

COMPETITION AMONG WOMEN: CORRELATES AND PROTECTIVE FACTORS

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## DEDICATION

To my husband Jonathan, thank you for your endless patience, technical expertise, loving support, and constancy. You have helped with this accomplishment in so many ways, and I share it with you.

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## ABSTRACT

KRISTIN HARRIS-MCDONALD

COMPETITION AMONG WOMEN: CORRELATES AND PROTECTIVE FACTORS

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Negative competition among women has been conceptualized as a negative and destructive desire to be superior to others, which has been theorized to involve attracting men, gaining power, or simply being better than others (Harris-McDonald & Mollen, 2006). Competition among women has been theorized to be detrimental to women's relationships with each other (Romney & Goli, 1991), to perpetuate myths of women as devious and petty (Brown, 2003), to contribute to a lack of support for women's issues (Cowan, Neighbors, DeLaMoreaux, & Behnke, 1998), and to maintain patriarchal societal structures (Meginnis & Bardari, 2000).

The present study focused on an examination of competition among women and its relationship with the variables of self-esteem, friendship intimacy, feminist identity development, hostility toward women, ethnicity, and age. In addition, the study examined the potential moderating function of the aforementioned variables on the relationship between competition among women and other variables. The research sample consisted of 563 diverse women from college and community populations. Participants completed an on-line survey containing questionnaires that assessed the variables listed above.

As predicted, results demonstrated that competition among women was negatively associated with feminist identity development, self-esteem, and age, and positively associated with hostility toward women. Results failed to support a negative relationship between competition among women and friendship intimacy. Contrary to predictions, results indicated no significant differences in levels of competition among women based on ethnicity. In addition, self-esteem and age were found to impact the relationship between competition among women and hostility toward women, respectively, by enhancing the relationship. However, moderating functions of the other study variables were not found.

While preliminary, findings suggest that competition among women is related to important variables that may impact the psychological health of women. The results indicate the need for increased investigations of variables related to competition among women. Implications for theory, research, and clinical practice are presented, along with limitations and suggestions for future research.

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## CHAPTER I

### INTRODUCTION

Some women have compared their own appearance to other women's. Other women have gossiped about their female work colleagues. Still other women have felt the need to be better mothers than other women. These examples have been referred to as part of negative competition among women, which has been theorized to be prevalent in United States society. Competition has been found in areas such as relationships with other women, work, motherhood, school, and anywhere where achievement, jobs, power, and love have been at stake (Eichenbaum & Orbach, 1988; Keller & Moglen, 1987).

As intimated above, negative competition among women has been posited to be common and to affect many areas of women's lives. Also, although competition has been postulated to have the potential to be a positive force in women's lives (Lugones & Spelman, 1987; Miner, 1987), the current study focused on negative competition among women. Competition has been viewed as negative due to its capability of polarizing women against each other and of influencing others to see women as catty, petty, and hostile. For example, if women thought that other women were attempting to attract their partners, the women might have voiced mean statements about the other women because they were worried their relationships with their partners were threatened. Thus, the women may have been seen as mean and petty, since they condemned the women about whom they were speaking.

Because of everyday examples like the one listed above, people have viewed women as devious and narrow-minded, which has existed as a stereotype of femininity (Tannenbaum, 2002). Because women have been seen as conniving and mean to each other, there has been little reason for others to believe that women could work together or that they were truly sisters as espoused by feminists (Keller & Moglen, 1987; Tannenbaum). There has also been no cause for women to think they will be treated well by other women, which has served to discredit the women's movement and threaten women's relationships by making women seem like adversaries.

However, Brown and Gilligan (1992) have theorized that women were indirect when they competed with other women, because being direct was discouraged among women; this indirect competition was postulated to create tension and problems in women's affiliations with each other. In addition, researchers have demonstrated that women's competition must be indirect for a society to be content since societies were less threatened and happier if women were less competitive than men (Van de Vliert & Janssen, 2002). This idea has afforded a reason why women may be indirectly competitive.

Unresolved negative competition among women has been theorized to destroy women's relationships with each other, prevent women from having power in their lives in areas such as work and relationships, and inhibit women from reaching their full potential (Tannenbaum, 2002). Many women have reported engaging in negative competition with other women (Barash, 2006; Cashdan, 1998; Harris-McDonald & Mollen, 2006; Joseph, 1985). As such, it has become important to determine the extent to

which women compete, and the ways that competition has been detrimental in women's lives. For example, increased competition among women over appearance has been shown to contribute to eating disorders for some women (Burckle, Ryckman, Gold, Thornton, & Audesse, 1999; Faer, Hendricks, Abed, & Figueredo, 2005; Striegel-Moore, Silberstein, Grunberg, & Rodin, 1990). Additionally, competition among women has been postulated to result in emotional sacrifices (Romney & Goli, 1991), such as lack of intimacy in friendships with other women.

Women who have experienced jealousy and envy from other women have reported that they became less open and more shielded from other women (Litwin & Hallstein, 2007) and suffered increased anxiety in response to competition (Johannessen, 1992). Conversely, women who have admitted to competing in a negative fashion with other women have found it challenging to acknowledge their own use of negative competition (Johannessen; Rind, 2002), and may have experienced guilt and apprehension around the issue of competition with other women (Dimen, 1994).

Women's attention to competing negatively has served to keep them preoccupied and distant from other issues of importance, such as women's role in society. In fact, competition among women may have encouraged maintenance of the status quo by keeping women in a subordinate position in society (Chesler, 2001) and by encouraging a lack of support for other women, such as in political elections (Meyer, 1988). When women have fought against each other, they have held themselves and other women back and have impeded women's advancement.

The examination of competition among women has become particularly important because women have continued to be subordinate to men in society and have continued to hurt each other by negative competition. Characteristics over which women compete, such as beauty, have been distracting and divisive and thus have contributed to women's lack of support for women's issues (Cowan et al., 1998) and the maintenance of patriarchal structures (Grossman, 2003; Travis, Meginnis, & Bardari, 2000). Theorists have postulated that a discussion of women's competition with other women must be undertaken so as not to perpetuate a myth that all women or all feminists must be good and never compete (Dimen, 1994) and to address the stereotype of women as devious and petty (Brown, 2003). Women in general, as well as feminists specifically, have avoided the discussion or acknowledgment of competition between women, and have assumed that there is no place for competition in women's lives (Longino & Miner, 1987); however, this avoidance has denied the reality that women have competed among themselves for a variety of reasons.

In the 1980s, awareness and discussion about competition among women came into the feminist community, spurred by the publication of Longino and Miner's (1987) discussion of feminism and competition. Other publications soon followed, such as Eichenbaum and Orbach's (1988) elucidation of competition in women's friendships and Tracy's (1991) account of competition among women. Although these authors illuminated the notion that women have competed with each other in destructive ways, the study of competition among women has waned since that time. More recently, several authors have published books that have detailed competition and negativity among

women (Barash, 2006; Chesler, 2001; Fillion, 1996; Tannenbaum, 2002). However, while these accounts have illustrated the everyday competitive interactions women experience with each other, they have not empirically examined the phenomenon of competition among women.

Previous studies have examined women's competition with each other and have viewed competition as a struggle for women because of their supposed relational orientation, as opposed to an individual competitive orientation (Johannessen, 1992). Past studies have also demonstrated that women have scored lower on interpersonal competition measures than men have (Griffin-Pierson, 1988; Helmreich & Spence, 1978). One reason women may have scored lower than men on interpersonal competition measures may have been because a tension between relational and individual competitiveness has existed for women. Alternatively, Griffin-Pierson (1990) has suggested that women score lower than men due to society's greater acceptance of men's expression of competition. In fact, the presence of competition in men has been found to be interpersonally attractive (Riskind & Wilson, 1982).

Women's lower scores on competition measures could also have been due to the way that competition has been assessed in current competition inventories. As will be explained further in the literature review, competition among women has been conceptualized to be a different construct than competition in general, and it has been theorized to include interpersonal competition. Harris-McDonald and Mollen (2006) developed a scale to measure competition among women, and they conceptualized competition among women as involving interpersonal competition directed specifically at

women. No research to date has used Harris-McDonald and Mollen's scale to study competition among women in greater depth. Therefore, the current study utilized Harris-McDonald and Mollen's scale. Women in particular were investigated since so little research has been done with women and competition in general, and competition among women in particular.

Heterosexual women were studied as opposed to women who espoused other sexual orientations, such as asexual, bisexual, and lesbian women, due to the nature of the construct of competition among women. Previous research has indicated that competition among women includes competition for the attention of men (e.g., Pogrebin, 1987), among other forms of competition to be described further in the literature review. Since the non-heterosexual groups were not logically inferred as competing exclusively for men's attention, it was necessary for this preliminary study of competition among women to be limited to heterosexual women. In fact, previous studies regarding negativity in women's relationships with each other also limited participation to heterosexual women, due to a focus regarding romantic relationships with men (Cowan & Ullman, 2006). Additionally, lesbian women were found to focus less on physical attractiveness than heterosexual women (Siever, 1994); moreover, lesbian and bisexual women's communities were postulated to have different appearance norms than heterosexual women's communities, who were thought to adhere to the dominant culture's beauty standards (Myers, Taub, Morris, & Rothblum, 1998).

Two added considerations were, first, that lesbian, bisexual, and other-sexually oriented women have been theorized to have different experiences than heterosexual

women in their same-sex friendships (Rose & Roades, 1987; Taylor, 1994). It was noted that intimacy in same-sex friendships was a variable of interest in the current investigation. Second, women who were not heterosexual were found to view sexism differently than heterosexual women, in that they tended not to view sexism as the base of gender inequality (Rich, 1993); in fact, a scale has been developed to exclusively measure lesbians' feminist attitudes (Simoni, Henley, & Christie, 1999). Since feminist identity development was a variable in the study, nonheterosexual women's unique perspective of feminism may have obscured the results of the present study.

The above emphases on the necessity of including only heterosexual women's experiences of competition did not mean that women who are bisexual, lesbian, or of other sexual orientations did not compete among each other. However, due to their possible romantic affiliation with other women, nonheterosexual women's experiences of competition among women may have differed from heterosexual women's experiences. In addition to the points listed above, theorists and researchers have focused on heterosexual women in the area of competition among women up to this point (Cashdan, 1998; Harris-McDonald, 2006; Joseph, 1985). Thus, this study also concentrated on heterosexual women's experiences of competition among women.

Furthermore, in the current study, competition among women was examined in the United States as opposed to other cultures. The United States culture has emphasized competition in many aspects of life. People in the United States were found to think that they must be competitive in order to preserve their self-esteem (Vance & Richmond, 1975). In an individualistic culture that has stressed personal over group gain, people

have competed with others for the best resources. In addition, the United States culture has stressed that accomplishments produce personal worth (Sue & Sue, 2003) so that people have competed to be better than other people in order to feel valuable. Other cultures that have been found to be more collectivistic have not emphasized competition as much as the United States.

Individuals who have collectivistic orientations have focused on the interdependence of their own lives with the lives of others, and have tended to view themselves as adaptable, whereas those from individualistic orientations have considered themselves as having a more secure sense of self and have been inclined to be independent from others (Twenge & Crocker, 2002). Additionally, collectivistic cultures have valued groups more than individuals (Sue & Sue, 2003), so that individual competition may have been less likely in collective societies, or in those who have identified with such societies. In fact, adherence to collectivistic values such as dependence, appreciation of family, and an ethic of care for elders has been found in Asians (Chang & Holt, 1991), Latinas (Negy, 1993), and Blacks (Robinson & Howard-Hamilton, 1994). Thus, it has been theorized that individuals from collectivistic cultures are less likely to compete for individual resources. Consequently, people in the U. S. have been presumed to be more competitive than those in other cultures. However, competition itself has been evident in countries such as China and Zambia that have adopted Western standards, whereas before Westernization, they were less competitive societies (Glazer, 1992).

Logically, it has been presumed that competition among individual women should be more prevalent in the United States and other individualistic countries, but competition among women has also been documented in other cultures. Competition among women has been evidenced in Argentina (Hines & Fry, 1994) and other South American countries (Rucas et al., 2006), as well as in Zambia and China (Glazer, 1992), although the latter two countries have adopted a more Western viewpoint. Madhavan (2002) studied the African country of Mali, where polygyny, the practice of having more than one wife or female mate at one time, was practiced. Thus, in Mali, competition among women for men and their resources was higher than in cultures where polygyny was not practiced. Here, two ethnic groups existed called the Bamanan and the Fulbe. The Fulbe co-wives were more competitive with each other because they valued wealth and physical attractiveness and were expected to fight to retain a husband, which promoted jealousy among women. The Bamanan, on the other hand, frowned upon jealousy and shared chores and child-rearing, which made them less jealous and less competitive with their co-wives. The author concluded that the difference between these two groups was that the Bamanan co-wives realized they could benefit by working together, cooperating, and supporting each other, while the Fulbe lacked this recognition.

This evidence suggested that countries other than the United States elicited competition among women, even if they were not as individualistically focused. Since women in the United States and other cultures have shown evidence of competition among women, this evidence has insinuated that the construct of competition among women might not have been tapped by current competition measures. Although

competition among women has been documented in other cultures, many current and previous accounts of competition among women have focused on women in the United States (Barash, 2006; Briles, 1987; Chesler, 2001; Harris-McDonald & Mollen, 2006; Johannessen, 1992; Joseph, 1985; Keller & Moglen, 1987; McMurtry, 1994; Tannenbaum, 2002; Tracy, 1991; Yvonne, 1987) and Britain (Cashdan, 1998), which have both been characterized as individualistic cultures.

The current study focused on women in the United States for several reasons. One reason was that the researcher was part of the United States culture and thus could more easily gain research participation from women in that culture. A second reason included that United States has been viewed as an individualistic culture that fosters competition, so women in this culture might have been more likely to be competitive with other women than those in collectivistic cultures. Although women in the U.S. have been postulated to have a number of advantages in comparison to women in some other countries, when it comes to competition among women, the individualistic nature of U.S. society may have contributed to additional pressures to compete. Also, little research on competition among women as a distinct construct has been conducted, so further research of the construct in the United States has been warranted.

In the current study, the construct of competition was studied as an individual variable, as opposed to a group variable. Because the U.S. has been found to be an individualistic society, competition between individuals, or in-group competition, was conjectured to be more prevalent than competition among groups, or out-group competition. In fact, in-group partiality and out-group distrust were theorized to be

associated with out-group competition (Brewer, 2007), which reflected the idea that cultures that encouraged competition with other groups were more likely to compete at a group level than at an individual level. Collectivistic societies have valued group needs more than individual needs (Sue & Sue, 2003; Twenge & Crocker, 2002). Thus, individuals from collectivistic societies have been posited to be more likely to compete on a group level, rather than an individual level. Researchers have demonstrated that individuals from collectivistic cultures, such as Brazil, were less likely than individuals from individualistic cultures, such as the U.S., to engage in competition at an in-group level (Santos-Pearson, 1996). In addition, researchers have shown that U.S. individualism includes viewing in-group goals as inferior to individual goals (Triandis, 1989); therefore, individuals from the U.S. were speculated to be more likely to engage in in-group competition, such as when women compete with other women. Thus, the study of competition as an individual variable, as it was studied the present investigation, may have differed from the study of competition as a group variable.

The primary purpose of the current investigation was to extend knowledge regarding the construct of competition among women by examining variables that may have been related to the construct; because the study of competition among women specifically has been so limited, the psychological and sociological correlates of the construct have not been elucidated. In an effort to broaden the study of competition among women, the women in the study were diverse in terms of ethnicity and age, so that generalizations could be made about the general population of U.S. women, based on the study's sample. The investigation also presented an opportunity to broaden the research

area of competition among women by using the standardized Competition Among Women Scale (CAWS; Harris-McDonald & Mollen, 2006), so that the study's results could be compared to past and future research.

In relation to competition among women, the variables that were examined in the current study included friendship intimacy, hostility toward women, feminist identity development, self-esteem, ethnicity, and age. It was important to study each variable's possible effect on competition among women in order to gain a clearer picture of the potential destructive nature of competition among women in women's lives, such as its likelihood of being associated with less intimacy in friendship (i.e., Bevan & Samter, 2004; Gali-Alfonso, 2005), increased hostility toward other women (i.e., Cowan et al., 1998; Cowan & Ullman, 2006), lower levels of feminist identity development (i.e., Chesler, 2001; Schaef, 1981), and lower levels of self-esteem (i.e., Eichenbaum & Orbach, 1988; Tannenbaum, 2002). In addition, it was important to investigate whether women of diverse ethnicities and ages varied in their levels of competition among women to determine if age and ethnicity affected levels of competition.

Each of the above variable's relationship with competition among women has been posited to hold implications for the quality of women's lives. For example, if lower friendship intimacy was associated with higher levels of competition among women, then competition may have interfered with the closeness of women's friendships. Thus, it was theorized that the study of these particular variables could yield valuable information about positive and negative aspects of women's relationships and lives.

In addition, a second component of the present study's research questions was that certain variables of interest may moderate the relationship between competition among women and other variables in the study. A moderator variable has been explained to be a variable that affects the relationship between two other variables, if it is unaccounted for (Saunders, 1956). For instance, self-esteem may have served as a moderator between the relationship of competition among women and hostility toward women, so that the association of the latter variables may have been impacted by the self-esteem variable. Examining moderator variables has been held to add complexity to the investigation of variables of interest (Frazier, Tix, & Barron, 2004).

In summary, an examination of the construct of competition among women was important because negative competition has been theorized to be detrimental to women's relationships with other women. Furthermore, negative competition among women may have impeded women's advancement in society, since women who are preoccupied with competing with each other may not have had a desire to work together to improve women's subordinate position in society. Additionally, the current study added to the literature in women's psychology by empirically investigating the relationship of competition among women and several other variables. Thus, the study demonstrated that some variables were correlated with competition among women, while other variables performed a protective function against it. Moreover, the study addressed the stereotype of women as negative in their female relationships. The investigation also afforded clinicians information about competition among women and its related variables so they could aid female clients who experienced difficulty in their female relationships.

## CHAPTER II

### LITERATURE REVIEW

#### Definition of Competition Among Women

The United States culture has focused on the individual, and people have been taught to compete for the best positions in school, the workplace, and most other arenas. Little sense of competition as reaching a goal together has existed. Even sports teams, which have been made up of individuals hoping to reach a goal, have been seen as competing against other teams, instead of striving with their own teammates to achieve a goal. This goal orientation has made it seem as if competition with others has been necessary to be successful in society, which has placed high importance on being personally successful.

The Latin root of the word competition, *competere*, has been stated to mean “to strive together toward” or “to meet” (Miner, 1987, p. 184). The commonly used definition of competition has been posited to mean “to strive against” and has been viewed as notably distinct from its Latin root (Lugones & Spelman, 1987, p. 237). Competition has most often been thought of as a kind of contest to determine who would win a prized possession. In fact, the dictionary definition for the term competition stated that it is “a contest between rivals” or a need of two individuals generated by a scarce resource; another term that has been used to denote competition is competitiveness, which has been defined in the dictionary as a noun meaning “related to, characterized by,

or based on competition” (*Merriam-Webster’s Collegiate Dictionary*, 1990, p. 268).

Therefore, competitiveness has encompassed the qualities of competition, in that competitiveness has emanated from a situation of competition. Consequently, the terms competition and competitiveness have been used interchangeably.

Several researchers have measured competition in general, and definitions of competition in these studies included an interpersonal component of being better than others, winning over others, or gaining pleasure from interpersonal competition (Doob, 1952; Helmreich & Spence, 1978; Horney, 1937; Riskind & Wilson, 1982; Smither & Houston, 1992). Smither and Houston (1992) also included in their definition that competitiveness necessitated the discernment of a rival so that people could compare their own functioning with that of others’. Although other researchers included this piece of competition in their definitions, the very suggestion that competition was interpersonal implied that there must be the presence of another with whom to compare oneself on some aspect.

Others have offered alternative definitions and conceptualizations of competition. Burckle et al. (1999) differentiated competition with an interpersonal component from personal development competition, in which people were concerned with personal satisfaction and learning rather than winning or being superior to others. Burckle et al. held that personal development competitiveness is psychologically healthier than interpersonal competition.

Griffin-Pierson (1988, 1990) presented a slightly different view of competition. In an attempt to take into account what she viewed as women’s relational style, she defined

competition as multidimensional and as either interpersonal or goal-directed.

Interpersonal competition retained the same definition as other researchers used and entailed being better than others, while goal competition was viewed as the desire to do well and reach one's highest potential. Hence, researchers have operationalized general competition in three distinct ways: (1) competition as interpersonal, or being better than others; (2) competition as both goal-directed and interpersonal, where competition can focus both on being better than others and being the best one can personally be; or (3) competition focused on personal development, rather than superiority over others. Thus, as indicated by the second conceptualization, the two forms of competition were not shown to be mutually exclusive.

While these definitions offered initial views of competition, they did not fully encapsulate the negative consequences of competition among women. Nonetheless, evidence demonstrated that competition among women included interpersonal competition. This inclusion of interpersonal competition was evident in that competition among women was defined in previous studies as women wanting to do and be better than other women (Cashdan, 1998; Joseph, 1985; Lugones & Spelman, 1987). As Smither and Houston (1992) held for general competition, in these studies competition among women also included an element of social comparison, whereby women perceived other women as rivals and so felt competitive toward them. Consequently, competition among women has been theorized to include a component of interpersonal competition.

However, women have generally scored lower than men on measures of interpersonal competition (Griffin-Pierson, 1988; Helmreich & Spence, 1978). This

finding could have resulted from the previous scales' more general definition of competition, as opposed to the definition of negative competition among women, which was posited to specifically include negativity toward other women. This result could also have been due to the fact that previous measures of interpersonal competition may not have tapped women's experiences of competition with other women.

In addition, previous scales may not have accurately described women's competition because competition in the U.S. has been conjectured to be unfeminine and less socially acceptable in women (Tannenbaum, 2002). Men, on the other hand, have been expected to be competitive in order to gain rewards and achievements (Pogrebin, 1987). Riskind and Wilson (1982) found that men were viewed as more socially attractive and likable if they were competitive, but they postulated that competitiveness in women led to negative evaluations since competition was inconsistent with the female gender role stereotype. Indeed, it was shown that competitiveness in females is less desirable than competitiveness in males (Spence, Helmreich, & Stapp, 1974; Van de Vliert & Janssen, 2002). Thus, women's knowledge of the undesirability of female competitiveness may have affected their responses on a measure of competition.

