Ave.
Vancouver, B.C.
V6K 1H8

I would be happy to send you the results as soon as they
become available.

Yours truly,

Sonia Usmiani

APPENDIX B

Demographic information: Please answer all questions. Your answers will be held in the strictest confidence.

Daughters

- 1) Age _____
- 2) Grade _____
- 3) Height (feet/inches) _____
Weight (pounds) _____
- 4) Do you have any brothers and sisters?
yes _____
no _____

If so, please indicate

number of sisters _____ ages of sisters _____
number of brothers _____ ages of brothers _____

- 5) How old were you when you had your first menstrual period? _____

Comments: _____

Thank you for participating in the study. If you would like information on the results of the study, please send a note with your name and address to:

Sonia Usmiani]
308-2211 West 2nd. Ave.
Vancouver, B.C.
V6K 1H8

I will be happy to send you the results of the study as soon as they become available.

Yours truly,

Sonia Usmiani

APPENDIX C

Below is a list of a number of personality characteristics. We would like you to use those characteristics to describe yourself, that is, we would like you to indicate, on a scale of 1 to 7, how true of you each of these characteristics is. Please do not leave any of characteristics unmarked.

1	2	3	4	5	6	7
Never or almost never true	Usually not true	Sometimes but infrequently true	Occasion- ally true	Often true	Usually true	Always or Almost Always true
___ Defend my own beliefs				___ Have leadership abilities		
___ Affectionate				___ Eager to soothe hurt feelings		
___ Conscientious				___ Secretive		
___ Independent				___ Willing to take risks		
___ Sympathetic				___ Warm		
___ Moody				___ Adaptable		
___ Assertive				___ Dominant		
___ Sensitive to the needs of others				___ Tender		
___ Reliable				___ Conceited		
___ Strong personality				___ Willing to take a stand		
___ Understanding				___ Love children		
___ Jealous				___ Tactful		
___ Forceful				___ Aggressive		
___ Compassionate				___ Gentle		
___ Truthful				___ Conventional		

APPENDIX D

After carefully reading each of the statements on the following pages, please circle the number which indicates how well the statement describes you. Each number goes with a category telling whether it describes you VERY WELL (1), WELL (2), FAIRLY WELL (3), NOT QUITE (4), HARDLY (5), NOT AT ALL (6). There are 11 statements. Please respond to all of them. Remember, there are no right or wrong answers.

- | | |
|----------------------------|-------------------------------|
| 1-Describes me very well | 4-Does not quite describe me |
| 2-Describes me well | 5-Hardly describes me |
| 3-Describes me fairly well | 6-Does not describe me at all |
-
- | | | | | | | |
|---|---|---|---|---|---|---|
| 1.I am not satisfied with my weight | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.Most of the time I am happy with the way I look. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.In the past year I have been very worried about my health | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.I wish that I were in better physical condition | 1 | 2 | 3 | 4 | 5 | 6 |
| 5.I am uncomfortable with the way my body has developed | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.I am proud of my body | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.I am satisfied with my height | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.I frequently feel ugly and unattractive | 1 | 2 | 3 | 4 | 5 | 6 |
| 9.When others look at me, they must think that my body did not develop well | 1 | 2 | 3 | 4 | 5 | 6 |
| 10.My body developed the way I would have liked it to | 1 | 2 | 3 | 4 | 5 | 6 |
| 11.I feel strong and healthy | 1 | 2 | 3 | 4 | 5 | 6 |

APPENDIX E

After carefully reading the statements on the following page, please circle the number which indicates how well the statement describes you. Each number has a category telling whether it describes you VERY WELL (1), WELL (2), FAIRLY WELL (3), NOT QUITE (4), HARDLY (5), NOT AT ALL (6). There are 11 statements. Please respond to all of them. Remember, there are no right or wrong answers.

- | | |
|----------------------------|-------------------------------|
| 1-Describes me very well | 4-Does not quite describe me |
| 2-Describes me well | 5-Hardly describes me |
| 3-Describes me fairly well | 6-Does not describe me at all |
-
- | | | | | | | |
|---|---|---|---|---|---|---|
| 1.I am not satisfied with my weight | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.Most of the time I am happy with the way I look | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.In the past year I have been very worried about my health | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.I wish that I were in better physical condition | 1 | 2 | 3 | 4 | 5 | 6 |
| 5.I am uncomfortable with the way my body is developing | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.I am proud of my body | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.I am satisfied with my height | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.I frequently feel ugly and unattractive | 1 | 2 | 3 | 4 | 5 | 6 |
| 9.When others look at me they must think that I am poorly developed | 1 | 2 | 3 | 4 | 5 | 6 |
| 10.My body is growing as quickly as I would have liked it to | 1 | 2 | 3 | 4 | 5 | 6 |
| 11.I feel strong and healthy | 1 | 2 | 3 | 4 | 5 | 6 |

APPENDIX F

Answer the following questions by circling the number which best represents how you feel.