Competition among women has been regarded as negative, destructive, and directed toward other women as opposed to people in general (Harris-McDonald & Mollen, 2006). Theorists have largely conceptualized competition among women as a negative form of romantic and/or sexual rivalry for men and power, as well as an attempt to achieve superiority over others (Briles, 1987; Campbell, 2002; Eichenbaum & Orbach 1988; Fillion, 1996; Longino & Miner, 1987; Pogrebin, 1987; Tannenbaum, 2002).

Theorists posited that negative feelings such as envy played a role in competition among women (Eichenbaum & Orbach, 1988; Keller & Moglen, 1987), and competition among women was described as envy changed into a detrimental need to be superior to other women (Tannenbaum, 2002). Dimen (1994) stressed that competition did not occur unless envy was present. Envy has typically occurred between two people and has been viewed as the desire to have what other people have and wishing the other people did not have the desired object or attribute (Cohen, 1986; Maguire, 1997; Parrott, 1991). Envy was also posited to be longing or negative feelings toward envied others (Salovey & Rodin, 1986) or to involve feelings of inadequacy (Barash, 2006; Gali-Alfonso, 2005).

Other negative feelings and behaviors involved in competition among women included jealousy (Barash, 2006; Joseph, 1985) and rivalry (Barash, 2006; Yvonne, 1987). Jealousy involved people wanting to keep what belonged specifically to them (Yvonne, 1987), perhaps prompted by feared loss of an important relationship (Parrott, 1991). Bevan and Samter (2004) stated that jealousy consists of cognitions, emotions, and behaviors after a loss or when self-esteem was in peril. Rivalry, an additional component conjectured to be part of competition among women, was postulated to occur when two people tried to obtain a goal that only one of them could attain or possess (Yvonne, 1987), which juxtaposed with the ideas of competition as a zero-sum game with only one winner and wanting to have what others want, both of which were also theorized to be part of competition among women (Cashdan, 1998; Longino, 1987). These definitions of the elements included in competition among women have made the interpersonal and destructive nature of women's competition evident.

Based on previous research and theories, Harris-McDonald and Mollen (2006) conceptualized competition among women as a negative and destructive desire to be superior to others, which was theorized to involve attracting men, gaining power, or simply being better than others for its own sake. The researchers proposed that competition among women was theoretically different from interpersonal competition, in that it encompassed harmful forms of envy, jealousy, and rivalry. They also posited that competition was directed at other women and included both attitudinal and behavioral components. The attitudinal components of competition among women included negative feelings such as envy and jealousy. It was noted that Harris-McDonald and Mollen's conceptualization assumed that competition among women included competition for men, which assumed heterosexuality in women who were engaged in competition. Thus, while general competition was defined as being better than others and winning over others, it did not necessarily focus on feelings or consequent actions of women who were envious, jealous, or otherwise competitive against other women.

Competition among women, then, has not been theorized to be striving together as the Latin root holds, nor has it been viewed as bringing women together to work toward a common goal. Competition more often has served to distance women from each other and to keep them from moving ahead together. Competition with other women may have been necessary at times in order to procure needed or desired resources such as jobs, but it has been theorized to have the potential to cause damage. Competition has not been viewed as simply harmless bickering with other women, but as detrimental to individual women and women as a whole.

## Content of Competition Among Women

Because competition among women has been postulated to be conceptually different from general competition, it has been viewed as encompassing different content areas than general competition. These content areas have included negative feelings and behaviors such as envy and rivalry. Competition among women has typically been seen as more covert than general interpersonal competition, and when women have competed against each other, they have tended to be more devious and personal (Tannenbaum, 2002).

Competition among women has occurred in diverse areas of women's lives. Women have competed in organized settings such as work and jobs (Barash, 2006; Briles, 1987; Litwin & Hallstein, 2007; McMurtry, 1994; Sagarin & Guadagno, 2004), where resources have been limited for women (Howell, 1974). Other organized settings in which women have competed have been schools or universities (Cashdan, 1998; Green, Richardson, & Lago, 1996; LaSorsa & Fodor, 1990; Sagarin & Guadagno, 2004; Werner & Crick, 1999). Women's competition has also been found in the home as part of relationships with family and friends (Barash, 2006). Women have competed with mothers, daughters (LaSorsa & Fodor, 1990), and sisters (Mize & Pinjala, 2002). Women have also competed within their same-sex friendships (Barash, 2006).

Just as there have been various settings in which women have competed, there have also been many issues over which women have competed, including fertility issues (Eichenbaum & Orbach, 1988), parenting (Blackford, 2004; Chesler, 2001), and children (Blackford, 2004; Chesler, 2001; Fillion, 1996). Competition among women also

emerged when women vied for romantic relationships (Gali-Alfonso, 2005; Johannessen, 1992; Leonard, 2006; Rind, 2002) and in the domain of physical appearance (Ingo, Mize, & Pratarelli, 2007; McMurtry, 1994), including striving for lower weight (Romney & Goli, 1991; Striegel-Moore et al., 1990). Competition among women has been evident in the areas of status and power (Fillion, 1996; Johannessen), including contention for higher grades or a better career (LaSorsa & Fodor, 1990).

Thus, competition among women has surfaced in many of life's common arenas and has therefore been present in many women's lives. The literature has pointed to several content areas and mechanisms by which heterosexual women in particular have competed with each other. These areas have included indirect aggression, attempts at being more physically and socially attractive to men, and other techniques to appear better than other women (Harris-McDonald & Mollen, 2006).

### *Indirect Aggression*

A major way that women have competed with each other is through indirect aggression (Campbell, 2004). Women have used indirect aggression against other women in order to make them look bad or make them weak so that they themselves have appeared superior. The construct of indirect aggression (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992) has also been called relational aggression (Crick & Grotpeter, 1995) and social aggression (Underwood, 2004). However, Richardson and Green (2006) differentiated relational from indirect aggression, stating that relational aggression included direct verbal aggression, such as informing other girls that they were not liked,

while indirect aggression involved social manipulation, such as gossiping behind other girls' backs.

Indirect aggression has been postulated to involve harming individuals by exploiting friendship networks or social status (Lagerspetz, Bjorkqvist & Peltonen, 1988; Underwood, 2004). Thus, indirect aggression did not physically hurt anyone but could have damaged women's reputations or social ties (Crick & Grotpeter, 1995). Girls and women were theorized to deny use of indirect aggression because it was not directly noticeable by others. The implication was that girls and women were able to be unkind to others without having to be overtly aggressive, and in essence could have damaged other women while remaining blameless in the eyes of those who did not notice their actions. However, indirect aggression was quite damaging to other girls and women due to its insidious nature (Simmons, 2002).

Indirect aggression has been studied most often in adolescent females. Adolescent girls have often adopted indirect aggressive strategies because society has viewed open conflict as unacceptable for girls, which in turn has discouraged them from being open with angry feelings or conflict. So, girls learned to use indirect aggression to get what they wanted (Brown, 1998; Brown & Gilligan, 1992; Maguire, 1997). Therefore, girls used indirect aggression to hide emotions such as anger that were deemed unsuitable for girls (Brown, 2003). As girls moved from early to late adolescence, their use of indirect aggression increased (Bjorkqvist, Osterman, & Kaukiainen, 1992; Osterman et al., 1998). In addition, adult women utilized indirect forms of aggression in workplace victimization (Bjorkqvist, Osterman, & Lagerspetz, 1994) and when their children did not win a contest

(Shields & Coughlin, 2000). Adults in society, including older adults, were posited to be more likely overall to use indirect aggression, as society has not usually condoned physical aggression by adults (Lagerspetz, et al., 1988; Walker, Richardson, & Green, 2000).

Although indirect aggression may have appeared more common among girls and women, they have also used direct aggression to address conflict. Studies have reported that direct aggression expressed by girls in U.S. schools was problematic (Talbot, Celinska, Simpson, & Coe, 2002). In fact, while girls aged 8 to 15 reported an overall greater use of indirect aggression than boys, they also reported using direct physical aggression against others, including hitting, pushing, and kicking (Bjorkqvist, Lagerspetz, et al., 1992). Urban girls also indicated that they engaged in physical aggression with other girls, including punching and hitting (Talbot et al.). In addition, in several studies, girls reported that indirect aggression, such as gossip, often preceded their physical aggression (Cairns & Cairns, 1994; Lockwood, 1997; Talbot et al.) Furthermore, women aged 18 to 24 reported engaging in physical aggression with similar-aged acquaintances (George, 1999). Reasons for physical fighting among girls included a perceived confrontation regarding women's supposed promiscuity, rivalry for a romantic mate (Campbell, 1986), and unfounded gossip (Cambell; Talbot et al.).

It has been evident that women exhibited both indirect and direct aggression, although it has been noted that indirect aggression was possibly used by girls and women in order to hurt others while also appearing nice (Brown, 2003). However, this explanation may not have accounted for women from urban communities, who may have

experienced different socialization processes and expectations than women from non-urban communities. The construct of competition among women has addressed only women's use of indirect aggression. A reason for the exclusion of direct aggression has been that society has not condoned direct aggression in women (Lagerspetz et al., 1988; Walker et al., 2000); thus, women in general may have been less likely to use physical aggression to compete among women. Furthermore, given that society has not condoned physical aggression in women, they may also have been less likely to admit to direct aggression with other women.

Additionally, many of the contexts in which women have been theorized to compete, such as schools (e.g., Green et al., 1996; LaSorsa & Fodor, 1990) and workplaces (e.g., Briles, 1987; Litwin & Hallstein, 2007; McMurtry, 1994), have been supervised environments in which women would be sanctioned if they had physically aggressed against other women. Moreover, many of the accomplishments for which women have competed, such as careers (e.g., Briles, 1987) and a better appearance (e.g., Burckle et al., 1999; McMurtry, 1994), have not been able to be obtained by using physical aggression. Also, while girls and young women in urban environments may have been more likely to evidence direct physical aggression, research showed that girls' rates of indirect aggression increased as they became older, and that the incidence of indirect aggression was much higher than direct, physical aggression among girls (Bjorkqvist, Lagerspetz, et al., 1992; Osterman et al., 1998). Thus, direct aggression has been excluded from the construct of negative competition among women.

Although the majority of indirect aggression studies have involved adolescent populations, studies have also been conducted with college populations (Green et al., 1996; Werner & Crick, 1999). These studies have yielded similar results as those with adolescent populations, and all studies have demonstrated the indirect aggressive strategies that girls and women have used against other girls and women. The strategies included gossip, spreading rumors, saying bad statements behind others' backs, and exclusion (Bjorkqvist, Osterman, et al., 1992; Green et al., 1996; Ingo et al., 2007; Owens, Shute & Slee, 2000; Underwood, 2004; Werner & Crick, 1999).

Each of these indirect strategies was used by women in order to influence them to feel superior to other women. Gossip has been mentioned frequently in the competition among women literature and was defined as making a claim about qualities of people or their behaviors that were not necessarily true (Fine & Rosnow, 1978) and was usually about people not present (Eder & Enke, 1991). Women used gossip to compete for various rewards such as jobs and status (Bjorkqvist, Osterman, & Hjelt-Beck, 1994), and gossip was way to conceal envy from other women (Cohen, 1986). Thus, gossip has interfered with openness among women and has been construed as a destructive form of competition between women.

One of the issues about which girls and women gossiped involved girls' bodies (Brown, 2003), which included gossiping about other women's clothes or appearance, such as discussing what other women were wearing at social events (Campbell, 2004; Nevo, Nevo & Derech-Zehavi, 1993; Owens et al., 2000; Pogrebin, 1987; Simmons, 2002). Indirect aggression was also used as a way to deride the way other women looked.

Women cut down other women's appearances by telling others that certain women were fat and ugly and making fun of their body shape and general appearance, as well as telling false stories about them (Buss, 1988b; Buss & Dedden, 1990).

Additionally, girls and women gossiped about the sexual reputations of other women. Women called other women sluts, gossiped about other women's improper sexual behavior, and made others doubt women's reputations (Brown, 1998; Chesler, 2001; Fillion, 1996; Lees, 1993). Women also lied about other women by telling others that they were promiscuous (Buss & Dedden, 1990; Chesler, 2001). Behaviors such as these not only served to tarnish women's reputations but also served to silence other women (Chesler, 2001) so that they could not feel superior. These behaviors have corresponded with the idea of gossip being a mechanism for social control (Eckert, 1990). Gossipers controlled people socially by talking about how people fell outside the culture's norms for acceptable behavior; this made gossipers appear to be better people for not engaging in unacceptable behaviors.

Gossiping about the sexual reputation of other women has been reflective of the U.S. endorsement of the sexual double standard. Women have been stigmatized for being sexually permissive, while men have been rewarded with approval and esteem for sexually permissive behaviors (Oliver & Shibley Hyde, 1993). This double standard has existed because women have been socialized to avoid sex until they are in committed, monogamous relationships; however, men have been encouraged to participate in frequent sexual activity with multiple partners (Sprecher, Regan, McKinney, Maxwell, & Wazienski, 1997). Therefore, when girls and women have gossiped about others' sexual

behavior, they have made others appear bad and thus have evoked the sexual double standard in order to damage other women.

Another indirect aggressive strategy women used in competition to damage other women was exclusion or shunning. Friends of women who were promoted at work cut them off and excluded them from group activities (Eichenbaum & Orbach, 1988). Other women ignored or simply did not speak to women with whom they competed, thus cutting those women off from intimacy (Chesler, 2001).

The indirect tactic of false concern has also been destructive because it was a way for women to be mean if they were jealous of other women (Briles, 1987). Women evidenced false concern when they pretended to be concerned about other women, when in fact they wanted to bring up negative feelings in other women, as when women told their co-workers damaging statements that third parties have allegedly said about them (Fillion, 1996). By having done this damage, women were really trying to prove their superiority since nothing was wrong with them that others might have had a reason to discuss. Women also may have been attempting to repel disapproval from themselves by focusing on the negative qualities of other women (Crothers, Field, & Kolbert, 2005).

In work situations women reported indirect and backstabbing gestures from women, and some women thought they needed to use indirect aggression in order to keep their jobs (Briles, 1987). Women used indirect aggression at work to hold other women down and exclude them so they would not compete for their jobs; this has been termed the Queen Bee syndrome (Staines, Tavris, & Jayaratne, 1974). Many of the techniques discussed here have served to eliminate women who were competitors for jobs. This type

of indirectly aggressive behavior was reported in social situations as well as at work (Briles, 1987).

### *Attractiveness*

Evolutionary psychology has held that women competed over physical appearance (i.e., Campbell, 2002) because men typically valued women's appearance of youth and fertility (Campbell, 2002; Feingold, 1990; Hooks & Green, 1993; Ingo et al., 2007). If women were more attractive than other women, the women might have achieved relationships with men who would have shared their resources with the women, ensured their survival, and thus put them at an advantage over other women. Thus, women have competed through physical attractiveness for men and their resources (Campbell, 2002; Hooks & Green, 1993). It has been noted that the evolutionary focus on women's competition for men and their resources assumed both heterosexuality and a woman's inability to garner resources on her own.

Much of the support for women's competition over attractiveness has been evidenced in research from an evolutionary psychology perspective. Evolutionary psychology has been disparate from feminist theory in its explanation of the causes of behaviors and attitudes. In evolutionary theory, behaviors and attitudes have contributed to reproductive potential, while in feminist theory socialization has played a large role in the etiology of behaviors and attitudes. Feminist theorists have held that society has validated women based on their physical appearance as opposed to other qualities or achievements (Guendouzi, 2004), which has contributed to women's competition over attractiveness. Because society has emphasized female attractiveness, physical beauty has

been an area in which society has encouraged women to compete (Burckle et al., 1999; McMurtry, 1994).

Therefore, feminist writers have also documented that women have competed to be more attractive than other women (Gali-Alfonso, 2005; Johannessen, 1992; Pogrebin, 1987; Tannenbaum, 2002). Other feminist theorists pointed out that women were socialized to be rivals for men's attention (Eichenbaum & Orbach, 1988; Schaefer, 1981), were taught to compete with other women for men (Tracy, 1991), and envied other women if they looked better (Cohen, 1986). Barash (2006) stated that competition for a man created benefits for women, such as increased income; therefore, young, attractive women competed for affluent, powerful men (Grossman, 2003). Therefore, although evolutionary and feminist theorists may have disagreed about the etiology of competition among women, both theories have asserted that women competed with other women to appear more physically attractive in order to gain male approval, in part to gain resources from men.

Women's desire to be attractive to men might have stemmed from the pressures in United States society that have encouraged women to obtain romantic partnerships with men. Russianoff (1981) held that due to socialization, women in Western societies were taught that the most important goal for which they should strive was to have men in their lives. Indeed, some studies demonstrated that life satisfaction was greater for women in relationships with men (Fricke, 2007; Henderson & Cunningham, 1993; Sedikides, Oliver, & Campbell, 1994). However, women's greater life satisfaction when they had relationships with men did not hold for women who were in domestic violence situations;

women who experienced violence in their relationships with men were found to have lower life satisfaction and were more likely to suffer from major depression and posttraumatic stress disorder (Cascardi, O'Leary, Lawrence, & Schlee, 1995; Houskamp & Foy, 1991; Schlee, Heyman, & O'Leary, 1998).

In contrast to women's socialization that having a man is important, men's societal pressures have included the desire for achievements and awards (Pogrebin, 1987). Thus, women have been socialized to want relationships with men, while men have been socialized to desire success in other areas. Additionally, Travis, Meginnis, and Bardari (2000) stated that women's identities have become strongly linked to physical appearance. Therefore, women may have competed with other women over physical attractiveness because it has been a salient feature of their identities. Travis et al. also held that women's focus on physical appearance contributed to their judgment of whether or not other women were behaving appropriately, according to the expected gender role for women.

The concept of sexual jealousy was theorized to be important in the context of competition over physical attractiveness. Sexual jealousy was postulated to occur when individuals feared other people would take away romantic or sexual partners, and therefore the third parties were seen as rivals (Foss & Galloway, 1993; Paul, Foss, & Galloway, 1993). Individuals became jealous when rivals seemed better than they were in some respect (Dijkstra & Buunk, 2002). Thus, sexual jealousy was posited to be part of competition among women since it created the need to be better than other people and was postulated to be destructive.

An important caveat was theorized to be age; although women's competition over appearance seemed to increase, age appeared to play a protective role. If women were older, they were shown to be less jealous of physical attractiveness in other women, perhaps because older women were less likely to compete for men as mates than younger women were (Campbell, 2002; 2004; Dijkstra & Buunk, 2002). Older women may have already acquired mates, whereas younger women may have been more likely to be searching for potential mates.

Women were shown to be envious and jealous of others' clothes and appearance (Hines & Fry, 1994; Tannenbaum, 2002) and also to envy and be competitive over youth, beauty, and attractiveness in other women (Campbell, 2004; Cashdan, 1998; Cohen, 1986; Joseph, 1985). Women also reported distress when rivals were more attractive than they were (Buss, Shackelford, Choe, Buunk, & Dijkstra, 2000; Dijkstra & Buunk, 2002) and were jealous of a rival when she was involved with their partner in a nonsexual capacity (Paul et al., 1993). Further support for women's competition over attractiveness was that women were less likely to hire attractive than unattractive women (Luxen & Van de Vigner, 2006).

From an evolutionary psychology perspective, women used indirect aggression to compete over appearance with other women and to compete over fidelity and better sexual reputations. A good sexual reputation was theorized to be important to men so that they could be sure children women bore were theirs (Campbell, 2004). If women gained reputations for being sexually loose, they did not garner the ability to be as strong of competitors for male resources. Therefore, indirect aggression was used in order to

discredit other women's physical appearance (i.e., Nevo et al., 1993) and their sexual reputations (i.e., Lees, 1993) and thus caused potential mates to question their attractiveness and fidelity. Indirect aggression of this type may also have been explained by feminist theory, which described women competing in order to please men or gain attention from men.

In addition to techniques involving indirect aggression, women also competed over physical attractiveness by attempting to make themselves more physically attractive than others. Making oneself more physically attractive to men relative to other women was posited as central to women's competition with other women (Buss & Dedden, 1990). Women altered their appearances and tried to make themselves more attractive by applying facial make-up, styling their hair, dressing in certain clothes to appear thinner than they are, wearing jewelry, smiling (Buss, 1988a; Buss, 1988b; Hooks & Green, 1993; Tooke & Camire, 1991; Walters & Crawford, 1994), and exercising to achieve a slimmer body (Jonason, 2007). Additionally, the U.S. culture, because it has been focused on achieving female attractiveness by means such as cosmetics and plastic surgery, has sustained the idea that women could and should make themselves more physically attractive than other women (Wolf, 1991).

Not only did women wish to be more physically attractive than other women, but they also desired to be more socially attractive than other women. Women reported going out of their way to be especially nice and kind to men they wished to attract (Buss, 1988b), became jealous when rivals were sweeter, nicer, and better listeners (Dijkstra & Buunk, 2002), and indicated more distress when rivals were kinder and more

understanding (Buss et al., 2000). In addition, women attacked other women's personalities if attractiveness was perceived to be equal between two women (Joseph, 1985). This finding pertained to the gender role expectation of women as nice or sweet, which has encouraged women to compete to be nicer, kinder, and sweeter than other women in order to secure a mate.

#### *Additional Factors of Competition Among Women*

While indirect aggression and competition over appearance played large roles in competition among women, they were not the only mechanisms by which women competed. Methods by which women competed in the workplace included failing to give other women credit for work, putting less effort into female supervisors' work projects, and falsely blaming women in superior positions for problems, all of which made other women look ineffective or bad (Briles, 1987). Similarly, women downplayed the success of other women and viewed them as lesser competitors (Forsterling, Preikschas, & Agthe, 2007). It was presumed that if women believed that other women's successes were due to luck rather than to ability, this attribution served to discredit other women's capabilities.

Women also evidenced competition when they felt satisfied that other women had received something negative that the women supposedly deserved (Tannenbaum, 2002). For example, women may have believed that other women's attempts to gain a higher education justified the fact that they were unable to have children later in life. Additionally, women attacked the personal character of other women (Tannenbaum), in which women stated negative features about other women's personalities because they were jealous of other women's attractiveness. Women also competed with other women

by withholding support from them (McMurtry, 1994). In withholding support, they ensured that other women were unable to accomplish the tasks they began.

Another way women competed was by comparing on a downward basis, such as trying to prove who was the most pitiful or downtrodden (Fillion, 1996). Alternately, women competed when they tried to be martyrs by doing everything at home or at the office (Tracy, 1991). By competing downward or trying to be a martyr, women tried to make other women feel sorry for them, when in reality they were trying to show how much better they were because of all the pain or work they endured.

### *Social Comparison*

While the techniques women used to compete with other women were varied, most of them involved social comparison. Cowan and Ullman (2006) proposed that women's competition with other women included social comparison. An explanation for women's social comparison during competition was found in Festinger's (1954) social comparison theory, which held that people compared themselves against similar others in order to evaluate themselves on abilities or traits. A refinement of Festinger's theory was the Self-Evaluation Maintenance (SEM) model, explicated by Tesser and Campbell (1982), which held that people were motivated to retain a positive self-evaluation with regard to salient features of their identities. Consequently, if women compared themselves to others and found themselves lacking, then they decided to act in a way that maintained a positive evaluation of themselves (Tesser & Campbell).

Therefore, since in Western society a salient feature of women's identities has been physical beauty, then women have desired to maintain a positive self-image in

relation to their attractiveness. According to the SEM model (Tesser & Campbell, 1982; Tesser, 1999), women compared themselves to other women to determine how they measured up to the other women in terms of beauty. If the other women were deemed more attractive, then women's self-definition may have been challenged (Wood, 1989), and women may have acted in ways to maintain their own positive evaluation, such as by gossiping about the other women or deriding their attractiveness.

In effect, competition among women was posited to entail one woman being superior to other women in some respect. If women compared themselves to other women, they felt better when they found themselves more attractive or superior in some way (Pogrebin, 1987). Loya, Cowan, and Walters (2006) supplemented this idea with the suggestion that women increased their positive self-regard if they derogated the positive qualities of other women. In one study, when women were given a scene cue in which competition with other women was engendered, they had the need to make social comparisons with other women (Joseph, 1985), and jealousy was found to originate in comparing qualities with a rival (Dijkstra & Buunk, 2002). Buunk and Dijkstra (2004) postulated that women compared themselves with competitors on dimensions that were important for their self-esteem. Therefore, if in Western society women have been valued for being nice, women who have based their self-esteem on being nice have compared themselves with other women deemed to be sweet or polite.

Also, women not only examined if they were better than others, but they categorized people in order to feel or look superior to them (Tannenbaum, 2002). Such was the case when women perceived themselves as generous mothers, but viewed other

mothers as selfish because they left their children in order to work each day. This comparison prompted women to feel superior to other women, and thus contributed to their more positive self-regard. This categorization was made at an individual level, such that all women who worked away from their children were not perceived as being selfish, but the specific women with whom one was competing were viewed negatively.

Previous research showed that women used social comparison in competition with other women. Johannessen (1992) found that women compared themselves to other women and devalued other women when in competition with them. Harris-McDonald and Mollen (2006) found that women reported comparing themselves with other women regarding their appearance, and that they regarded themselves as having an advantage over other women if they looked better than the other women did.

### Theoretical Causes of Competition Among Women

As the content of competition among women was varied, so were the conjectured causes. Explanations of competition among women have been derived from psychoanalytic, evolutionary, and feminist theories. While some theories focused on intrapsychic causes of competition between women, others focused on contextual factors. Although the causes explained below provided different explanations for competition, they indicated that competition among women was prevalent in society.

#### *Psychoanalytic*

Psychoanalytic theories of negativity between women have reflected Freud's assumption of women's biological inferiority and have taken into account socialization pressures that made women feel that they and other women were inferior. Horney (1937)

stated women were negative toward other women because society constantly subjected them to their own inferiority, and also that women assumed society's male view and adjusted themselves to how men wanted them to be. She saw this as the source of negativity between mother and daughter, which was theorized to extend into women's adult lives and negatively affect their later relationships with other women.

Other psychoanalytic psychologists rejected Freud's idea of women's biological inferiority and pointed instead toward socialization pressures that inferred women were inferior. These pressures were posited to cause women to be resentful and negative toward other women. Caplan (1981) held that young girls were socialized to be nurturing from an early age and so were taken out of the nurtured role too early. Young girls therefore were postulated to feel cut off from nurturance because they were expected to care for others instead of being cared for; they therefore resented their mothers for their unmet nurturance needs and eventually resented other women for not caring for them as they wished to be nurtured. Likewise, Maguire (1997) stated that women who lacked attention may have become envious, due to women's early experiences of unmet needs for attention in relation to their mothers.

Other psychoanalytically rooted theories of competition among women also embraced the idea of the mother-daughter relationship as influencing future relationships with women. Eichenbaum and Orbach (1988) held that daughters came to feel responsible for meeting their mothers' needs due to the formation of early merged attachments. In later relationships, women desired connection with other women so they lost their own needs; however, this has been posited to cause women to become

threatened when other women try to differentiate in any way. Women were theorized to become threatened because they fear a loss of connection and also because they themselves desired the ability to become autonomous. Therefore, women felt competitive or envious if other women tried to differentiate.

In accordance with Eichenbaum and Orbach's (1988) theory, Tracy (1991) held that women felt a loss when other women attempted to separate, and so they became jealous of other women. Additional evidence of this fear of loss was that girls felt threatened by the success of their friends because they feared a loss of connection with them (Benenson & Benarroch, 1998). Tracy (1991) also posited that women were scared of being autonomous so they hid their competition, which lent support to women using indirectly aggressive strategies to compete.

Additionally, Chesler (2001) postulated that women were negative toward other women because they saw them as threatening mothers who were too powerful or powerless, and so they rejected other women. This mother-daughter dynamic carried over into women's adulthoods, as evidenced in an area such as academic settings where women continued to see other women as bad or good mothers, thus creating negativity and competition (Keller & Moglen, 1987). Thus, in the psychoanalytic view, mother-daughter relationships influenced later affiliations and competition with other women. A critique of psychoanalytic theories of competition among women was that, while some theorists took into account women's socialization, others blamed mothers for the creation of competition among women. Psychoanalytic theories also have not taken into account the fact that some women have a caretaker other than a mother, which might have,

according to psychoanalytic theory, made these women less competitive than women with mothers.

### *Evolutionary*

An additional explanation of the cause of women's competition with each other has been found in evolutionary theory. This theory has focused on intrasexual competition as biological, consisting of innate regulations that determined how women responded to their environments (Ingo et al., 2007). Additionally, evolutionary theory held that the production of offspring was the prime motivator for actions (Campbell, 1999). The evolutionary position held that women competed with other women for men and their resources in order to ensure their own and their children's survival. In cultures such as the United States where monogamy has been expected and where some parents have raised children together, it has been important that women have carefully chosen their mates so as to ensure their fidelity and resources (Campbell, 2002, 2004).

The evolutionary view postulated that women competed with each other for the best mate (Ingo et al., 2007). According to this viewpoint, women competed for mates with resources such as money and protection in order to provide for their children, in whom they invested much of their energy (Campbell, 2002; Hooks & Green, 1993). Indeed, women were found to improve their own appearance and deride the appearance of female competitors in order to attract a desirable mate (Walters & Crawford, 1994). In addition, women competed to maintain a youthful appearance, since that is what signaled to mates that they were prime candidates for reproduction (Faer et al., 2005).

Glazer (1992) also held that when males controlled politics and the economy, more competition among women for men existed. Male control of important resources in effect made women more subordinate to men and more in need of their resources.

Evolutionary theory postulated that, if women have few resources, then they must attract men who could provide them with means to survive. Therefore, men's control of more resources increased competition among women for men.

Evolutionary theory has failed to take women's progress into account; as women have become more financially independent, they should, in theory, have competed less. However, evolutionary theorists posited that feminist intrasexual competition continued to exist at an instinctual level in modern society, so that women maintained an innate drive to attract mates with strong resources for survival (Ingo et al., 2007). Another critique of the evolutionary view of competition among women was that it is heterosexist, which was evident in its explanation of women competing for men and their resources, failing to account for many women who did not compete for men (i.e., lesbian women, asexual women). Finally, evolutionary theory accounted for women's competition to be more attractive to men, but has not offered explanations for women's competition in realms such as academia or the workplace.

### *Feminist*

A third explanation of women's competition toward each other was posited by feminist theory, which held that competition was rooted in socialization and societal forces. Such forces included sexism and women's position of oppression in society (Brown, 2003). Western society has socialized people to view women as second-class

citizens. According to this view, women competed against each other, since it was ineffective to compete against men, who might find women less attractive if they directed anger toward men (Pogrebin, 1987; Valentis & Devane, 1994).

The feminist viewpoint stressed that girls and women were socialized to think that having a man in their lives was a top priority that would bring approval and validation (Russianoff, 1981; Schaeff, 1981); indeed, society compelled women to obtain male romantic mates (Holland, 1992). This pressure created rivalry in women for men and encouraged women to compete to win male approval over aspects men valued such as beauty (Chesler, 2001; Schaeff). However, women were also postulated to compete for men for social reasons, such as dating desirable men to increase their own social status (Clayton & Trafimow, 2007).

Feminists also held that women were socialized to see themselves as moral guardians of society, and this was theorized to create negativity among women, because women felt they must keep account of whether or not other women acted morally (Caplan, 1981). Women were posited to have little power and thus competed to be good in relation to other women (Eichenbaum & Orbach, 1988); women gained power by enforcing social norms through means such as gossip (Eckert, 1990). Women learned to use covert ways of responding to conflict since they were taught not to be open about hurt and conflict in their relationships (Brown & Gilligan, 1992), which explained why women were apt to use indirect methods of competition.

Societal forces with which women have contended and that have contributed to women's negative competition with other women have included women having fewer

opportunities than men (Barash, 2006) and having barriers in job situations, which caused women to be negative toward other women who were in the same position, since they were easy targets (Briles, 1987; Tannenbaum, 2002). Another societal force with which women have dealt is Western society's pressure on women to be nice, so that women have not been allowed to compete openly with each other; thus, competitive feelings toward women have been dealt with in a hurtful and often underhanded manner (Barash). Society has encouraged women to be cooperative (Johannessen, 1992; Miller, 1985), and to compete primarily in areas such as attractiveness and romantic partnerships with men (Barash; Travis et al., 2000). Therefore, in essence, women have been distracted by small matters so that they would not fight for more power in other realms, such as politics (Brown, 2003; Travis et al.)

Feminists also viewed women's competition with other women as due to their being part of an oppressed group. As such, women sensed that they were inferior to men, and this caused some women to treat other women negatively, just as the dominant group of men treated them (Cline-Naffziger, 1974; Miller, 1976; Schaeff, 1981). Thus, women learned from men to dislike, mistrust, and disrespect other women (Brown, 2003).

According to social identity theory, Tajfel and Turner (1979) proposed that members of oppressed groups internalized status differences between their group and the dominant group, which leads the oppressed members to desire to improve themselves in relation to their other group members. Therefore, if other women perceived that there was a large status difference between men and women, they began to view their sex as a problem, and so they negatively identified with other women (Ely, 1994). Ely found that

women who were employed in male-dominated law firms were more likely than those in sex-integrated firms to view other women critically and negatively. This finding has had implications for women's constructive relationships with other women in the United States's male-dominated society.

In addition, women who have benefited from the male system may have accepted men's descriptions of them and disliked association with other women (Cline-Naffziger, 1974). This dislike of other women was evident in women who displayed the Queen Bee syndrome, in which women had more privileges than other women, identified with the male system, and tried to keep other women out of top positions by undermining their success (Staines et al., 1974). Dislike of other women has also been explained by the concept of false consciousness (Jost, 1995), which postulated, in part, that oppressed people took on the norms of the dominant group, began to believe that their group was inferior, and therefore came to view other members of their group as inferior. Thus, women may have come to view other women as inferior and thus may have treated them negatively, as did the dominant group.

Likewise, Yamato (1990) stated that those who were oppressed had internalized the idea that they deserved to be held down, and so they distanced themselves not only from themselves but also from their group. Thus, women treated other women badly because they internalized their own oppression. The idea of internalized oppression was in line with Freire's (1970) position that those who were oppressed singled out the oppressor as the representation for how to be in the world. Therefore, oppressed group members engaged in horizontal violence, in which they attacked members of their own

group (Freire). Oppressed group members thus internalized oppressive societal beliefs and projected them onto other women (Tappan, 2006). These phenomena have offered an explanation for competition among women.

Critiques of feminist theory have included that it has not offered a causal explanation for socialization as evolutionary theory has done (Ingo et al., 2007; Thornhill & Palmer, 2000) and has not taken into account the biology of human nature (Ingo et al., Pinker, 2002). Also, feminist theory may have excused women's indirect violence by maintaining that it was solely in response to patriarchal society, as opposed to holding women accountable for their actions (Campbell, 1999). Additionally, feminist theory has failed to account for the fact that changes in women's societal status over the last half century, including increased female autonomy, have not contributed to adjustments in women's competition with other women, particularly competition for men (Campbell, 2004).

However, feminist theory has offered a comprehensive explanation for competition among women. Feminist theory has encompassed a broad content range of competition among women, as it has taken into account socialization and societal forces, such as societal oppression, that have compelled women to compete among each other. Feminist theory has included the idea that heterosexual women competed for men and that women viewed themselves as moral guardians of society, thus inducing them to make judgments of other women. In addition, feminist theory has endorsed the view that women used indirect means to both enforce social norms and compete for success in areas such as work. Feminist theory has also accounted for the fact that women were part

of an oppressed group in society, which impacted their views of themselves and of other women.

## Previous Research

### *Competition and Women in General*

The body of research literature on women's competition has not been large. Studies of competition have not typically mentioned women's competition, nor have they focused on the negative aspects of that competition. In part, this lack of research had to do with the fact that most existing competition scales measured competition in a way that excluded the specific negative experiences of competition among women. Thus, the scales lacked items measuring women's jealousy, envy, rivalry, and negativity directed at other women.

Several researchers developed scales that measured interpersonal competition, which was typically defined as a broad social attitude of wanting to win in interpersonal situations or perform better than others in some way (Griffin-Pierson, 1990; Helmreich & Spence, 1978; Houston, Harris, McIntire, & Francis, 2002; Martin & Larsen, 1976; Smither & Houston, 1992). Additionally, Ryckman, Hammer, Kaczor, and Gold (1990) developed a Hypercompetitive Attitude Scale that measured Horney's (1937) concept of hypercompetitiveness, defined as the desire to compete with others involving manipulation or humiliation of others for one's own benefit. While the hypercompetitiveness concept was presumed to be more similar to the construct of negative competition among women than has the interpersonal construct of competition,

all the interpersonal measures of competition generally failed to take into account or measure negative competition among women.

Previous research that examined competition typically measured competition in both genders. When competition was studied in women, it usually involved achievement motivation and competing for a goal. For example, Griffin-Pierson (1990) and Hearne (1997) found that women were more likely to compete in order to be the best they could personally be. Griffin-Pierson found that women scored higher on goal competitiveness, in which they competed for personal goals, as opposed to winning over competitors. She found this to be true in three groups of women, including female counseling psychologists, female medical residents, and female competitive swimmers. While these groups were hypothesized to have scored higher than other groups of women on a measure of interpersonal competitiveness due to their fields, they in fact did not; it was noted that the scales used to measure competition in this study might not have tapped negative competition among women, which was itself posited to be distinct from interpersonal competition.

Hearne (1997) held competition to be context-specific as opposed to a trait within women, although she viewed competition as a goal that cannot be shared. While women did mildly endorse interpersonal competition in the study, they strongly endorsed a focus on personal goals when they made attributions about their own competition. As noted for the previous study, this study defined competition in such a way to make it distinct from negative competition among women.

Women's reports in the aforementioned studies that they competed more for personal goals than to win over others were noteworthy. While positive competition existed for women, even in an interpersonal realm (Eichenbaum & Orbach, 1988), another reason may have explained why women were more likely to endorse competition for personal goals over competition with others. Women have been socialized to be cooperative and to deny competitive urges in themselves (Barash, 2006; Johannessen, 1992; Miller, 1985), so that women may have been less likely to divulge competitive impulses.

While the two aforesaid researchers found that women competed for personal goals, Oswalt (1985) and Kritis (1998) demonstrated that women competed to be better than others. Oswalt found that women were moderately competitive no matter if they were in male-dominated, neither sex-dominated, or female-dominated occupations. This finding supported the assertion that women were interpersonally competitive at work, but the study gave no indication of whether women were more competitive with other women in any of the three classifications of occupations. Kritis studied female undergraduates' attachment styles and found that regardless of attachment style, women endorsed interpersonal competitiveness more than goal competitiveness. These two studies supported the idea that women were more interpersonally than goal competitive.

Some researchers found that women were more likely to compete for their own personal fulfillment (Griffin-Pierson, 1990; Hearne, 1997), while other researchers found that women competed to be better than other people (Kritis, 1998; Oswalt, 1985). It was noted that of the aforementioned four studies, only one included an empirical assessment

of social desirability; Griffin-Pierson (1990) found that neither interpersonal or goal competitiveness was related to social desirability. Many research studies (Griffin-Pierson, 1990; Helmreich & Spence, 1978; Houston et al., 2002; Martin & Larsen, 1976; Smither & Houston, 1992) did not examine women's competition with other women, but rather women's competition with people in general. Therefore, their results have not necessarily been generalized to research concerning negative competition among women.

Nonetheless, research on women and competition in general showed that some of the same issues theorized to be involved in competition among women were viewed as part of women's experience in general competition. For example, one facet of competition among women was vying to obtain a romantic partner. As stated above, general competition research demonstrated that women often competed interpersonally to be better than other people (Kritis, 1998; Oswalt, 1985). However, general research on women and competition lacked a specific focus on women's negative competition among women.

### *Competition Among Women*

A number of researchers conceptualized women's competition as either interpersonal (Kritis, 1998; Oswalt, 1985), as part of achievement motivation (Hearne, 1997), or as encompassing both conceptualizations (Griffin-Pierson, 1990). Several studies specifically examined competition among women in cultures other than the U.S. and conceptualized competition among women as competition for men and their resources (Glazer, 1992; Madhavan, 2002; Rucas et al., 2006). Additionally, many studies examined embedded elements of competition among women, such as studies of

indirect aggression (e.g., Bjorkqvist, Osterman, et al., 1992; Ingo et al., 2007; Werner & Crick, 1999), attractiveness (e.g., Buss et al., 2000; Dijkstra & Buunk, 2002), and social comparison (e.g., Buunk & Dijkstra, 2004). Many of the above studies examined competition among women in the context of women's intrasexual competition for men as mates (e.g., Buss et al.; Buunk & Dijkstra; Ingo et al.).

Although many studies examined competition among women as embedded in their overall research frameworks, five studies investigated competition among women as a distinct construct. These five studies conceptualized competition among women as negative and as harmful to women's relationships. Three quantitative studies and two qualitative studies were conducted in which competition among women was conceptualized as detrimental and damaging.

However, one older study showed that women were negative toward successful women (Horner, 1972). Horner did not directly study competition among women, but she indirectly studied women's negativity toward other women. She presented her participants with a sentence about a successful woman who had reached the top of her medical class, and asked them to write stories about her. The women who participated in the study wrote negative stories about the successful woman, including unkind statements about her femininity, appearance, and personality. Hence, women were spiteful and seemingly jealous of a woman whom they saw as successful. This finding lent support to the notion that women were envious of other women's success, which was theorized to be encompassed in competition among women.

Joseph (1985) conducted three studies as part of his investigation of competition among women. The first two studies included 218 and 127 White undergraduate women, respectively, between the ages of 17 and 24. For the first two studies, Joseph used the methodology of sentence cues involving attractive individuals looking at their same sex counterparts, to which participants wrote responses. This method of data collection was limited in that the scoring of participant responses could have been impacted by researcher expectations; additionally, this method was less rigorous than having a standardized scale with which to measure competition among women. The studies also included 130 and 95 undergraduate college men, respectively. However, men's responses were collected in order to compare women's results with men's results; Joseph found that women reported more themes related to negative competition among women than did men. Joseph's third study included 106 White undergraduate women who lived in college dormitories; the author did not specify the age range for the third study. As part of the third study, participants filled out a questionnaire that had been developed by the author based on the results of the first two experiments. The researcher did not report item composition or psychometric properties of the questionnaire.

Joseph (1985) discovered that women responded negatively to and were highly critical of attractive women. Women in this study were jealous, envious, concerned about their own and others' appearances, insecure, distrustful of other women, and examined other women for faults. Women's responses brought up the need to make comparisons with other women and to compete with them to look better for men. Women in this study

attacked women's personal attributes if they could not find fault with their physical appearance. All of these results informed the construct of competition among women.

Johannessen (1992) conducted a mixed-method study on competition between women and viewed competition as a complicated process due to women's difficulty connecting with each other when in competition. She viewed competition from a stage model through which women in competition progressed. At lower stages, women compared themselves to and devalued others, while at higher stages, women competed in healthier ways, such as to be their best at a given task. Johannessen's research theorized that there was a positive way to compete with other women.

Johannessen's (1992) quantitative data were collected via a competition survey developed for the study, which assessed women's experience of relational competition. For the quantitative portion, participants included 596 women from the readership of a women's magazine who ranged in age from 18 to 68 and included women from the following ethnic groups: 3.7 % Black; 1.9 % Latina American; .6 % Native American; 92.5 % White; and 1.2 % Asian. For the qualitative portion of the study, participants were six White women from an Eastern U.S. state who ranged in age from 31 to 47 years old. These six participants answered a set of structured questions developed for the study. Johannessen's unstandardized survey and question use in her study created difficulty in replication or comparison of results, since other studies used different means to measure competition among women. Overall, Johannessen (1992) found that women had a negative view of competition with other women, felt uncomfortable and tense when competing, and avoided competition. She also found that women typically competed in

areas such as jobs, academics, and appearance in order to increase their own confidence or to win, which corresponded to the theorized components of women's negative competition with other women.