Strongly disagree.....1
 Disagree.....2
 Agree.....3
 Strongly Agree.....4

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

APPENDIX G

Sonia Usmiani
308-2211 West 2nd. Ave
Vancouver, B.C.
V6K 1H8
Telephone: 733-6842

Dear Volunteer,

As a graduate student of counselling psychology at the University of British Columbia, I am interested in investigating personality variables and body image in women and girls. I am including adolescent girls and their mothers in my study. The study is being conducted under the supervision of Dr. J. Daniluk, who can be reached at 228-5768 to answer any questions you might have.

If you participate in the study, you will be asked to fill out four questionnaires on your own time and mail them to me. It will take approximately one hour to answer the questions. All information on the questionnaires will be held in the strictest confidence. Through the use of code numbers, all information will remain anonymous. Your consent to participate in the study will be assumed if you return the completed questionnaires to me. If you would like a copy of the results, send a note to me at the address indicated above, and I will mail them to you as soon as they become available.

Your participation in the study is entirely voluntary. You are free to terminate your consent and withdraw your participation at any time. As well, if you have questions about your participation in the study, you are free to contact me or Dr. J. Daniluk at any time.

I hope that you will find your participation in the study interesting and informative, and that the results of this study will be beneficial both to you and to other women.

Should you have any questions about the study, or want to sign up for participation, please contact me at 733-6842. Thank you for your help.

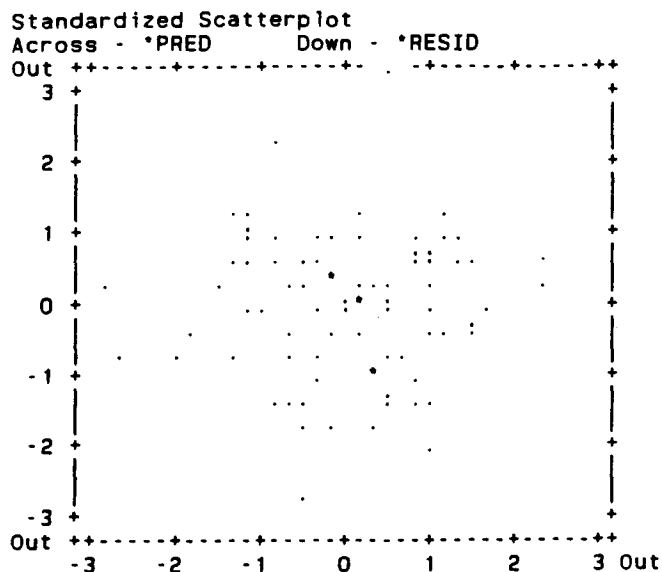
Yours truly,

Sonia Usmiani

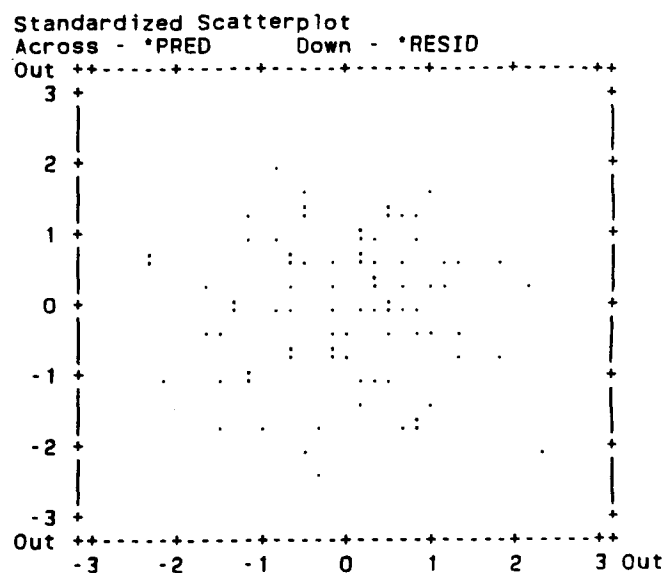
APPENDIX H

Standardized Scatterplot Diagrams for
SIQYA scores

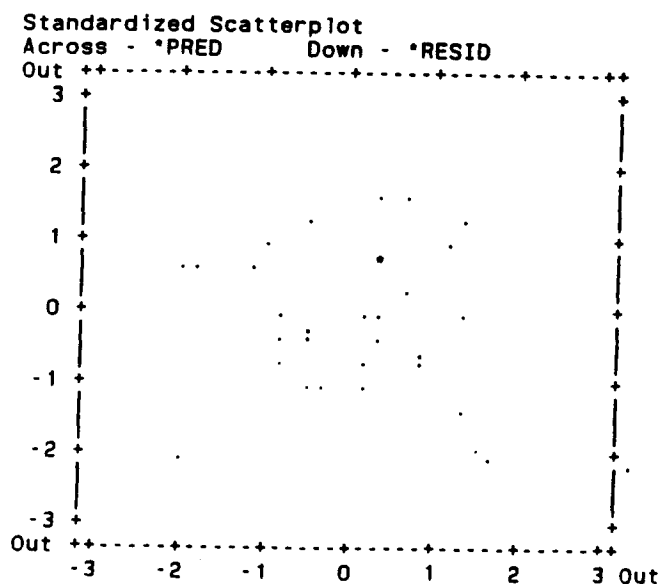
Sample I/ Daughters



Sample I/ Mothers



Sample II/ Daughters



Sample II/ Mothers