Another study involving competition among women was McMurtry's (1994) qualitative study of competition between women in business. McMurtry utilized questions developed for the study that involved topics surrounding women's competition with women; thus, the results of the study have not been easily compared with other studies. Participants in the study were 22 businesswomen, ranging in age from 35 to 56, who had at least 10 years' experience in the business field and were recruited via snowball and convenience sampling methods. The participants represented the following ethnicities: 17 White; 2 Black; 1 Native American; 1 Chinese American; and 1 Japanese American. All five women of color were over 47 years old. Because McMurtry only interviewed women employed in business fields, her study was not easily compared to studies that examined other populations.

Women in McMurtry's (1994) study viewed competition as either positive, negative, or were ambivalent about competing with other women. Women who viewed competition negatively believed that competition was a framework in which one person lost and another won. Women also reported a range of indirectly competitive behaviors that they had witnessed or been part of in the business world, such as manipulation of other women, gossip about other women, and denying assistance to other women. Women in this study stated that when they felt competitive with other women, it was usually because they themselves felt insecure or wanted attention. The findings that

women felt competitive and competed indirectly with other women supported the idea that women negatively competed with other women. Also, the study demonstrated that women competed for success in an area such as business, which also supported the notion that women competed among each other concerning a variety of issues.

Cashdan (1998) also studied competition among women, although it was in the context of studying gender differences in competition. Cashdan conducted two studies as part of her investigation. In both studies, Cashdan used competition diaries in which participants were given instructions to write down situations in their daily lives in which they felt competitive. The coding of these responses might have been influenced by researcher expectations. In addition, the participants in the first study may have been unduly influenced by the researchers since they were living in a residence hall where some of the researchers conducted research. As part of the second study, in addition to completing diary entries, participants also rated how competitive they felt regarding ten specific situations, including winning a competition and attracting a mate. However, the description of competition in this study was ambiguous; thus, the participants' responses may not have been a true representation of their actual experiences. The lack of standardized measures in the study has created difficulties for the comparison of study results.

The participants in Cashdan's (1998) first study included 70 British middle-class women with a mean age of 21 years. In study two, participants included 111 middle-class British students with an average age of 24 years. In both studies, 28 and 119 men were also included in the studies, respectively, but their results were analyzed separately from

those of the women. Cashdan did not indicate the ethnicity of the study participants.

Cashdan (1998) found that women competed most over and felt most competitive about gaining notice from the opposite sex, being successful at work, and looking attractive in relation to other women. This study was also in line with the theorized content of competition among women, and it supported the notion not only that women competed to be more physically attractive than other women and to gain the attention of men, but also that they competed to be successful in work arenas.

Harris-McDonald and Mollen (2006) studied competition among women and developed a psychometrically sound scale to measure the construct of competition among women. They defined competition among women as directed toward other women and as negative, encompassing rivalry, envy, jealousy, and superiority. Harris-McDonald and Mollen's participants included 115 women ranging in age from 18 to 65 years old. Ethnic group identification of participants included the following: 88.6 % White; 2.6% African/African American/Black; 2.6 % Native American/Pacific Islander/Eskimo/Aleutian; 1.8 % Hispanic/Latina; .9 % Asian/Asian American; and 3.5 % ethnicities other than those listed. Harris-McDonald and Mollen used snowball sampling for their study, which limited the generalizability of the results due to the type of participants the method of sampling may have elicited. Women in this study evidenced moderate competition with other women, reported comparing themselves to other women, and believed most women competed over attractiveness and the desire to be better than others. Thus, Harris-McDonald and Mollen's findings provided evidence that competition among women was present in women's lives, at least to a moderate extent.

The previous lack of standardized measures in the area of competition among women has created difficulties for the comparison of study results. However, Harris-McDonald and Mollen's (2006) Competition Among Women Scale, which was described in the Method section, was shown to a reliable and valid measure of competition among women.

#### The Relationship between Competition Among Women and Other Variables

Some variables have been theorized to moderate the relationship between competition among women and other variables. A moderator variable has been defined as a variable that, if unaccounted for, affects the relationship between two other variables (Saunders, 1956). Frazier et al. (2004) stated that the use of moderators in psychology research enabled researchers to yield increasingly in-depth information about variables of interest. Frazier et al. used the terms buffering and enhancing to indicate moderation. The term buffering was stated to mean that the moderator variable shielded the effect of the predictor (independent) variable on the criterion (dependent) variable. Thus, the moderator variable lessened the effect of the predictor variable on the criterion variable, so that when the moderator variable was removed from consideration, the relationship between the predictor and criterion variables was stronger. On the other hand, if a moderator variable enhanced the relationship between the predictor and criterion variables, then it worked with the predictor variable to augment the relationship between the predictor and criterion variables. Thus, when the moderator variable was removed, the relationship between the other variables was weaker. Below, each variable was discussed in turn, with a discussion of its potential moderating effects, if any, following a general discussion of the variable's association with competition among women.

### *Competition Among Women and Intimacy in Female Friendship*

Friendship in general has been shown to provide intimacy, sharing, openness, reciprocated concern, and empowerment (Knickmeyer, Sexton, & Nishimura, 2002; Schultz, 1991). Women's friendships with other women were important because they provided affection, pleasure, gave life a sense of purpose (Acker, Barry, & Esseveld, 1981; Fehr, 2000), and met women's friendship needs for intimacy and understanding (Zarbatany, Conley, & Pepper, 2004). In fact, female friendships were characterized as some of the most significant relationships that women had in their lives (Crothers et al., 2005). Benefits of close female friendship were reported as openness and the exchange of ideas and contacts within the friendship (Bleske & Buss, 2000). When compared to men's same-sex friendships, women's same-sex friendships were viewed as more resilient, helpful, caring (Voss, Markiewicz, & Doyle, 1999), and intimate (Benenson & Christakos, 2003).

However, there have been difficulties reported in women's close female friendships. Although women's friendships have been hailed as more intimate and beneficial than men's close friendships, they were also found to be less stable (Apter & Josselson, 1998) and more fragile (Benenson & Christakos, 2003) and volatile (Lees, 1993). The reasons women's friendships with each other may have lacked stability or endurance was posited to involve two factors, including socialization forces and competition within women's female friendships.

Several explanations supported the fact that socialization affected women's friendships with other women, rendering their friendships less stable and more volatile.

First, U.S. women's relationships with other women have either been romanticized or devalued (Taylor, Veloria, & Verba, 2007); therefore, women's friendships were viewed as prized and special, or they were viewed as negative and involving petty and underhanded behavior. At either extreme, this dichotomy allowed no room for women to have special relationships with other women that also involved normal amounts of relational conflict. Gali-Alfonso (2005) posited that women's relationships with each other were complicated and involved positive and negative characteristics, so that some negativity in women's relationships was inevitable. However, Gali-Alfonso also stressed that women were socialized to be unselfish and kind, which created discomfort in women when they experienced feelings of envy, competition, or resentment. Therefore, women's discomfort with these negative feelings created discord in their relationships with other women, affecting the relationship intimacy level.

Raymond (1986) echoed the idea that the U.S. has held women as each other's adversaries, which has been viewed as an impediment to women's bonds with other women. Raymond also noted that women did not have a sense of a collective history or group identity, which also served as a barrier against women's friendships. Additionally, as discussed previously, women in Western society have been socialized to believe that having a man in their lives is a top priority that will bring approval and validation (Russianoff, 1981; Schaefer, 1981). Therefore, women's relationships with other women have been less valued than their relationships with men (Tannenbaum, 2002), and they may not have perceived the significance of their female friends in their lives (Acker et al., 1981). Also, friendships have not had a legal, formalized commitment as heterosexual

marriage has, so friendships may have been more likely to disband than women's heterosexual romantic relationships. Thus, women's female friendships may be more likely to end if conflict has arisen within them (Weinstock & Bond, 2000).

Competition among women may have also impeded the intimacy in close female friendships. Friends were postulated to be similar to each other, which served to help establish and maintain their friendships (Fehr, 1996, 2000). However, this closeness was theorized to negatively impact female friendships. Women in close relationships shared their private characteristics (Davidson & Duberman, 1982) and divulged derogatory personal information in their interactions with friends (Roy, Benenson, & Lilly, 2000); however, this personal information may have been used against women during periods of conflict or competition in the friendship. Also, due to the greater amount of knowledge friends possessed about each other, competition among friends may have existed (Barash, 2006), and negative responses to discord in friendships may have been stronger in women's friendships (Crick & Grotpeter, 1995).

Another way competition in women's close friendships created problems is that women's friendships tended to exist on their own, without involving others who may have been able to moderate conflict or competition (Benenson & Christakos, 2003). However, especially in women's young adult friendships, friends were involved in cohesive social groups (Richardson & Green, 2006), so that competitive actions such as spreading gossip were more likely among friends. Therefore, both isolated friendships and friendships that were part of social networks were prone to competition and conflict.

Competition within women's friendships with each other was theorized to include feelings of jealousy (Bevan & Samter, 2004) regarding financial and social status and beauty (Gali-Alfonso, 2005) competition for men (Rind, 2002; Sapadin, 1988), and other limited resources (Bleske & Shackelford, 2001). Indeed, women reported that negative and harmful aspects of their same-sex friendships included unkindness, friends stealing mates, sexual rivalry with same-sex friends (Bleske & Buss, 2000), negatively comparing oneself with friends (Eichenbaum & Orbach, 1988), and struggles for influence within the relationship (Davidson & Duberman, 1982). Women also reported that they performed behaviors aimed at reducing a friend's success in order to increase their own success (Tesser & Campbell, 1982), as well as exhibiting indirect aggression toward their same-sex friends (Richardson & Green, 2006).

Competition in women's same-sex friendships was theorized to be harmful to women's friendships (Tracy, 1991). Women reported feeling hurt and deceived when other women broke certain rules of female friendship, such as not appearing compassionate and thoughtful (Litwin & Hallstein, 2007) or not sharing themselves fully (Fehr, 2000). Additionally, when women did not think that their friends could endure differences or negativity, such as disappointment or competition, the friendship did not mature (Schultz, 1991). Thus, competition among women as part of women's same-sex friendships was detrimental to the intimacy of the friendship.

However, some women's same-sex friendships lacked negative competition. Lees (1993) found that some young women were not negatively competitive in their friendships. Additionally, although women's greater friendship intimacy may have

induced conflict (Barash, 2006; Roy et al., 2000), greater intimacy in female friendships may also have led to shared experiences in which female friends may have been able to discuss negative feelings with their friends. Women with more intimacy in their close friendships may have either discussed competition in the relationship when it emerged, or may have been less competitive with each other in general. Merten (2004) found that girls whose friendships were characterized by sharing, support, and equality within the friendship were likely to have higher quality friendships than those girls whose friendships involved hierarchy and a focus on beauty.

Women whose close friendships were characterized by discord have experienced negative competition in their relationships with close friends. Alternatively, women with greater shared intimacy, equality, and closeness in their female friendships have evidenced less negative competition among women in their friendships. Thus, women who experienced less negative competition in their same-sex friendships may have had higher friendship intimacy.

#### *Competition Among Women and Hostility Toward Women*

Check (1988) defined hostility toward women as a trait directed specifically at women that involved ruminating on past actions of women, such as harassment, aggression, withdrawal, or confrontation. Check held that hostility toward women was couched in interactions with women; he also claimed its intent was to damage women, rather than to gain something for oneself. Check, Malamuth, Elias, and Barton (1985) developed a Hostility Toward Women (HTW) scale to measure the construct. Other

studies of hostility toward women used the Check and colleagues' definition and scale to study hostility toward women (e.g., Cowan et al., 1998).

The original HTW scale was used to assess men's hostility toward women, and Lonsway and Fitzgerald (1995) modified the scale so as to measure women's hostility toward women. Lonsway and Fitzgerald found that men and women who evidenced increased hostility toward women were more likely to accept rape myths, which are untrue beliefs about rape, rape victims, and rape perpetrators (Lonsway & Fitzgerald). Therefore, the researchers found that both men and women exhibited hostility toward women.

Women's hostility toward women was hypothesized to impede women's collective efforts at societal advancement (Cowan et al., 1998) and was associated with low self-esteem, low self-efficacy, low general happiness, low intimacy (Cowan et al.), increased acceptance of interpersonal violence toward women (Cowan, 2000; Cowan et al.), a sense of personal inadequacy (Cowan & Ullman, 2006), and high body shame (Loya et al., 2006) in women. In addition, hostility in general was shown to relate to coronary artery disease in women (Krantz et al., 2006). Therefore, it was demonstrated that negative psychological, social, and physiological effects were related to women's increased hostility toward women.

The constructs of competition among women and hostility toward women were presumed to be similar. Hostility toward women was postulated to include some definitional similarities to competition among women, including the belief that women were scheming and deceitful (Lonsway & Fitzgerald, 1995), which was viewed as similar

to the indirect aggression present in competition among women (Harris-McDonald & Mollen, 2006). Cowan (2000) also held that there was an aspect of resentfulness in hostility toward women; likewise, the envy present in competition among women may have bred resentment in women for features or attributes they did not possess (Harris-McDonald & Mollen). Additionally, competition among women and hostility toward women were both considered to be the result of social factors, such as being part of an oppressed group (Cowan & Ullman, 2006; Harris-McDonald & Mollen).

Previous studies held that competition among women was part of the construct of hostility toward women. Cowan et al. (1998) proposed that competition was a fundamental part of hostility toward women, and Cowan and Ullman (2006) considered competition to be a component of hostility toward women; their study included a measure of competition as a marker of hostility toward women, but the competition measure solely assessed interpersonal competition. However, competition among women was demonstrated to be conceptually different than hostility toward women. Frederick (1989) investigated the role of competition among women in hostility toward women, and she found that competition and jealousy did not surface as factors in hostility toward women. Therefore, the construct of competition among women should not have been amalgamated with hostility toward women, but rather should have been studied as a complementary yet separate construct.

In addition, hostility toward women was considered to be a negative attitude toward women (Frederick, 1989), and competition among women was theorized to include both attitudinal and behavioral components that are related to its construct;

hostility toward women also was postulated to include a broader definition of competition than that encompassed by hostility toward women (Harris-McDonald & Mollen, 2006). Check (1988) claimed the intent of hostility toward women was to damage women, and while competition among women also was posited to include a component of indirect aggression, it was viewed as seeking to better oneself in relation to other women, without necessarily damaging other women. In a related vein, hostility toward women was associated with an acceptance of violence toward women (Cowan, 2000; Cowan et al., 1998), and competition was not hypothesized to be associated with this acceptance of violence.

Although the relationship between competition among women and hostility toward women has not been directly studied, and though the constructs are hypothesized to differ, some evidence showed that the two constructs may be positively related. Loya et al. (2006) found that women with higher levels of hostility toward women who compared themselves socially to other women were more likely to denigrate other women's attractiveness in connection to themselves. Competition among women was theorized to include social comparison along the dimension of attractiveness. In addition, hostility toward women and competition among women were both associated with support of Western beauty standards (Forbes, Collinsworth, Jobe, Braun, & Wise, 2007; Harris-McDonald & Mollen, 2006) and emotional dependence on men (Cowan et al., 1998; Harris-McDonald & Mollen). Because both constructs were associated with similar variables, competition among women and hostility toward women were hypothesized to be positively related.

*Hostility toward women as a moderator variable.* As indicated above, hostility toward women was hypothesized to be positively related to competition among women. However, hostility toward women was also shown to be associated with friendship intimacy. Cowan and Ullman (2006) found that women lower in hostility toward women had more intimate relationships with a best female friend and speculated that women's hostility toward women may have led to an avoidance of close relationships with women. Thus, hostility toward women was postulated to be negatively associated with intimate female friendship. Moreover, hostility toward women was posited to moderate the relationship between intimate female friendship and competition among women by buffering the effect of female friendship on competition among women. Thus, it was held that the relationship between friendship intimacy and hostility toward women may have been stronger when hostility toward women was held constant.

Additionally, hostility among women was proposed to moderate the relationship between competition among women and feminist identity development. The construct of feminist identity development has been discussed below. Women who evidenced higher hostility toward women were less likely to associate themselves with other women (Cowan & Ullman, 2006). Therefore, women high in hostility toward other women may have been less likely to identify with women's issues or to have advanced feminist identity development. It has been noted that Cowan et al. (1998) found that women's self-identification as feminists and support of the feminist movement were not significantly associated with hostility toward women; however, the researchers did not assess the participants' feminist identity development levels. Feminist identity development was

differentiated from identifying oneself as a feminist (Myaskovsky & Wittig, 1997; Renzetti, 1987), as explained in the sections below. Despite one study indicating otherwise, hostility among women was hypothesized to moderate the relationship between competition among women and feminist identity development. It was presumed that hostility among women served as a buffering variable, so that when it was held constant, the relationship between the other two variables was strengthened.

#### *Competition Among Women and Feminist Identity Development*

Feminist identity development has been posited to encompass women's identification with feminism or with feminist ideals (Fischer et al., 2000). Feminism, though postulated to be comprised of many varied concepts (Yakushko, 2007), in general has promoted beliefs that women have a right to their own subjective experiences, that society has institutionalized male privilege, and that women should collectively fight against inequality between men and women in society (Offen, 1988). Women's personal identification with feminism has been viewed as a complicated progression (Bargad & Hyde, 1991). However, Downing and Roush (1985) posited a model in which women grew and sustained their identification with feminism, and the researchers delineated five stages of feminist identity development.

The first stage of Downing and Roush's (1985) model was termed passive acceptance, in which women endorsed conventional gender roles and held the idea that men were better than women. Revelation was the second stage, in which women began to doubt their conventional gender role, directed anger at men, and felt culpable for playing a role in their own subordination. The third stage was called embeddedness-emanation,

where women felt close to other women and were wary about associating with men. The fourth stage, synthesis, was where women began a positive feminist identity, in which they had associations with other women and with some men. Finally, in the fifth stage of active commitment, women viewed men as equivalent to women, but dissimilar, and they became dedicated to the collective transformation of society. Although the model presented was a stage model, it was noted that women could cycle through the stages and return to earlier stages (Fischer et al., 2000).

Although some women identified with feminist beliefs, they did not wish to identify as feminists. Renzetti (1987) found that college women were hesitant to call themselves feminists, because they ascribed to the notion that individual women could succeed without the help of other women. Myakovsky and Wittig (1997) found that a majority of women in their study identified with feminist beliefs, but over half of them did not identify as feminists. The results of the above studies indicated that, even though women may not publicly state they were feminists, they may hold feminist beliefs. Therefore, women who did not identify as feminists may have indicated moderate to high levels of feminist identity development; this was important to note since only approximately one-fourth to one-third of women in the United States identified as feminists (Huddy, Neely, & Lafay, 2000).

Adherence to feminist beliefs implied valuation and acceptance of women for their unique identities. These beliefs also conveyed the notion that women fought together as sisters for social change. Therefore, it seemed that women who identified as feminists, or who evidenced greater levels feminist identity development, were less likely

to negatively compete with each other. While these assumptions may have been true, they also may have misrepresented the idea of competition in feminist circles.

Some theorists have held that competition opposed feminism and the shared aims of the feminist movement (Henry, 2006). Others have pointed out that sisterhood itself was a fantasy and that women could not expect to have an absence of conflict in their interactions with other women (Keller & Moglen, 1987). In fact, Keller and Moglen stated that the concept of zero competition in the feminist movement did not correspond with a society that has valued competition and that itself had resources in short supply. Therefore, they stressed that denial of competition within feminist circles was actually been contrary to the aims of the feminist movement, which included empowering women and being genuine with other women.

Although competition may have existed among feminists, feminist women were found to develop closer and more trusting relationships with women than with men (Taylor, 1994) and were better able to confront and resolve conflict in their relationships with other women. Therefore, women may have evidenced less competition among women. Women who were in later stages of feminist identity development may have had the ability to establish close and faithful relationships with other women, thus enabling these women to report less competition among women.

The idea that women, with more progressed feminist identity, experienced less competition among women was supported indirectly by researchers. Henderson and Cunningham (1993) found that feminist women were less likely to be emotionally dependent on men. In another study, women who evidenced lower levels of feminist

identity development were more likely to hold to traditional feminine beliefs, such as the importance of appearance; also, women who were less likely to focus on their physical appearance had higher levels of feminist identity development (Mahalik et al., 2005). Additionally, women who were higher in feminist identity development reported more subjective well-being, including autonomy and personal growth (Yakushko, 2007). Women who were characterized as independent, personally mature, and generally more satisfied with their lives may have had less reason to compete with other women. Women who indicated higher levels of competition with other women were likely to be focused on romantic relationships (Holland, 1992; Russianoff, 1981; Schaeff, 1981) and to hold traditional beliefs such as focusing on appearance (Chesler, 2001; Schaeff).

The relationship between competition among women and feminist identity development has not been directly studied. The two constructs were hypothesized to be negatively related. Women at higher levels of competition were presumed to be at lower levels of feminist identity development.

*Feminist identity development as a moderator variable.* Feminist identity, as noted above, was theorized to be negatively associated with competition among women. Additionally, feminist identity was shown to be associated with friendship intimacy. Witte and Sherman (2002) found that women at lower stages of feminist identity development suppressed themselves in relationships with others. Therefore, women with lower levels of feminist identity development may have been less likely to have close friendships with others. In line with this finding, Acker et al. (1981) found that women with a higher feminist consciousness felt supported by other women in their struggles

with daily life, including such struggles as gender discrimination. Both of these studies suggested that women at higher stages of feminist identity development experienced closer and more intimate friendships with other women.

Additional research lent support to the idea that higher levels of feminist identity development impacted intimacy in women's female friendships. Friendship was theorized to include closeness, sharing of oneself, a balance of relationship power, and a feeling of empowerment (Knickmeyer et al., 2002). Relationship equality and empowerment were demonstrated as tenets of feminism as well (Offen, 1988); therefore, it seemed that intimate and equal friendships that led to empowerment were likely in feminists' friendships. In fact, heterosexual feminists indicated that their friendships were more equivalent and nonhierarchical than nonfeminists' friendships (Rose & Roades, 1987). Also, Veniegas and Peplau (1997) discovered that in female friendships, where each friend had equal power, the relationship was rated as more fulfilling, intimate, beneficial, and open than in relationships characterized as unequal. These studies gave support to the idea that friendships based on feminist beliefs, such as egalitarianism, and by the lack of hierarchy, were more equal, open, intimate, and satisfying for women.

Therefore, it was theorized that feminist identity development was positively associated with intimacy in female friendship. In addition, it was previously stated that friendship intimacy was negatively associated with competition among women. Furthermore, feminist identity development was presumed to moderate the relationship between friendship intimacy and competition among women by enhancing the negative correlation between the two variables.

Another relationship that feminist identity development was proposed to moderate was that between competition among women and self-esteem. In general, feminist leanings were associated with higher self-esteem (Fischer & Good, 1994), and women with feminist beliefs were found to have higher self-esteem than women without feminist beliefs (Usher & Fels, 1985). Women's studies students, who were exposed to feminist interpretations and critiques, were found to have increased self-esteem over time, compared to students who were not enrolled in women's studies courses (Stake & Gerner, 1987). In addition, after taking part in feminist consciousness raising groups, women reported higher levels of self-esteem (Weitz, 1982). Roy, Weibust, and Miller (2007) also found that when women were exposed to positive labels of women, they had higher levels of performance self-esteem, which was related to the ability and self-assurance to encounter difficulties in life.

Although some research studies found an indirect relationship (Hurt et al., 2007) or no relationship (Taylor, 1994) between feminist identity and self-esteem, many investigations found an association between the two constructs. Indeed, women's self-esteem was associated with the espousal of feminist beliefs and feminist identity (Boisnier, 2003; Carpenter & Johnson, 2001), was related in general to increased growth as women (Ossana, Helms, & Leonard, 1992), and was linked to the meaning ascribed to being women (Carpenter & Johnson). In addition, women who had higher levels of feminist identity development reported increased well-being (Downing & Roush, 1985), which may have positively impacted self-esteem; likewise, women at lower levels of

feminist identity development reported less personal development (Saunders & Kashubeck-West, 2006), which may have negatively impacted self-esteem.

Based on the studies described above, women's level of feminist identity may have been hypothesized to be positively related to self-esteem. As explained below, self-esteem was also theorized to be negatively related to competition among women. Moreover, the construct of feminist identity development was posited to enhance the relationship between self-esteem and competition among women.

#### *Competition Among Women and Self-Esteem*

Self-esteem has been defined as individuals' assessment and view of their personal value and worth (Rosenberg, 1965). Individuals have estimated their self-worth by comparing themselves to others (McMullin & Cairney, 2004) or by viewing themselves as others viewed them (Rosenberg & Perlin, 1978). Thus, people may have believed that someone performed a task better than they did, or that others thought they could not perform a task well, and their self-esteem may have been negatively affected.

Women were found to have lower self-esteem than men (Josephs, Markus, & Tafari, 1992), across a range of ages (McMullin & Cairney, 2004). Explanations for women's lower self-esteem when compared to men were that women had less power in society than men, so that women's pursuits and values were not given as much weight or consideration as men's endeavors (Briles, 1987; Rosenfield, 1999). Women also may have had lower self-esteem due to their membership in an oppressed group, whereby they accepted the dominant group's negative view of them and thus experienced self-loathing and low self-worth (Schaefer, 1981; Tappan, 2006). In fact, since in the U.S. women have

been viewed as lesser than men, women competed negatively with other women because they often lacked the means to survive in any other way (Pogrebin, 1987).

In the U.S., women's self-esteem has likely been affected by their external qualities (Barash, 2006), such as their appearance. An explanation for the gender difference in self-esteem was that women were evaluated based on their physical appearance, so that if they did not match the Western ideal of beauty, their self-esteem suffered (McMullin & Cairney, 2004). This explanation was directly in line with the view that competition among women was associated with lower self-esteem, since it involved a focus on appearance.

The roots of women's competition have been theorized to lie in their experiences during adolescence (Barash, 2006). In support of that theory, Brown and Gilligan (1992) and Pipher (1994) posited that girls' self-worth was challenged during adolescence because they were taught to deny their internal experience, including their thoughts and feelings; girls' growth was thus stifled when they refused to acknowledge their wants and needs, which created a loss of self-assurance and negatively impacted girls' self-esteem. Related to competition among women, Brown and Gilligan (1992) held that negative competition among girls adversely impacted girls' self-esteem. Adolescent girls have been theorized to compete over beauty, males, weight, and popularity (Barash). Therefore, girls' self-esteem may have been lowered if they competed with other girls and found themselves lacking in some area.

As discussed previously, competition among women was theorized to include an interpersonal component of competing against others to win or be superior. Those who

were interpersonally competitive were found to have low self-esteem (Ryckman et al., 1990; Ryckman, Thornton, & Buter, 1994). The fact that interpersonal competitiveness was associated with low self-esteem suggested that low self-esteem may also have had an association with competition among women.

Additional evidence supported the idea that higher levels of competition among women were related to lower self-esteem. As noted above, social comparison played a role in how people have evaluated their self-esteem (McMullin & Cairney, 2004). Social comparison also played a large role in competition among women, in that women compared themselves to other women (Cowan & Ullman, 2006; Loya et al., 2006). Buunk and Dijkstra (2004) held that people compared aspects of themselves with others based on what was central to their self-esteem, and if they found they were not better than others, their self-esteem was negatively affected. Therefore, negative social comparison, as part of competition among women, may have contributed to lower self-esteem in some women.

In accordance with the importance of social comparison for individuals' self-esteem, Burckle et al. (1999) proposed that people who were interpersonally competitive disparaged others in order to preserve their own self-esteem; this proposal was supported in a study which found that participants derogated the traits of attractive same-sex people (Forsterling et al., 2007). Likewise, Loya et al. (2006) suggested that women increased their positive self-regard if they derogated the positive qualities of other women. Similarly, Clayton and Tramifow (2007) postulated that women attached negative characteristics to other women in order to increase their own self-esteem. In Clayton and

Tramifow's research, this theory was not supported; however, they stated that their sample was small and may not have represented the population, and they held that the self-esteem theory may have held true in some cases, such as when women felt their own mates were in jeopardy of being stolen by other women.

The idea that women desired to maintain their own self-esteem by deriding others was explained by women's sense of insecurity when comparing themselves to superior others. Women exhibited negative competition because they have grappled with feelings of incompetence and low self-worth (Eichenbaum & Orbach, 1988; Tannenbaum, 2002). Indeed, Joseph (1985) found that women, when presented a cue of an attractive female, evidenced feelings of insecurity. Women reported that underlying causes of their envy and competition with other women involved feelings of self-doubt and beliefs that they were inadequate in comparison to other women (McMurtry, 1994). Likewise, women reported an internal struggle when in competition with other women, including grappling with their self-esteem and feelings of deficiency, as well as disparaging other women (Johannessen, 1992).

Tracy (1991) held that women with low self-esteem did not trust other women and engaged in negative competition with other women. Matsumoto (1987) postulated that women who had higher self-esteem were able to compete in positive ways; therefore, if women had an unhealthy self-esteem, they competed negatively and destructively with other women. Furthermore, if feelings of inadequacy originally engendered negative competition among women, as the competition continued, self-esteem levels spiraled

downward, which served to create even lower self-esteem and more competition among women (Tannenbaum, 2002).

Women's self-esteem was also related to competition among women because heterosexual women based their self-esteem on whether or not they had romantic partnerships with men; this was termed relationship contingency (Sanchez & Kwang, 2007). In one research study, relationship contingency was associated with significantly less self-esteem and more body shame, particularly for single women; also, women in romantic relationships had higher self-esteem than single women (Sanchez & Kwang). However, in contrast to the finding that women in heterosexual romantic relationships with men had higher self-esteem, Henderson and Cunningham (1993) found that emotional dependence on men was associated with low self-esteem. However, the researchers noted that the correlational relationship between the variables was not causal. It was noted that being in relationships with men did not necessarily imply that women were emotionally dependent on men.

Additionally, because relationship contingency was also associated with body shame, and thus concern over appearance, the way women have evaluated their appearance may also have played a role in their levels of self-esteem. Also, focus on how individuals' appearances compared to other women was theorized to be a facet of competition among women. Thus, single women who competed with other women for men's attention, particularly through appearance, may have had lower self-esteem. In fact, women's evaluation of their appearance appeared to influence their self-esteem. Women's self-esteem was lessened when they compared themselves to other women, if

they deemed themselves less physically attractive than the other women (Abell & Richards, 1996; Furman, 1997). Furthermore, women who compared themselves to more attractive women evaluated themselves as less attractive (Cash, Cash, & Butters, 1983). Additionally, girls in early adolescence were found to have lower self-esteem if they held to traditional female ideologies, including the appearance-related dimension of body objectification, which included monitoring and objectifying their own bodies (Tolman, Impett, Tracy, & Michael, 2006).

Another connection between competition among women and low self-esteem involved envy, which was theorized to constitute one part of competition among women. Envy resulted if women felt deficient in some area of their lives, which led not only to devaluation of the self, but also to destructive envy of what others have (Cohen, 1986; Valentis & Devane, 1994). If women were frustrated or unhappy with their own lives, they were envious of other women (Fillion, 1996), and thus used a competitive tactic such as indirect aggression in order to combat their own low self-esteem. Women who doubted themselves and felt deficient behaved cruelly toward each other and sought revenge on other women (Briles, 1987), which provided additional evidence that women with lower self-esteem exhibited increased negative competition. Contrary to the theories detailed above, Gali-Alfonso (2005) found that women's low self-esteem was not correlated with envy. However, Gali-Alfonso did not study envy as part of negative competition among women.

The relationship between self-esteem and competition among women has not been extensively studied. Competition among women and self-esteem were theorized to

be negatively related. Women with higher levels of competition were posited to be at lower levels of self-esteem.

*Self-esteem as a moderator variable.* As discussed above, self-esteem was theorized to be negatively related to competition among women. Self-esteem was also postulated to be associated with friendship. It was posited that girls with high self-esteem had high quality friendships, since girls tended to identify themselves within relationships (Thomas & Daubman, 2001). However, one study found that girls' self-esteem was not correlated with the friendship quality of their same-sex friend (Thomas & Daubman), although another study found that in women's same-sex friendships, the positive qualities of the friendships were positively related to self-esteem (Voss et al., 1999).

Women's self-esteem was proposed to impact their relationships with female friends (Schultz, 1991), and women's friendships with other women were theorized to be essential to women's identities (Miller, 1986). Likewise, Downie and Robbins (1998) found that friends were an integral base of esteem for females. Additionally, women who felt personally deficient were found to have less intimacy in their friendships than those who felt more positively about themselves (Cowan & Ullman, 2006).

Therefore, women with higher self-esteem seemed to experience higher quality friendships that included intimacy and openness, so that the constructs were theorized to be positively associated. In turn, self-esteem was postulated to moderate the relationship between women's intimacy in same-sex friendships and competition among women by enhancing the relationship. In effect, self-esteem was theorized to augment the effect of friendship intimacy on competition among women.

Self-esteem was also posited to moderate the relationship between hostility toward women and competition among women. The construct of hostility toward women has been associated with low self-esteem. Loya et al. (2006) proposed that women who were hostile toward other women felt personally deficient. In fact, women with lower personal self-esteem evidenced higher levels of hostility toward women (Cowan et al., 1998). Additionally, Cowan and Ullman (2006) found that women with higher feelings of personal inadequacy also had higher levels of hostility toward women. The personal inadequacy construct in Cowan and Ullman's research included a measure of self-esteem, so that perhaps women who experienced lower self-esteem were more hostile toward other women. Therefore, hostility toward women was theorized to be negatively associated with self-esteem. Furthermore, self-esteem was postulated to moderate the relationship between the construct of hostility toward women and competition among women by buffering the positive correlation between hostility toward women and competition among women.

#### *Competition Among Women and Ethnicity*

Due to the deficiency of research regarding competition among women, no study has directly examined how ethnicity was related to competition among women. Ethnicity has referred to cultural groups to which individuals belonged, with which individuals identified, and in which individuals were acknowledged (Banks, 1987; Collier & Thomas, 1988). Harris-McDonald and Mollen (2006) analyzed their data for effects of ethnicity on competition among women, but found no differences in level of competition among women based on ethnicity. However, the lack of differences for ethnicity may

have been due to the fact that only 11.4% of their participants identified as ethnicities other than White.

Previous research illuminated the fact that the effects of ethnicity on competition among women should be studied (Cashdan, 1998; Harris-McDonald & Mollen, 2006; Joseph, 1985). Theory and research regarding ethnicity and the components of competition among women were mainly addressed for White U.S. women. Few investigations including components of competition among women were undertaken with U. S. Latina women, although slightly more research regarding U.S. Black women was conducted, as described below. It was noted that no research was conducted regarding competition among women or any of its components for ethnicities other than Black, Latina, or White.

In a study of Chinese women in Taiwan, Chang and Holt (1991) found that Asian women were more collectivistic and less individualistic, as they placed more value on groups close to them such as family and friends. Thus, Chinese women in Taiwan were more group-oriented and may therefore have competed less individually with other women. Although U.S. Asians were exposed to the individualistic, autonomous U.S. culture, they were found to maintain the collective ideals of sustaining, caring for, and honoring their families (Fuligni et al., 1999). As a result, U.S. Asian women were theorized to be less competitive than other ethnicities influenced by individualistic values, such as independence and individualism. No research studies have directly examined components of competition among women with women from Asian countries, or with U. S. Asian women.

U.S. Latinas and Latinos were also found to tend toward collectivistic values, such as highly regarding adults and being devoted to their families (Negy, 1993). However, young Latinas were increasingly reported as being disloyal to other Latinas and being competitive with each other over males (Taylor et al., 2007). In one study, Latina girls described some other Latinas in derogatory terms, such as malicious and dishonest; in spite of this, they were able to establish trusting bonds with members of their ethnic group and grew with the support of other Latinas (Taylor et al.). Therefore, because of Latinas' collectivist orientation, and due to their reported ability to find support and mutuality with other Latinas, they were posited to be less competitive with other women than other more individualistic U.S. ethnicities, such as White women.

Black U. S. women were also described as collectivistic in orientation, with less stress on the individual and more focus on the collective, extended family (Watson & Protinsky, 1988). However, some research studies found that Black women competed with other women because of the strength of Western cultural values (Brown, 2003; Robinson & Howard-Hamilton, 1994) and powerful forces from the White culture to be beautiful according to White standards; in this regard, Black women not only competed with other Black women, but also with White women (Brown; Poran, 2006). Indeed, Black women were found to regard other women as competitors, especially in the areas of body image and beauty (Poran; Travis et al., 2000). Black young women were also theorized to compete over males, academic pursuits, community standing, and recognition (Muse, 1987), while older Black women were also posited as competing for men (Tannenbaum, 2002).

Despite evidence that Black women displayed competition among women, Black women may have been exposed to different worldviews than other Western women, so that they learned to be more mutually dependent, valued themselves more, and had more positive body images (Robinson & Howard-Hamilton, 1994). Black women may also have been primed through socialization within their communities for interacting in a racist and oppressive world (Crothers et al., 2005); this preparation may have increased their awareness of the cruelty and unfairness of others and may have served to protect Black women in regard to negative competition with other women. Therefore, Black women were postulated to display less competition among women than those women from more individualistic ethnicities, such as White women.

Competition among women may have occurred in all ethnic groups, but perhaps U. S. White women were more likely to exhibit negative competition with other women than those of other ethnicities (Brown, 2003). One possible reason for White women's increased competition among women was the idea that they felt the most need to gain the favor of dominant White males, in order to somehow share their power (Brown). On the other hand, other ethnic groups may have been aware of their powerlessness and may have been more willing to retaliate against the dominant culture (Chesler, 2001; Crothers et al., 2005).

White U.S. women have been socialized to be nice and to hide negative feelings such as anger, whereas other ethnic groups may not have been taught the same implicit rules within their ethnic groups (Brown, 2003; Chesler, 2001; Crothers et al., 2005). Accordingly, White girls were found to exhibit increased relational aggression, compared

to their non-White peers (Crothers et al.). Young White women may have been especially vulnerable to Western compliance ideals because their ethnic communities have not typically endorsed resistance to the dominant culture's norms, as other ethnicities might have; additionally, White girls and women were rewarded with the approval of powerful White men if they abided by the dominant culture's decree that they be perpetually kind (Brown). Thus, White women may have been more likely than other ethnic groups to express competition among women, particularly through indirect aggression.

Research that examined the experiences of women of color, including Asians, Blacks, Latinas, Native American, and Native Alaskan American women, found that women of color in general compared themselves among each other and to White women (Pearson, 2003). Additionally, this research held that women of color have competed within and outside their ethnic groups for resources, such as government funding (Pearson). Both of these findings implied that women of color engaged in competition, although they did not directly address competition among women. In contrast, another study found that women from ethnic minority backgrounds, including Blacks, Latinos, and Native Americans, were less competitive than White women when engaged in competition related to their careers (Johannessen, 1992).

Although some research supported women of color's competition among women in regard to some aspects (Muse, 1987; Poran, 2006; Taylor et al., 2007), women of color may have had very different experiences than White women, which may not have been fully encompassed by theories that have applied to White women (Pearson, 2003). For example, women of color may have struggled to sustain a sense of individual identity in a

society that has not valued their experiences (Pearson), so that they may have been more focused on identity within their groups than White women. Consequently, White women, who have garnered more power in society than women of color, may have focused less on issues of personal identity and more on how they could succeed over others, such as in competition with other women. Thus, White women were theorized to exhibit more competition among women than women of color, including Asians, Blacks, and Latinas.

Research results have appeared mixed regarding whether or not women of color may have engaged in the same amount of negative competition as White women. However, these varied results could have been due to the fact that little research has been undertaken examining the relationship between competition among women and women from various ethnic groups. Because U.S. women of color have focused on collective values (Fuligni et al., 1999; Negy, 1993; Watson & Protinsky, 1988) and have communities that may have supported resistance to dominant values (Brown, 2003; Chesler, 2001; Crothers et al., 2005), they were posited to exhibit less competition among women than White U. S. women.

*Ethnicity as a moderator variable.* As described above, competition among women was theorized to vary according to women's ethnicities. Additionally, ethnicity was conjectured to moderate the relationship between competition among women and friendship. It was noted that friendships of women of color were largely excluded from friendship research (Knickmeyer et al., 2002). Thus, the research on women of various ethnicities was compared to the existing research on White women's friendships. Also, the following studies concerned friendships within ethnicities, as opposed to cross-ethnic

friendships, since similarity of ethnicity has been considered a central part of friendship (Furman, 1985; Hartup, 1983). It was noted that, to the author's knowledge, there has been no research on the friendships of women of other ethnicities other than Asian, Black, Latina, or White. However, some research studies were conducted which studied the influence of ethnicity on the friendships of the above groups.

Friendships of individuals from Western nations, as opposed to friendships in Asian cultures, were shown to involve more personal sharing (Gudykunst & Nishida, 1983; Won-Doornink, 1985) and to be more equal, expressive, and open than friendships of Koreans (Goodwin & Lee, 1994). Asians were found to communicate in indirect and less emotional ways than Whites (Bruneau & Ishii, 1988) and to communicate less validation of their friends (Samter, Whaley, Mortenson, & Burleson, 1997). The less open nature of Asian friendships may have derived from the fact that some Asian cultures have rules regarding revelation in friendship that may have discouraged emotional expression (Bond & Hwang, 1986). Because close friendships have been defined in the U. S. as open and egalitarian (Knickmeyer et al., 2002; Schultz, 1991), and because Asian women may have endorsed values more consistent with Eastern traditions (Fuligni et al., 1999), ethnicity was theorized to affect friendship intimacy. Thus, U. S. White women may have endorsed higher levels of friendship intimacy than U. S. Asian women. However, it was noted that the U. S. valued openness and egalitarianism, so U. S. researchers may have overvalued those qualities in friendships, which promoted a culturally-encapsulated view of friendships in the literature. Moreover, friendships in the

Asian culture were not held as inferior to friendships in the U. S. culture, but were simply based on different value systems.

Few studies examined the friendships of Latinas. However, studies found that Latina girls had friendships with other Latinas that were long-standing and trusting (Taylor et al., 2007) and that Latinas characterized their close friendships as supportive and open (Collier, 1996). Another research study described Latina girls' friendships as ideal, in that they were open and accommodating (Way, Cowal, Gingold, Pahl, & Bissessar, 2001). Therefore, Latina women's friendships may have involved more intimacy than those of other minority ethnic groups, such as Blacks or Asians. Since White women's friendships have also been characterized as more open and supportive (Knickmeyer et al., 2002; Schultz, 1991) than other ethnic groups, Latina women and White women were conjectured to report similar levels of intimacy within their same-sex friendships.

Furthermore, White women were theorized to report more intimacy in their friendships than Black women. Black women were found to discuss less personal feelings with their friends than White women (Hammer & Gudykunst, 1987), which could have also decreased their reported levels of intimacy within friendships when compared to White women's levels. Also, as noted above, friends were likely to be similar to each other, which helped establish and maintain friendships (Fehr, 1996, 2000). However, Black women were not found to choose friends who were similar to them, whereas White women were found to choose friends based on similarity (Tolson & Urberg, 1993). Therefore, White women reported more liking and intimacy in their friendships than

Black women since they tended to be more similar to their friends, and since similarity predicted greater friendship enjoyment (Berscheid, 1985).

Based on the above studies, ethnicity appeared to impact intimacy in close friendship. White and Latina women were posited to have greater intimacy in their friendships than other women of color, including Blacks and Asians. Ethnicity was hypothesized to enhance the negative correlational relationship between friendship intimacy and competition among women.

In addition, ethnicity was proposed to moderate the relationship between competition among women and feminist identity development. Two research studies found that feminist identity development did not differ for Black, Native American, and White women (Carpenter & Johnson, 2001) and that members of minority ethnic groups, including Latina, Black, Asian, Native American, and Middle Eastern women, were similarly dedicated to feminism as White women were (Yakushko, 2007). However, the above studies had small numbers of non-White ethnicities represented, which limited the generalizability of their results.

It was noted that feminist theories have not been diverse or multifaceted, as they tended to focus on young, middle-class, able-bodied, White women (Brown & Brodsky, 1992). Pearson (2003) posited that the experiences of women of color were quite different from those of White women, so that conventional feminist theories did not aptly describe their experiences. In fact, Black women reported that feminist ideologies were deficient in matters related to women of color (Myaskovsky & Wittig, 1997) and resisted common descriptions and opinions of feminism (Pearson, 2003). Additionally, Black

women were found to give equal significance to concerns about gender as to matters related to being people of color (Martin & Hall, 1992). Therefore, Black women and other women of color may have focused on issues related to being people of color, and not only on being women; White women might have given increased attention to concerns about being women in general.

Black women, and possibly other women of color, reported different levels of feminist identity development than White women (Boisnier, 2003). The results of one study indicated that Black women, and perhaps other women of color, perceived a conflict between their racial and feminist identities, which caused them to distance themselves from feminist views (Myakovsky & Wittig, 1997). Black women and other minority women's reported levels of feminist identity development may have been lower than those of White women, since the former may not have upheld feminist viewpoints.

Another reason that feminist identity development may have been dissimilar for women of color compared to White women was that women of color likely identified with a womanist, rather than a feminist, orientation (Fischer et al., 2000). A feminist model of development focused on adherence to feminist ideology, but in a womanist model of development, women were able to choose for themselves their identity as women without necessarily including feminist views (Boisnier, 2003; Ossana et al., 1992). The womanist model was posited as accommodating and inclusive of all women (Fisher et al.). Therefore, Black women identified as womanist since it was a broader theory than feminism, whereas White women identified with the course of feminist

development. Additionally, Asian women were postulated to identify more with a womanist than a feminist model of development (Alarcon, 1997).

Thus, ethnicity was theorized to affect feminist identity development, since White women have reported higher levels of feminist identity development than women of color. As previously described, competition among women was also posited to be related to feminist identity development (e.g., Chesler, 2001; Mahalik et al., 2005; Taylor, 1994). Furthermore, ethnicity was hypothesized to enhance the negative relationship between feminist identity development and competition among women.

Finally, ethnicity was also proposed to moderate the relationship between competition among women and self-esteem. To some extent, self-esteem was found to depend on the groups with which one was associated (Rosenberg, 1965). Consequently, individuals' group membership affected their self-acceptance and thus their self-esteem (Manning, 1997).

According to social identity theory (Tajfel & Turner, 1979), ethnic minority groups internalized the dominant culture's negative view of them, which negatively affected their self-esteem. Jost's (1995) concept of false consciousness also predicted that ethnic minority members took on the norms of the dominant group, began to believe they were inferior, and came to view other members of their group as inferior. If ethnic minority women thought that they were inferior to the dominant, White group, their self-esteem likely suffered. Likewise, ethnic minority women internalized their own oppression and created distance from the group and also from themselves (Yamato, 1990); their self-esteem may have been negatively impacted in that situation as well.

Thus, women from ethnic minority groups possibly had lower self-esteem than White women. While White women may also have internalized negative self-views as a result of being oppressed by the dominant White male culture (Brown, 2003; Yamato, 1990), women of color have been exponentially negatively affected by being oppressed as women and as members of ethnic minority groups.

Research regarding self-esteem differences based on various ethnicities found that Blacks had higher self-esteem than Whites, and Whites had higher self-esteem than other ethnicity groups, including Latinas, Asians, and Native Americans (Twenge & Crocker, 2002). Other research also supported that Blacks scored higher on self-esteem than Whites (Hoelter, 1983; Tashakkori & Thompson, 1991; Yang & Blodgett, 2000). Blacks may have evidenced higher self-esteem than Whites because the roots of their self-esteem may have been in different sources; it was postulated that Whites based their self-esteem on acceptance by others, whereas Blacks did not (Zeigler-Hill, 2007).

Additionally, Blacks may have evidenced higher self-esteem than other ethnic minority groups because the groups may have varied in regard to their adherence to individualism and collectivism (Twenge & Crocker, 2002); for example, in some collectivistic Asian cultures, Asians judged themselves in order to determine how to better themselves so as to gain peaceful relationships (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). Thus, because they may have been critical of themselves, Asians may have scored lower on self-esteem than Blacks and Whites. Latina/os, on the other hand, were postulated to have self-esteem similar to that of Whites, since their adherence to individualism was similar to that of Whites (Oyserman, Coon, & Kimmelmeier,

2002); however, as noted above, Latina/os evidenced lower self-esteem than Whites in an empirical meta-analysis (Twenge & Crocker).

Much less research has been conducted regarding the study of self-esteem among ethnic minorities other than Blacks (Jackson & Lassiter, 2001; Porter & Washington, 1993). Some studies found that Asian children had lower self-esteem than other ethnic groups, including Whites, Blacks, and Latina/os (Bowler, Rauch, & Schwarzer, 1986; Pang, Mizokawa, Morishima, & Olstad, 1985). However, few studies have examined adult self-esteem in ethnicities other than Black and White (Porter & Washington).

Thus, ethnicity was theorized to impact self-esteem, with Blacks having higher self-esteem than Whites, and Whites evidencing increased self-esteem in comparison to other ethnic minority groups. As noted previously, ethnicity was also posited to be related to competition among women. Moreover, ethnicity was hypothesized to enhance the negative relationship between self-esteem and competition among women.

#### *Competition Among Women and Age*

Women's levels of competition among women were posited to depend on their age. While feminist researchers have held that all women may be competitive with other women based on socialization and societal forces (e.g., Brown, 2003, Pogrebin, 1987; Schaeff, 1981), women's individual levels of competition among women varied based on whether they were young or old. Most research on competition among women or its components divided age into components of young and old, typically ages 18 to 30 and ages 50 and above, respectively (Harris-McDonald & Mollen, 2006; Tannenbaum, 2002), with some studies examining middle-aged women, usually with women aged in their

early to mid 30s up to age 50 (Harris-McDonald & Mollen; Johannessen, 1992).

Research found that younger women scored higher on the Competition Among Women Scale, which measured negative competition among women, than middle aged and older women; this finding indicated that younger women were more competitive than older women (Harris-McDonald & Mollen, 2006). It was also postulated that younger women were more competitive than older women, because younger women focused on attractiveness, attention from men, and advancing in their occupations (Tannenbaum, 2002).

Physical attractiveness was found to be a characteristic over which women competed (Gali-Alfonso, 2005; Johannessen, 1992; Pogrebin, 1987; Tannenbaum, 2002). Older women were less jealous of physical attractiveness in other women (Dijkstra & Buunk, 2002) and had less body dissatisfaction than young and middle-aged women (Webster & Tiggemann, 2003), which meant that they focused less on comparing their bodies to those of other women. Also, older women between the ages of 41 and 68 were found to be less evaluative than younger women, which encompassed comparing themselves to other women and downplaying other women's strengths when entering into competition with other women (Johannessen, 1992). Thus, older women may have exhibited less competition among women than did younger women.

Several reasons were posited for younger women's increased competition among women in relation to older women. Compared to older women, younger women were found to more highly regard heterosexual relationships with men (Henderson & Cunningham, 1993) for whom women competed (Chesler, 2001; Ingo et al., 2007).

Younger women may have been in competition for romantic partners, and older women may have already had romantic partners. Additionally, since women were proposed to compete over youth and beauty (Tannenbaum, 2002), younger women may have been in a position in which they believed they could be competitive and win. Younger women may also have thought they needed to prove themselves capable of success, since older women may have been more experienced in different life areas.

Although the majority of research found that younger women were more competitive than older women, other theorists and researchers indicated otherwise. Caplan (1981) theorized that as women aged, they became increasingly concerned with attempting to be attractive in comparison to others in order to maintain their self-value. Also, older women were concerned with weight and diet in order to attain a socially approved body size (Guendouzi, 2004), and they also were postulated to compete with younger women for men, particularly if they were divorced (Travis et al., 2000). In addition, older women were theorized to compete with women their own age as well as younger women over appearance (Barash, 2006). Cashdan (1998) found that younger women were not significantly more competitive than older women, particularly in the area of physical attractiveness. However, despite the aforementioned alternative findings, the majority of research studies (e.g., Harris-McDonald & Mollen, 2006; Johannessen, 1992) found that younger women evidence more competition among women than do older women. Thus, younger women were theorized to be more competitive than older women.

*Age as a moderator variable.* As theorized in the previous section, age was proposed to be related to women's levels of competition among women. However, it was conjectured that age was related to other variables, including friendship. Although few studies have examined how women's friendships differed depending on women's ages (Taylor, 1994), one study found that friendship in older women's lives, in particular, was central to their well-being; for example, older women's friends were reported to aid them in the midst of family changes or losses (Gouldner & Strong, 1987). Middle-aged women's emotional closeness with friends was also found to be high, and they reported their friendships were supportive and valuable (Wettstein, 1998).

Younger women may have had obligations, such as raising children, which prevented them from devoting sufficient time to intimate friendships, causing them to have fewer intimate friendships than older women (Fischer & Olicker, 1983). Thus, younger women's friendships may have suffered more than older women's friendships. In fact, women who were 65 or older had more friendships than young women of childbearing age (Fischer & Olicker), indicating that they had more time to devote to friendships. Younger women may also have been looking for suitable romantic partners, so they may have been more competitive with women friends (Campbell, 2002; Hooks & Green, 1993; Ingo et al., 2007) and less intimate with other women than older women. Consequently, younger women's friendships may have lacked the intimacy of older women's friendships.

However, adolescent and young adult women were found to have friendships that met their needs for intimacy and closeness (Zarbatany et al., 2004). In addition, women

and men reported the importance of having friends who were similar to them, including in age (Bliss, 2000). Therefore, women's intimacy within their female friendships may have involved proximity of age.

Because little research was conducted on how age was related to women's friendship, the need existed to expand the understanding of that relationship. Age was theorized to enhance the negative relationship between friendship intimacy and competition among women. It was posited that when age was held constant, the relationship between friendship intimacy and competition among women would be weaker.

Cowan et al. (1998) found that younger women were more hostile toward women than were older women, which they hypothesized may have concerned younger women's competition for mates. In addition, Cowan (2000) found that older college women, as compared to younger college women, were less hostile toward women. Hence, age was theorized to be related to hostility toward women, and age was also presumed to be related to competition among women. Therefore, age was conjectured to moderate the relationship between competition among women and hostility toward women. Age was hypothesized to buffer the positive relationship between hostility toward women and competition among women.

In addition, age was also proposed to moderate the relationship between competition among women and self-esteem. Dietz (1996) posited that older women had higher self-esteem than younger women, because they were not as interested in social comparison, but rather focused on their achievements in life. As noted previously, older

women reported lower dissatisfaction with their bodies; additionally, older women with less body dissatisfaction also had higher self-esteem than middle-aged or younger women (Webster & Tiggemann, 2003). However, it was unclear if older women were less dissatisfied with their bodies because they had higher self-esteem, or if they had higher self-esteem because they were less dissatisfied with their bodies.

Additionally, self-esteem was posited to drop in adolescent girls at approximately the age of 12, when they lost their symbolic voices and were subjected to the Western ideal of quiet, nice girls (Brown & Gilligan, 1992). Indeed, adolescent girls between the ages of 13 and 16 years were found to have lower self-esteem than girls who ranged in age from 9 to 12 years (Biro, Striegel-Moore, Franko, Padgett, & Bean, 2006). While girls' self-esteem declined, it was conjectured that women's self-esteem increased as they grew older due to greater reliance on themselves and an increased competence when interacting with their environments (Markham, 2006). This evidence suggested that younger women have lower self-esteem than older women.

Despite the fact that some studies found that older women had higher self-esteem than younger women, another study found that older women reported less self-esteem than younger women, possibly due to the focus on beauty in the Western culture, which created loss of self-esteem as women aged (McMullin & Cairney, 2004). However, more studies suggested that older women may have higher levels of self-esteem than younger women. Age was hypothesized to enhance the negative relationship between competition among women and self-esteem.

Research was conducted regarding the relationship of age and feminist identity development, and overall the findings were conflictual. One study found that age was associated with feminist identity development, in that younger women were at lower levels of feminist identity development (Taylor, 1994). However, Yakushko (2007) found that no relationship existed between women's age and their identity as feminists. Yet another study maintained that women of different ages had different influences on their feminist ideals, but that women of all ages evidenced similar feminist ideals (Zucker & Stewart, 2007).

In addition, one research study posited that older women were more likely than younger women to describe themselves as feminists (Rupp, 2001); however, another study found that younger women were less likely to identify as feminists, but just as likely as older women to maintain feminist principles (Myaskovsky & Wittig, 1997). Therefore, younger women may have scored at high levels of feminist identity development, without having labeled themselves as feminists. Hence, overall, it appeared that age was not related to feminist identity development. Therefore, it was held that age did not moderate the relationship of competition among women and feminist identity development.

### Purpose and Significance of Study

The aim of the current study was to generate more research in the area of competition among women by examining its relationship with six other variables: friendship intimacy, women's hostility toward women, feminist identity development, self-esteem, ethnicity, and age. With the information gleaned from this examination, the

construct of competition among women and its relationship to the six other variables of interest was clarified. Feminist theory informed the current research because it provided the best explanation for competition among women, as outlined in the literature review. This study not only added to the research base of competition among women, but it allowed more research to be generated, since its exploratory nature did not explain causal factors between competition among women and the other variables of interest.

The present study was important to increase the examination of competition among women, since some studies of competition measured only interpersonal competition (e.g., Griffin-Pierson, 1990; Helmreich & Spence, 1978; Houston et al., 2002; Martin & Larsen, 1976; Smither & Houston, 1992). Additionally, the present study aspired to add to the previous studies that have investigated negative competition among women as a separate construct than women's competition in general. It was noted that other studies have examined embedded components of competition among women (e.g., Dijkstra & Buunk, 2002). Furthermore, because the aforementioned studies used different methodologies, as described in the literature review, the results of each study were not able to be easily compared with or among each other.

The current study sought to introduce the standardized study of competition among women by utilizing the CAWS (Harris-McDonald & Mollen, 2006). Consequently, competition among women was clarified in terms of its destructiveness, and the study also provided knowledge related to minimizing the effects and influence of competition among women over women's lives. In addition, the current study provided information that discredited myths about women's behavior toward each other, such as

the belief that all women's relationships involved pettiness (Tannenbaum, 2002). The findings of the study offered clues about women's engagement in competition with other women, so that the phenomenon was better understood.

Furthermore, the present study sought information regarding the influence of women's ethnicities and ages on competition among women. Because the experiences of women of color have not been studied as much as those of White women in several areas, including competition among women, friendship intimacy, and feminist identity development, this research provided valuable information regarding the experiences of women of color. Additionally, studies examining the impact of women's ages were not as prevalent as research investigating young college women's experiences, so the current study also illuminated issues surrounding women's varied experiences related to their ages. Thus, the study expanded the perspective and diversity of current research in each of the aforementioned areas. Moreover, because the current study included a focus on the variables of ethnicity and age, it enabled the study results to be applied to a broad group of women, including women with a range of ethnicities and ages.

An elucidation of the relationship between competition among women and the variables of friendship intimacy, hostility toward women, feminist identity development, self-esteem, ethnicity, and age enabled researchers and clinicians to determine to which variables competition is related. This information was proposed to determine if competition with other women was part of any problems in women's lives that interfered with healthy functioning. Hence, the study's results were posited to aid mental health workers in their work with female clients. The study also created greater complexity in

the explanation of competition among women, since it examined moderator variables; these variables were postulated to provide greater depth and sophistication to psychological research (Frazier et al., 2004) so as to advance knowledge in the area of competition among women, in particular, and in the field of women's psychology, in general.

### Research Questions and Hypotheses

The relationships between competition among women and the variables of friendship intimacy, hostility toward women, feminist identity development, self-esteem, ethnicity, and age were examined. Specifically, scales measuring each construct were administered, and participant scores on each construct were calculated, compared, and analyzed to determine if any of the variables were related to competition among women or to each other, as hypothesized below. The scales used in the study have been described in the Method chapter of this paper.

The aims of the study were to answer the following research questions:

1. What variables correlate with competition among women (CAW)?
2. What variables moderate the correlations between CAW and other variables?
3. How is competition among women manifested differently based on the variables of ethnicity and age?

The research questions were answered by the hypotheses outlined below. The terms used to indicate moderation by variables included buffering and enhancing, which were discussed in Frazier et al. (2004). Buffering indicated that the moderator variable shielded the effect of the predictor (independent) variable on the criterion (dependent)

variable, so that the moderator variable lessened the effect of the predictor variable on the criterion variable. Thus, when the moderator variable was removed from consideration, the relationship between the predictor and criterion variables was stronger. Alternately, if a moderator variable enhanced the relationship between the predictor and criterion variables, then it worked with the predictor variable to strengthen the relationship between the predictor and criterion variables. Thus, when the moderator variable was removed, the relationship between the other variables was weaker. Additionally, for a moderator variable to have provided an enhancing function, the moderator variable and the predictor variable must have affected the criterion variable in the same direction. The current study tested the following hypotheses:

1. Competition among women (CAW) will be negatively correlated with friendship intimacy, feminist identity development, self-esteem, and age.
2. CAW will be positively correlated with hostility toward women.
3. White women will evidence higher levels of CAW than women of color.
4. Hostility toward women (HTW) will serve as a buffering moderator of the relationship between CAW and the following variables: friendship intimacy and feminist identity development.
5. Feminist identity development will serve as an enhancing moderator of the relationship between CAW and the following variables: friendship intimacy and self-esteem.
6. (a) Self-esteem will serve as a buffering moderator of the relationship between CAW and HTW.

- (b) Self-esteem will serve as an enhancing moderator of the relationship between CAW and friendship intimacy.
7. Ethnicity will serve as an enhancing moderator of the relationship between CAW and the following variables: friendship intimacy, feminist identity development, and self-esteem.
8. (a) Age will serve as an enhancing moderator of the relationship between CAW and both friendship intimacy and self-esteem.
- (b) Age will serve as a buffering moderator of the relationship between CAW and HTW.

## CHAPTER III

### METHOD

#### Participants

The participants consisted of 563 heterosexual women, ranging in age from 18 to 67 years old, and were recruited primarily from a Southwestern state university and from a Southwestern state community. The investigator chose the age and recruitment groups in order to maximize the diversity of the participants, so that the sample would consist of women with a range of ages, ethnicities, and life experiences. In addition, the investigator chose to study only heterosexual women, as explained in the Introduction section of this paper. Additionally, the investigator did not include men in the current study, as the research directly addressed negative competition among women.

#### Instrumentation

Six questionnaires were used in the study. These questionnaires included an author-generated demographics questionnaire (see Appendix A), the Rosenberg Self-Esteem Scale (Rosenberg, 1965; see Appendix B), the Miller Social Intimacy Scale (Miller & Lefcourt, 1982; see Appendix C), the Feminist Identity Composite Scale (Fischer et al., 2000; see Appendix D), a modified version of the Hostility Toward Women Scale (Check et al., 1985) developed by Lonsway and Fitzgerald (1995; see Appendix E), and the Competition Among Women Scale (Harris-McDonald & Mollen,

2006; see Appendix F). The descriptions and psychometrics of the measures used in this study have been detailed below.

#### *Demographics Questionnaire*

The researcher-generated demographics questionnaire included general participant information. The questionnaire assessed age, ethnicity, partnership status, occupation, and level of education. Since only data from heterosexual women were considered in this study, participants were asked to identify their sexual orientation so that responses from non-heterosexual women were not included in the analyses.

#### *Rosenberg Self-Esteem Scale*

The Rosenberg Self-Esteem scale (RSES; Rosenberg, 1965) was used to measure participants' levels of self-esteem. The scale measured individuals' evaluation of their self-worth (Rosenberg) and was a standard by which other measures of self-esteem were evaluated (Blascovich & Tomaka, 1993). This measure consisted of 10 items which participants responded to on a four-point scale ranging from zero (*strongly disagree*) to three (*strongly agree*). Five questions in the scale were reverse scored. Higher scores denoted higher self-esteem. Examples of items included "At times, I think I am no good at all" and "I certainly feel useless at times." The scale demonstrated high reliability, with Cronbach alphas ranging from .77 to .89 (Blascovich & Tomaka; Cowan & Mills, 2004; Dobson, Goudy, Keith, & Powers, 1979; Fleming & Courtney, 1984).

#### *Miller Social Intimacy Scale*

The Miller Social Intimacy Scale (MSIS; Miller & Lefcourt, 1982) was used to measure intimacy within each participant's closest female friendship. The scale measured

currently experienced affective and cognitive intimacy within relationships, including marriage and friendship. The scale was originally developed to address an absence of scales measuring intimacy within relationships (Hook, Gerstein, Detterich, & Gridley, 2003). For the current study, participants were asked to respond to the items while considering their relationship to their closest female friend. The questionnaire consisted of 17 items and had a 10-point scale for each item that measured the frequency (*very rarely to almost always*) and intensity (*not much to a great deal*) experienced in participants' relationships. Two items were reverse scored, and higher scores indicated a greater level of intimacy. Examples of items included "How often do you show her affection?" and "How important is your relationship with her in your life?" The reliability for the MSIS was high, with Cronbach's alphas of .91 and .86 and test-retest coefficients at .96 and .84; additionally, convergent validity was adequate at a coefficient of .71, and the measure demonstrated suitable divergent and construct validity (Miller & Lefcourt, 1982).

#### *Feminist Identity Composite Scale*

The Feminist Identity Composite scale (FIC; Fischer et al., 2000) was used to assess participants' level of feminist identity development. The scale consisted of items from the Feminist Identity Development Scale (Bargad & Hyde, 1991) and the Feminist Identity Scale (Rickard, 1987), which were developed to assess Downing and Roush's (1985) model of women's feminist identity development. The items in the FIC were chosen from the two aforementioned scales because they best assessed the levels of feminist identity development. The FIC scale was composed of five subscales, including

passive acceptance, revelation, embeddedness/emanation, synthesis, and active commitment. The participants indicated how well each item described them by rating the item on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores on a subscale indicated higher agreement with items denoting that particular level of feminist identity development. Participants' highest mean subscale score determined level of feminist identity. Thus, if women scored highest on the revelation subscale, their feminist identities were in the revelation stage. Examples of items on the FIC included "I like being a traditional female" and "I enjoy the pride and self-assurance that comes from being a strong female." The FIC subscales demonstrated adequate reliability with reliability coefficients for each subscale above .71, and also demonstrated adequate convergent, discriminate, and structural validity (Fischer et al.).

#### *Hostility Toward Women Scale*

Lonsway and Fitzgerald's (1995) modified version of the Hostility Toward Women scale (HTW; Check et al., 1985) was used to measure participants' levels of hostility toward other women. The original HTW scale consisted of 30 items centered on resentment and mistrust of women and was answered in a true/false response format. In the modified version used for the current study, there were 10 items, derived from the original HTW scale (Check et al.), that participants rated on a Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Two items of the modified scale were reverse scored. Higher scores indicated increased levels of hostility toward women. Sample items from the modified HTW scale included "I think that most women would lie just to get ahead" and "Other women are responsible for most of my troubles." The modified HTW

demonstrated adequate reliability, with coefficient alphas ranging from .73 to .85 (Cowan & Mills, 2004; Cowan et al., 1998; Lonsway & Fitzgerald, 1995).

### *Competition Among Women Scale*

The Competition Among Women Scale (CAWS; Harris-McDonald & Mollen, 2006) was used in the current study to measure women's level of negative competition with other women. The CAWS was developed to measure women's detrimental behaviors of rivalry and destructive feelings of envy and jealousy, as well as their desire to be superior to other women. The questionnaire consisted of 32 total items, including 16 items written in both first and third person to address the issue of social desirability, since some women may have been less likely to report that they themselves engaged in competition than that other women engaged in competition. Harris-McDonald and Mollen found that there was a small significant correlation between a short version of the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964) developed by Reynolds (1982) and the following: the entire CAWS scale ( $r = .27, p < .01$ ); the 16 first person CAWS items ( $r = .27, p < .01$ ); and the 16 third person CAWS items ( $r = .22, p < .01$ ). Thus, for both sets of items, there was a small effect for social desirability, although this effect was slightly greater for items written in the first person. Therefore, social desirability might have affected participant responses on the CAWS. Participants responded on a 5 point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores indicated increased levels of competition among women. An example of a third person item contained in the CAWS was, "Most women feel they must compete with other women to find a good romantic partner." An example of a first person

item contained in the CAWS was, “I must compete with other women to find a good romantic partner.” Harris-McDonald and Mollen (2006) found that the CAWS items loaded on one general component in principal components analysis, so that the 32 items had adequate underlying structure to be used as a whole to measure the construct of competition among women. The authors also found that the CAWS had high internal consistency, with a Cronbach’s alpha of .96 and a split-half correlation of .82, and that it demonstrated adequate convergent and divergent validity.

#### Procedure

The principal investigator recruited participants from five different sources, including university students, university student organizations, community organizations, Internet discussion groups and blogs, and friends and family members of the investigator. The Request for Assistance Letter (see Appendix G) was mailed electronically to contacts of the aforementioned sources, including university instructors, leaders or contacts of university student organizations and community organizations, friends, and family. The Request for Assistance Letter included a Request for Participation Letter (see Appendix H) that was forwarded to potential participants. The Request for Participation Letter outlined the instructions for participation in the study and encouraged contact persons and participants to forward the Request for Participation to women meeting the demographic requirements of the study. Thus, the study employed snowball sampling (Loewenthal, 2001). The Request for Participation Letter was also posted to Internet discussion groups and blogs that included members who were diverse in terms of age and ethnicity, such as on-line discussion groups for a retirement community and for Black women.

Additionally, a Blackboard recruitment announcement (see Appendix I) was sent to university instructors to post on-line.

Participants had the opportunity to enter a drawing for one of two \$50 Target gift cards as an incentive to participate in the study. Participants were also offered the chance to receive a summary of the study if they chose. University student participants who were enrolled in undergraduate Introduction to Psychology and Developmental Psychology courses at a Southwestern state university had an alternative opportunity to accrue course credit that satisfied a course research requirement if they participated in the study. The students had the opportunity to participate in the current study or a number of other activities to accrue course research credit, such as participation in other studies, attendance at research symposiums, or completion of journal article reviews; thus, students were not pressured to complete the current study.

The sample was Internet-based in an effort to ensure that it was well-representative of women in society. Hence, the sample for the current study was broader than if the researcher used only one sample source, such as undergraduate students (Kraut et al., 2004). Additionally, participants may have more readily reported sensitive behaviors, such as drinking or smoking, over the Internet than in traditionally formatted surveys (Wright, Aquilino, & Supple, 1998). The participant sample was drawn from multiple sources in order to increase diversity in the participant pool, including differences in age and ethnicity. Community and student organizations with access to diverse women were utilized, as were Internet discussion groups and blogs with a focus on various ethnic identities and ages of women.

Participants completed a survey on a web interface created on Psychdata.com, which is an Internet site that allows psychology researchers to set up and administer research surveys for a fee. The survey consisted of an informed consent screen (see Appendix J), a demographic information sheet, the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the Miller Social Intimacy Scale (Miller & Lefcourt, 1982), the Feminist Identity Composite scale (Fischer et al., 2000), a modified version of the Hostility Toward Women scale (Check et al., 1985) developed by Lonsway and Fitzgerald (1995), and the Competition Among Women Scale (Harris-McDonald & Mollen, 2006). Participants completed the instruments in the order listed above. The hyperlink (URL address) to the survey was provided to participants in an email containing the Request for Participation Letter. Participants mouse-clicked the hyperlink or copied and pasted the link into their browser address bar to access the survey.

Once the participants were connected to the survey, they were automatically taken to the Informed Consent Screen, which informed them of the study's purpose, gave them contact information for the investigator and her research advisor, and explained the potential risks and benefits of the study. The informed consent screen listed the phone number to the American Psychological Association referral service, should participants have needed to seek mental health assistance during or after their completion of the study. Participants were also informed that they could exit the web browser at any time to discontinue their participation in the survey without penalty. Participants were asked to consent to participate in the study by clicking on the continue button at the bottom of the Informed Consent Screen if they had read and agreed to the statements contained therein.

After participants read and agreed to the statements on the Informed Consent Screen, they began completing the survey, which included a demographic information sheet. As part of the demographic sheet, the participants selected their sexual orientation; women who selected orientations other than heterosexual were directed to a debriefing screen (see Appendix K) that thanked them for their willingness to participate and informed them that the study was examining only heterosexual women's experiences based on research literature. Participants who indicated that their sexual orientation was heterosexual continued with the survey, including the instruments listed above.

Participants were not identified as having participated in the study unless they decided to enter their names for one of the two \$50 Target gift cards or requested information about the study or its results, in which case they were prompted to enter their email address after they had completed the survey. Separate spaces were provided for participants to type their email address for the drawing and to receive a summary of study results. However, participants were informed that the investigator was unable to link their email address to their survey responses. In fact, any identifying information that participants chose to give the investigator was housed in a data file that was unable to be linked to participants' surveys.

All responses were completed on-line and securely stored in the Psychdata.com system in an isolated, password-protected database for the duration of the study. No one had access to the data except for the investigator and her research advisor, who were required to enter the Psychdata survey with a protected username and password. No identifying information from the participants was included in the storage of their

responses, and each participant was given a unique respondent identification number that could not be connected to her survey. The participants were not allowed to use the browser's back button to return to previous survey pages, in an effort to prevent third-party viewing of participant results. After the study was complete, the data were stored on a USB flash drive that was located at the investigator's residence in a locked filing cabinet for five years.

### Analysis

An alpha level of .05 was used. The sample size of 563 participants was considered adequate to detect moderate to large effect sizes with a power of .90, given that the research questions were correlational in nature and that the study included six predictor variables (Cohen & Cohen, 1975). The study's hypotheses and respective data analyses are listed below.

<u>Hypotheses</u>	<u>Analyses</u>
1. It was hypothesized that competition among women (CAW) would be negatively correlated with friendship intimacy, feminist identity development, self-esteem, and age.	Pearson's Correlation ( <i>r</i> )
2. It was hypothesized that CAW would be positively correlated with hostility toward women.	Pearson's Correlation ( <i>r</i> )
3. It was hypothesized that White women would evidence higher levels of CAW than women of color.	One-Way ANOVA with post-hoc Tukey's Honestly

3. (cont.)	Significant Difference analysis Eta <sup>2</sup> calculation Cohen's D effect sizes
4. It was hypothesized that hostility toward women (HTW) would serve as a buffering moderator of the relationship between CAW and the following variables: friendship intimacy and feminist identity development.	Partial Correlation for each hypothesized relationship
5. It was hypothesized that feminist identity development would serve as an enhancing moderator of the relationship between CAW and the following variables: friendship intimacy and self-esteem.	Partial Correlation for each hypothesized relationship
6. (a) It was hypothesized that self-esteem would serve as a buffering moderator of the relationship between CAW and HTW.	Partial Correlation
6. (b) It was hypothesized that self-esteem would serve as an enhancing moderator of the relationship between CAW and friendship intimacy.	Partial Correlation
7. It was hypothesized that ethnicity would serve as an enhancing moderator of the relationship between CAW and the following variables: friendship	Partial Correlation for each hypothesized relationship

7.(cont.) intimacy, feminist identity development, and self-esteem.	
8. (a) It was hypothesized that age would serve as an enhancing moderator of the relationship between CAW and both friendship intimacy and self-esteem.	Partial Correlation
8. (b) It was hypothesized that age would serve as a buffering moderator of the relationship between CAW and HTW.	Partial Correlation

## CHAPTER IV

### RESULTS

#### Demographics

Participants included 657 female university students and women who had access to the internet. Incomplete data were collected from 14% ( $n = 92$ ) of the participants; those participants were excluded from the present sample, so that 563 participants remained for data analysis. The final sample of 563 did not significantly differ from the original sample of 657. However, a slightly greater percentage of both women over the age of 50 (7%) and women with professional degrees (8.7%) did not complete the survey compared to those who did complete it. The majority (75%) of those women who did not complete the full survey stopped either after they had entered their demographic information or immediately after the first questionnaire. Due to a loss of data, more specific comparisons between those who completed participation and those who did not were not feasible. Due to the fact that some participants were university students taking the survey for course credit, some women may have attempted to rush to the end of the survey to obtain credit. The sample was young,  $M = 25.33$ ,  $SD = 11.04$ . Additional demographic information for the sample of 563 participants has been presented below (see Table 1).

Table 1

*Participant Demographics*

	Frequency	Percentage of Total
<b>Ethnicity</b>		
Asian	36	6.4
Black	100	17.8
Latina	79	14.0
Indigenous	7	1.2
White	321	57.0
Other	20	3.6
<b>Partnership Status</b>		
Single	207	36.8
In a Relationship	211	37.5
Married	131	23.3
Separated/Divorced	11	2.0
Widowed	1	.2
<b>Highest Educational Level</b>		
High School Graduate	210	37.3
1-3 years College	192	34.1
4-year College Graduate	97	17.2
Professional Graduate	58	10.3
Less than 7 years School	1	.2

As can be seen in Table 1, the majority of participants were in their mid-20's and from one of the following groups: White women, either single or currently in a romantic relationship, and were either high school graduates or had one to three years of college. Therefore, the sample appeared to be relatively young and moderately educated, and also appeared to be in earlier stages of relationships with romantic partners. A relatively large percentage of the sample included women from ethnicities other than White. It was

noted that data regarding partnership status were missing for two participants, and data concerning highest educational level obtained were missing for five participants.

The means and standard deviations of each instrument that participants completed as part of the study are listed in Table 2.

Table 2

*Descriptive Statistics of the Instruments*

	Min.	Max.	Mean	Instr. Range	Stand. Dev.
RSES Scores	18	40	31.82	10-40	4.56
MSIS Scores	26	168	127.34	17-170	23.24
FIC Scores	1	5	4.73	1-5	.98
HTW Scores	12	64	36.52	7-70	10.25
CAWS Scores	32	160	103.91	32-160	20.04

*Note.* RSES = Rosenberg Self-Esteem Scale; MSIS = Miller Social Intimacy Scale; FIC = Feminist Composite Identity Scale; HTW = Hostility Toward Women Scale; CAWS = Competition Among Women Scale; Min. = Minimum; Max. = Maximum; Instr. Range = Instrument Range; Stand. Dev. = Standard Deviation. Higher scores on each instrument indicated greater self-esteem, friendship intimacy, feminist identity development, hostility toward women, and competition among women, respectively.  $N = 563$  for all instruments.

## Analysis of Hypotheses

The first two of the study hypotheses were analyzed by the Pearson product-moment correlation ( $r_{xy}$ ). The strength of a correlation was judged by Cohen's (1988) criteria: weak was  $r_{xy}$  of .10 to .30; moderate was  $r_{xy}$  of .30 to .50; large was  $r_{xy}$  of .50 and above. Please see Appendix L for a correlation matrix containing all continuous variables used in the study. The square of a correlation ( $r^2_{xy}$ ), known as *the coefficient of determination*, was calculated for each part of a hypothesis tested with Pearson correlations, to define the extent to which the independent variable explained variance in the dependent variable; that is, how understanding differences on a dependent variable is clarified by knowledge of participants' placement on an independent variable.  $r^2_{xy}$  served as an effect size estimate, defining the relative importance of a correlation apart from discovered statistical significance. Cohen's (1988) criteria for interpreting the  $r^2_{xy}$  were used: small = .01; medium = .09; and large = .25.

### *Hypothesis 1*

Hypothesis 1 examined whether competition among women was negatively correlated with the dependent variables of friendship intimacy, feminist identity development, self-esteem, and age. Primarily weak to moderate correlations were detected between competition and the dependent variables (see Table 3.)

Contrary to the hypothesized association, the relationship between competition among women and friendship intimacy was not found to be statistically significant, suggesting that competition among women and friendship intimacy were unrelated. As predicted, a significant negative correlation was observed between competition among

women and both feminist identity development and self-esteem, although both relationships were weak. In general, effect sizes were trivial. These findings suggest that the influence of feminist identity development and self-esteem on expression of competition among women was negligible.

The correlation between competition among women and age was in the predicted direction, with age accounting for substantial variance in competition among women. This finding suggested that as the sample's age increased, their level of competition among women decreased. The result also indicated that age had a stronger influence on competition among women than the previously mentioned variables, including friendship intimacy, feminist identity development, and self-esteem.

Table 3

*Zero-Order Pearson's Correlations and Effect Sizes Between Competition Among Women and Other Variables of Interest*

Analysis	Variable 1	Variable 2				
		FSHIP	FEMID	SE	AGE	HTW
Pearson's r	CAW	.00	-.10*	-.21*	-.32*	.50*
Effect Size (r <sup>2</sup> )	CAW	--	.01	.04	.10	.25

*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; FEMID = Feminist Identity Development; SE = Self-esteem; HTW = Hostility Toward Women

\* =  $p < .01$

### *Hypothesis 2*

Hypothesis 2 stated that competition among women would be positively correlated with hostility toward women. As hypothesized, a significant positive, moderate correlation was observed between competition among women and hostility toward women, representing a relatively large effect, suggesting that competition among women and hostility increased together (see Table 3).

### *Hypothesis 3*

Hypothesis 3 predicted that White women would evidence higher levels of competition among women than did women of color. Hypothesis 3 was analyzed using a one-way analysis of variance (ANOVA), Tukey post-hoc tests and  $\eta^2$  to estimate effect size. No significant differences were observed between White women and those of other ethnicities, including Asian, Black, Latina, Native American/Pacific Islander/Eskimo/Alutian, and women of other ethnicities (see Table 4). This finding suggested that women of various ethnicities did not differ in their reported experiences of competition among women. Sample means were relatively close in value (see Table 5).

Table 4

*One-Way Analysis of Variance for Effects of Ethnic Group Membership on Competition Among Women Total Score*

Source	df	SS	MS	F
Between Groups	5	545.08	109.02	.27
Within Group	557	225622.83	405.07	
Total	562	226167.91		

*Note.*  $p > .05$

Table 5

*Tukey's HSD Analysis – Sample Size and Mean CAW Scores By Ethnicity*

Ethnic Group	N	Mean
Asian	36	103.83
Black	100	105.23
Latina	79	102.37
Indigenous	1	100.43
White	321	103.83
Other	20	106.10

Cohen (1988) determined that an Eta squared effect size was small if it was between .01 and .06. The Eta squared for this effect was trivial. The results overall suggest that ethnicity was not related to expression of competition among women.

Cohen's D calculations were utilized to determine the effect sizes between the competition among women mean scores for White women and women from ethnic groups other than White. It was observed that none of the ethnic groups' means on competition among women indicated even weak effect sizes, due to a lack of significant differences among ethnicities overall (see Table 6). The findings implied that the particular ethnic group to which sample members belonged had no effect on their self-reported expression of competition among women.

---

Table 6

*Cohen's D Calculations for Effect Sizes for Differences in Means Between White Women and Women of Non-White Ethnicities for Competition Among Women*

---

Group	Cohen's D Effect Size
Asian	0
Black	-.07
Latina	.08
Native American/Pacific Islander/Eskimo/Alutian	.16
Other	-.13
Combined Non-White	.01

---

Hypotheses 4 through 8 were each addressed with partial correlations and the squares of the partial correlations.

*Hypothesis 4*

Hypothesis 4 predicted that hostility toward women would serve as a buffering moderator of the relationship between competition among women and the variables of friendship intimacy and feminist identity development. As predicted, the relationship

between competition among women and friendship intimacy was stronger when hostility toward women was controlled, thus supporting that hostility toward women served as a buffer for this relationship (see Table 7). However, comparing the values of  $r^2$  with and without partialling suggests that the relationship appeared to be influenced little by hostility toward women (see Table 8).

Contrary to what was predicted, the relationship between competition among women and feminist identity development was weaker than when the effect of hostility toward women was controlled, indicating an enhancing rather than a buffering function of hostility toward women (see Table 7).

---

Table 7

*Correlations of Competition Among Women and Both Friendship Intimacy and Feminist Identity Development with Hostility Toward Women Partialled Out*

Control Variable	Dep. Variable	FSHIP	FEMID
None	CAW	.001	-.102
HTW	CAW	.069	-.094

---

*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; FEMID = Feminist Identity Development; HTW = Hostility Toward Women

In addition, the variance in competition among women accounted for by feminist identity development did not evidence a substantial change when hostility toward women was held constant (see Table 8). Therefore, in a practical sense, the relationship between

competition among women and feminist identity development was not strongly impacted by hostility toward women.

Table 8

*Effect Size Comparisons of Relationship Between CAWS and Other Variables of Interest, With HTW as a Partialling Variable*

Control Var.	Dep. Var.	Indep. Var.	Effect Size	Difference in Effect Size
None	CAW	FSHIP	.00	--
HTW	CAW	FSHIP	.005	.005
None	CAW	FEMID	.01	--
HTW	CAW	FEMID	.008	.002

*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; FEMID = Feminist Identity Development; HTW = Hostility Toward Women

Difference in effect size column calculated based on difference in original effect size between CAW and variable of interest and the same relationship with HTW controlled

*Hypothesis 5*

Hypothesis 5 stated that feminist identity development would serve as an enhancing moderator of the relationship between competition among women and both friendship intimacy and self-esteem. The correlation between competition among women and friendship intimacy was slightly stronger when feminist identity development was held constant, which went against the original prediction (see Table 9); however, the

slight difference was trivial (see Table 10). Thus, feminist identity development failed to serve an enhancing function for the relationship. The difference between the variance in competition among women accounted for by friendship intimacy when feminist identity development was held constant was insubstantial compared to the original variance for which it accounted. This finding indicated that feminist identity development did not have an effect on the relationship between competition among women and friendship intimacy.

---

Table 9

*Correlations of Competition Among Women and Both Friendship Intimacy and Self-Esteem with Feminist Identity Development Partialled Out*

---

Control Variable	Dep. Variable	FSHIP	SE
None	CAW	.001	-.212
FEMID	CAW	-.002	-.211

---

*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; SE = Self-Esteem; FEMID = Feminist Identity Development

As for the correlation between competition among women and self-esteem, the correlation was slightly weaker when the effect of feminist identity development was partialled out (see Table 9); this finding upheld the prediction that the correlation would be weaker when the effects of feminist identity development were controlled, and thus indicated that feminist identity development enhanced the relationship between

competition among women and self-esteem. Also, the variance of competition among women accounted for by self-esteem was not substantially different when the effect of feminist identity development was partialled out (see Table 10); thus, the practical significance of the effect of feminist identity development on the relationship between competition among women and self-esteem was trivial.

---

Table 10

*Effect Size Comparisons of Relationship Between CAWS and Other Variables of Interest, With FEMID as a Partialling Variable*

---

Control Var.	Dep. Var.	Indep. Var.	Effect Size	Difference in Effect Size
None	CAW	FSHIP	.00	--
FEMID	CAW	FSHIP	.00	.00
None	CAW	SE	.04	--
FEMID	CAW	SE	.04	.00

---

*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; FEMID = Feminist Identity Development; SE = Self-Esteem; Difference in effect size column calculated based on difference in original effect size between CAW and variable of interest and the same relationship with FEMID controlled.

### *Hypothesis 6*

Hypothesis 6a examined whether self-esteem would serve as a buffering moderator of the relationship between competition among women and hostility toward women. Hypothesis 6b predicted that self-esteem would operate as an enhancing moderator of the relationship between competition among women and friendship intimacy. Neither of the hypothesized relationships was supported when the effect of self-esteem was controlled.

The correlation between competition among women and hostility toward women was weakened when the effect of self-esteem on the relationship was partialled out (see Table 11). This finding was in the opposite direction predicted, so that instead of buffering the relationship between competition among women and hostility toward women, self-esteem actually enhanced the relationship. Additionally, the results revealed that, when self-esteem was held constant, hostility toward women accounted for 2% less of the variance in competition among women than it did when the effects of self-esteem were not considered; this amounted to a small difference in effect sizes (see Table 12). This result indicated that self-esteem had a small impact on the relationship between competition among women and hostility toward women.

The zero-order correlation between competition among women and friendship intimacy was strengthened when self-esteem was held constant (see Table 11). This finding indicated that self-esteem was not an enhancing moderator of the relationship, as predicted, but was instead a buffering moderator of the relationship. Also, the variance in competition among women accounted for by friendship intimacy revealed a trivial

difference when self-esteem was held constant than when self-esteem was not considered (see Table 12). Thus, the practical significance of the buffering function of self-esteem for the relationship between competition among women and friendship intimacy was low.

---

Table 11

*Correlations of Competition Among Women and Both Hostility Toward Women and Friendship Intimacy with Self-Esteem Partialled Out*

---

Control Variable	Dep. Variable	HTW	FSHIP
None	CAW	.502	.001
SE	CAW	.478	.027

---

*Note.* CAW = Competition Among Women; HTW = Hostility Toward Women; FSHIP = Friendship Intimacy; SE = Self-Esteem

Table 12

*Effect Size Comparisons of Relationship Between CAWS and Other Variables of Interest, With SE as a Partialling Variable*

Control Var.	Dep. Var.	Indep. Var.	Effect Size	Difference in Effect Size
None	CAW	HTW	.25	--
SE	CAW	HTW	.23	.02
None	CAW	FSHIP	.00	--
SE	CAW	FSHIP	.00	.00

Note. CAW = Competition Among Women; FSHIP = Friendship Intimacy; SE = Self-Esteem; HTW = Hostility Toward Women

Difference in effect size column calculated based on difference in original effect size between CAW and variable of interest and the same relationship with SE controlled.

*Hypothesis 7*

The predictions of hypothesis 7 included that ethnicity would serve as an enhancing moderator of the relationships between competition among women and the variables of friendship intimacy, feminist identity development, and self-esteem. The zero-order correlation between competition among women and friendship intimacy was slightly stronger when the effect of ethnicity was partialled out of the relationship (see Table 13); however, the difference was trivial. The finding contradicted the prediction that ethnicity would enhance the relationship between competition among women and

friendship intimacy, and instead demonstrated that ethnicity may have served a buffering function for the relationship. The change in variance in competition among women accounted for by friendship intimacy when the effect of ethnicity was held constant was diminutive when compared to its variance when ethnicity was not considered (see Table 14). Thus, ethnicity did not greatly impact the relationship between competition among women and friendship intimacy.

The partial correlation of competition among women and feminist identity development, with ethnicity held constant, was slightly stronger than was the zero-order correlation between competition among women and feminist identity development, although the difference was insignificant (see Tables 13 and 14). This finding failed to support the hypothesis that ethnicity would enhance the relationship, and instead indicated that it might buffer the relationship. The change in variance in competition among women explained by feminist identity development when ethnicity was held constant was trivial compared to the variance accounted for by feminist identity development when ethnicity was not considered. Thus, the practical significance of the effect of ethnicity on the relationship between competition among women and feminist identity development was insubstantial.

The prediction that ethnicity would serve an enhancing function was also not upheld for the relationship between competition among women and self-esteem. The zero-order correlation of the variables was stronger when ethnicity was held constant, indicating that ethnicity possibly buffered the relationship (see Table 13).

The variance in competition among women accounted for by self-esteem was not substantially different when the effect of ethnicity was held constant (see Table 14). In effect, ethnicity influenced the relationship between competition among women and self-esteem a trivial amount.

---

Table 13

*Correlations of Competition Among Women and Friendship Intimacy, Feminist Identity Development, and Self-Esteem, With Ethnicity Partialled Out*

---

Control Variable	Dep. Variable	FSHIP	FEMID	SE
None	CAW	.001	-.102	-.212
ETH	CAW	.003	-.103	-.216

---

*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; FEMID = Feminist Identity Development; SE = Self-Esteem; ETH = Ethnicity

Table 14

*Effect Size Comparisons of Relationship Between CAWS and Other Variables of Interest, With ETH as a Partialling Variable*

Control Var.	Dep. Var.	Indep. Var.	Effect Size	Difference in Effect Size
None	CAW	FSHIP	.00	--
ETH	CAW	FSHIP	.00	.00
None	CAW	FEMID	.01	--
ETH	CAW	FEMID	.01	.00
None	CAW	SE	.05	--
ETH	CAW	SE	.05	.00

*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; FEMID = Feminist Identity Development; HTW = Hostility Toward Women; ETH = Ethnicity

Difference in effect size column calculated based on difference in original effect size between CAW and variable of interest and the same relationship with ETH controlled.

*Hypothesis 8*

Hypothesis 8a predicted that age would enhance the relationship between competition among women and both friendship intimacy and self-esteem, while hypothesis 8b stated that age would serve as a buffering moderator of the relationship between competition among women and hostility toward women. The zero-order correlation between competition among women and friendship intimacy was

strengthened when the effect of age was partialled out (see Table 15). This finding failed to support the prediction that age would serve an enhancing function for the relationship between competition among women and friendship intimacy, and instead suggested that it served a buffering function. Additionally, a diminutive difference existed in the variance of competition among women explained by friendship intimacy when age was accounted for and when it was not (see Table 16). This finding suggests that age had an insignificant impact on the relationship between competition among women and friendship intimacy.

The prediction that age would serve as an enhancing moderator of the relationship between competition among women and self-esteem was upheld. The zero-order correlation between competition among women and self-esteem was weakened when the effect of age was controlled (see Table 15). Therefore, age served an enhancing function for the relationship. However, the difference in the variance in competition among women accounted for by self-esteem was not substantially different when age was considered and when it was not considered (see Table 16). Therefore, the practical significance of the effect of age on the relationship between competition among women and self-esteem was trivial.

Additionally, the prediction was not supported that age would function as a buffering moderator of the relationship between competition among women and hostility toward women. Instead, the zero-order correlation between competition among women and hostility toward women was weakened when the effect of age was partialled out, so that age may have served to enhance the relationship (see Table 15). Also, holding age

constant resulted in a 6% decrease in the variance of competition among women explained by hostility toward women, compared to the variance explained by hostility toward women when the effect of age was not held constant (see Table 16). The 6% decrease was considered to have a small effect size. Thus, the results indicated that age had a small effect by enhancing the relationship between competition among women and hostility toward women.

---

Table 15

*Correlations of Competition Among Women and Friendship Intimacy, Self-Esteem, and Hostility Toward Women, With Age Partialled Out*

---

Control Variable	Dep. Variable	FSHIP	SE	HTW
None	CAW	.001	-.212	.502
AGE	CAW	-.011	-.195	.434

---

*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; SE = Self-Esteem; HTW = Hostility Toward Women

Table 16

*Effect Size Comparisons of Relationship Between CAWS and Other Variables of Interest, With Age as a Partialling Variable*

Control Var.	Dep. Var.	Indep. Var.	Effect Size	Difference in Effect Size
None	CAW	FSHIP	.00	--
AGE	CAW	FSHIP	.00	.00
None	CAW	SE	.04	--
AGE	CAW	SE	.04	.00
None	CAW	HTW	.25	--
AGE	CAW	HTW	.19	.06

*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; HTW = Hostility Toward Women; SE = Self-Esteem

Difference in effect size column calculated based on difference in original effect size between CAW and variable of interest and the same relationship with Age controlled.

## CHAPTER V

### DISCUSSION

#### Summary of Findings

The current study examined the relationship between competition among women and several other variables. Specifically, these variables included friendship intimacy, feminist identity development, self-esteem, hostility toward women, ethnicity, and age. In addition, the study examined whether any of the aforementioned variables served as moderating variables for the relationship between competition among women and any of the other variables.

Results from this study upheld the hypotheses that competition among women would be significantly and negatively correlated with feminist identity, self-esteem, and age; in addition, the results supported the hypothesis that competition among women would be significantly and positively correlated with hostility toward women. However, the prediction that competition among women would be negatively correlated with friendship intimacy was not supported. The results revealed that feminist identity development and self-esteem had a small effect on competition among women, while age had a moderate effect and hostility toward women had a large effect on competition among women.

Contrary to predictions, the study revealed that ethnic group membership did not have a significant impact on participants' scores on competition among women, and that

membership in a specific ethnic group did not substantially moderate the relationship between competition among women and other variables. In addition, the effect of ethnicity on the relationship between competition among women and the variables of friendship intimacy, feminist identity development, and self-esteem were in the opposite direction than predicted, so that ethnicity buffered the relationships.

The findings of the current study were examined for both statistical and practical significance. Although a finding could be statistically significant, effect size did not always demonstrate that it was meaningful. Thus, a variable could buffer a relationship between two other variables, but not necessarily in a way that had practical meaning. Therefore, the following report of the results included denoting both when the findings either did or did not achieve statistical significance, and when they either did or did not represent practical significance.

The hypothesis that hostility toward women would buffer the relationship between friendship intimacy and competition among women was supported. The prediction that hostility toward women would buffer the relationship between competition among women and feminist identity development was not supported. However, for both relationships, hostility toward women was shown to have a slight effect.

Additional findings related to the study's hypotheses were that, as predicted, feminist identity development served a slight enhancing function between competition among women and self-esteem; however, it did not enhance the relationship between competition among women and friendship intimacy. However, feminist identity

development did not significantly contribute to the relationship between competition among women and either friendship intimacy or self-esteem. Likewise, the results demonstrated that self-esteem did not substantially moderate the relationship between competition among women and friendship intimacy; the direction of the moderation was also in the opposite direction than predicted. Also, self-esteem moderated the relationship between hostility toward women and competition among women in the opposite direction than predicted, so that it provided a small effect in enhancing the relationship.

Finally, the hypotheses regarding the moderating function of age were not supported. The results indicated that age did not serve an enhancing function as predicted for the relationship between competition among women and friendship intimacy and self-esteem, but instead was the opposite direction than predicted. Additionally, the effect of age on the aforementioned two relationships was small. Another finding related to age was that it did not buffer the relationship between competition among women and hostility toward women, but instead it had a small enhancing effect on the relationship.

#### Integration of Findings With the Literature

##### *Female Friendship Intimacy and Competition Among Women*

Women's intimate friendships with other women has been posited to be significant in their lives (Crothers et al., 2005) and to provide sharing, empowerment, and openness (Knickmeyer et al., 2002; Schultz, 1991). However, women's experience of competition among women has been demonstrated to negatively impact friendship intimacy (Fehr, 1996; Litwin & Hallstein, 2007; Tracy, 1991). Contrary to the previous

literature, in the current study competition among women was found to be unrelated to friendship intimacy.

One factor that may have accounted for the lack of a significant correlation between female friendship intimacy and competition among women may have been measurement error. The scales used to measure friendship intimacy (Miller Social Intimacy Scale; Miller & Lefcourt, 1982) and competition among women (Competition Among Women Scale; Harris-McDonald & Mollen, 2006) may not have been measuring the two constructs accurately, which may have accounted for the lack of a significant relationship between the two variables. Further limitations regarding the scales used in the current study have been outlined in the limitations section below.

Additionally, as part of the measurement of friendship intimacy, participants were asked to answer the items on the MSIS while considering their closest female friend. The results may have been impacted because participants were asked only to think of their closest female friend, which may or may not have included a family member such as a sister or cousin. The inclusion of a female friend who was also a family member may have impacted the findings, in that a non-familial friendship may have been distinct from a friendship with a woman who was not otherwise related; for example, a family relationship may not have been as easily dissolvable as a relationship in which two people chose to be connected, so that competition within the friendship may have been more threatening and thus less acknowledged or allowed.

The fact that women's friendships have been demonstrated to be significant relationships in their lives (Crothers et al., 2005) has augmented the idea that women may

not acknowledge competition in their friendships, even if it does exist. If women's relationships with their friends were of vital importance in their lives, they may not have wanted to risk threatening their friendships with competition, as it could have created discord within friendships and loss of important relationships. Additionally, the friendships women considered when completing the MSIS may have been those friendships in which they had not yet experienced conflict or competition, since it has been theorized that when women experience conflict in their friendships, the friendship may be more likely to end (Weinstock & Bond, 2000).

While previous research has demonstrated that women have engaged in competitive behaviors with their close same-sex friends, including competition related to financial and social status and beauty (Gali-Alfonso, 2005), the lack of correlation between competition among women and friendship intimacy in the current study seemed to complement the idea that women may have differentiated their friends from women with whom they competed. Also, women have been shown to be similar to their friends (Fehr, 1996, 2000), which may mean that they may choose friends with whom they do not compete.

Another possible factor contributing to a lack of relationship between competition and friendship may be the tendency for women to adopt an idealized view of their close female friendships (Taylor et al., 2007), so that women may have minimized their reports of conflict or competition within their closest friendships. The results also complement the theory that women have been socialized to be unselfish and kind (Gali-Alfonso,

2005), so that they may have been less likely to report, or may have been uncomfortable admitting to, negative competition in their intimate female friendships.

### *Hostility Toward Women and Competition Among Women*

Previous researchers have theorized that competition among women is part of the construct of hostility toward women (Cowan et al., 1998; Cowan & Ullman, 2006). Thus, the moderate, positive correlation found in the current study between the two constructs, as well as the large amount of variance in competition among women found to be accounted for by hostility toward women, may actually have been due to the fact that competition among women was subsumed under the construct hostility toward women, and thus that they were part of the same construct. However, competition among women has been demonstrated by other researchers to be conceptually different than hostility toward women (Frederick, 1989). It is also possible that the two constructs are both separate and complementary.

Furthermore, hostility toward women and competition among women have been theorized to be complementary constructs and to include some definitional similarities, including the belief that women are scheming, deceitful (Lonsway & Fitzgerald, 1995), and indirectly aggressive (Harris-McDonald & Mollen, 2006). The current results were consistent with these theories and provided further support that that competition among women and hostility toward women may be related to similar variables, such as denigrating the social attractiveness of another woman (Loya et al., 2006), emotional dependence on men (Cowan et al., 1998), and adherence to Western beauty norms (Forbes et al., 2007). Both constructs have been shown to involve negative attitudes

toward women (Cowan et al.; Harris-McDonald & Mollen), so that when women have denigrated other women regarding social attractiveness, they may have been attempting to create distance between other women and themselves as a function of not trusting or liking other women. In addition, women's emotional dependence on men may have engendered dislike of, or competition with, other women, whom women thought could not provide the emotional support that men could supply. Also, if women were prone to uphold Western beauty ideals, they may have been more likely to be hostile toward or compete with other women who closely matched Western beauty standards.

*Hostility toward women as a moderator variable.* Low levels of hostility toward women have been postulated to be associated with more intimate relationships with a best female friend (Cowan & Ullman, 2006). The current study corroborated these findings by demonstrating that hostility toward women buffered the relationship between competition among women and friendship intimacy. However, the impact of hostility toward women on the relationship was not found to be of practical importance.

Little research has examined the relationship between these variables, and none has examined their relationships among each of the variables. Therefore, the finding that hostility toward women is an insignificant moderator has informed the literature in this area. The lack of meaningful significance may be due to two factors, including limitations in measurement by the scales used to assess the construct and the fact that hostility toward women and competition among women may be interrelated, rather than distinct, constructs (Cowan et al., 1998; Cowan & Ullman, 2006). Therefore, the relationship between competition among women and hostility toward women may have

been a reason why hostility toward women did not exhibit an influence on the relationship of competition among women and friendship intimacy.

Hostility toward women has also been theorized to be related to feminist identity development (Cowan & Ullman, 2006). The current study did not support the prediction that hostility toward women would buffer the relationship between competition among women and feminist identity development. Instead, hostility toward women was found to enhance the relationship between the two constructs, although this finding did not reveal practical significance for the difference in the relationship when hostility toward women was or was not considered.

These findings supported previous research indicating that women's identification as feminists was found to be unrelated to hostility toward women (Cowan et al., 1998); this lack of correspondence may have had an impact on the effect of hostility toward women on the relationship between competition among women and feminist identity development. Thus, hostility toward women may have weakened the relationship when it was considered, and may have contributed to the lack of practical significance of the enhancing relationship. The lack of meaningful findings regarding the role of hostility toward women in the relationship between the other two variables may also have been due to measurement error.

#### *Feminist Identity Development and Competition Among Women*

The current study supported previous research which suggested that feminist identity development was negatively related to competition among women. Earlier research had indirectly hypothesized that women in later stages of feminist identity

development were less likely to endorse the importance of physical appearance (Chesler, 2001; Mahalik et al., 2005), which was included in the construct of competition among women (Harris-McDonald & Mollen, 2006). Additionally, the current finding that competition among women and feminist identity development were unrelated supported the previous finding that women with greater feminist identity development were less emotionally dependent on men (Henderson & Cunningham, 1993), and thus may have less reason to compete with other women for partnerships with men.

*Feminist identity development as a moderator variable.* Previously, it was postulated that feminist identity development was related to friendship intimacy (Acker et al., 1981; Witte & Sherman, 2002); however, the prediction that feminist identity development would enhance the relationship between competition among women and friendship intimacy was not supported in the present study. Instead, the current study found that feminist identity development served to trivially buffer the relationship between the other two variables, so that the difference of feminist identity development on the relationship between competition among women and friendship intimacy was negligible.

The findings may have been due to the possibility that the variables of friendship intimacy and feminist identity overlapped somewhat. Research has found that women's friendships include a balance of power and empowerment (Knickmeyer et al., 2002), both of which have also been shown to characterize feminism (Offen, 1988). This lack of significance may also be due to measurement error in the scales used to assess the constructs.

An additional relationship that has been hypothesized in the literature is that feminist identity development and self-esteem were unrelated (Fischer & Good, 1994; Usher & Fels, 1985). The current results demonstrated that feminist identity development enhanced the relationship between competition among women and self-esteem, thus lending support to the previous findings. However, the practical significance of the finding was inconsequential, which indicated that feminist identity development had little to no impact on the relationship between the other two variables; however, the results may also have been due to measurement error by the scales used to evaluate the constructs. The findings may also corroborate research that has found an indirect relationship (Hurt et al., 2007) or no relationship (Taylor, 1994) between feminist identity and self-esteem, which may have impacted the role that feminist identity development played in the relationship of self-esteem and competition among women.

#### *Self-Esteem and Competition Among Women*

Previous research has suggested that competition among women and self-esteem were negatively related (Johannessen, 1992; Matsumoto, 1987; Tannenbaum, 2002; Tracy, 1991), as low self-esteem may have created feelings of inadequacy in women, which may have caused them to compete negatively with other women (McMurtry, 1994). Additional prior research found that lower levels of self-esteem were related to components of competition among women, such as negative social comparison (Buunk & Dijkstra, 2004), relationship contingency (Sanchez & Kwang, 2007), and envy (Cohen, 1986; Valentis & Devane, 1994). The results of the current study upheld previous findings that competition among women was negatively related to self-esteem, although

the relationship was weak. Thus, women who have suffered from feeling inadequate or who have compared themselves to other women in order to feel better about themselves may have been more likely to engage in negative competition among women.

*Self-esteem as a moderator variable.* Self-esteem has been postulated to be related to friendship intimacy (Thomas & Daubman, 2001; Voss et al., 1999). The current results demonstrated that, when self-esteem was held constant, the relationship between competition among women and friendship intimacy was strengthened, which contradicted the hypothesis that self-esteem would serve as an enhancing moderator variable. Therefore, self-esteem was shown to shield the effect of friendship intimacy on competition among women; however, the buffering function of self-esteem on the relationship of the two other variables was found to be trivial.

These results corresponded with a previous finding that friendship quality was not correlated with self-esteem (Thomas & Daubman, 2001), so that when the effect of self-esteem on the relationship between the other two variables was considered, it may have been more likely to weaken the relationship and less likely to significantly impact the relationship. Another reason that self-esteem did not significantly enhance the relationship between friendship intimacy and competition among women may have involved inaccuracy in measuring the constructs, which may have been a limitation of the instruments used in the current study.

Self-esteem has also been found to be related to hostility toward women, such that women with lower self-esteem were found to have increased hostility toward women (Cowan et al., 1998). The results of the present study lent support to these findings;

however, the results indicated that self-esteem acted as a moderator variable by enhancing rather than buffering the relationship between competition among women and hostility toward women. In addition, the results indicated a small effect size for self-esteem on the relationship, indicating that hostility toward women accounted for less variance in competition among women when self-esteem was held constant.

The current results may have been due to the fact that hostility toward women and self-esteem truly are related, as has been hypothesized and found in previous research (Cowan et al., 1998). Therefore, self-esteem may have impacted the relationship between competition among women and hostility toward women by strengthening the relationship instead of weakening it. Accordingly, self-esteem may be an important variable to consider when thinking about competition among women or hostility toward women and their relationship; this assertion has fit with previous literature which has intimated that self-esteem may have played a role in competition among women (Eichenbaum & Orbach, 1988; Tannenbaum, 2002) and in hostility toward women (Cowan et al., 1998; Cowan & Ullman, 2006).

### *Ethnicity and Competition Among Women*

White women have been theorized to focus on their individual promotion in society (Brown, 2003) and to use relational aggression against other women (Crothers et al., 2005), whereas U.S. women of color have been postulated to focus on collective values (Fuligni et al., 1999; Negy, 1993; Watson & Protinsky, 1988) and have communities that may have supported resistance to dominant values (Brown, 2003; Chesler, 2001; Crothers et al.). Therefore, women of color have been theorized to exhibit

less competition among women than White women. However, the results of the current study found that White women and women of color, including Asian, Black, Latina, Native American/Pacific Islander/Eskimo/Alutian, and women of other ethnicities, did not differ in their reported levels of competition among women. Thus, membership in a particular ethnic group appeared to play no role in levels of competition among women.

This finding was consistent with previous research which found that levels of competition among women did not differ based on ethnicity (Harris-McDonald, 2006). This result could have been due to the fact that women of other ethnicities competed among women to the same degree as White women, as has been posited previously for different ethnic groups, such as Black (Brown, 2003; Poran, 2006; Robinson & Howard-Hamilton, 1994) and Latina (Taylor et al., 2007) women. Therefore, perhaps U.S. women of color may have reacted to the same pressures exerted by the dominant society on White women, such as comparing themselves to other women and trying to grasp some of men's power, therefore competing for relationships with men (Brown).

However, the results that the level of competition among women did not differ among ethnic groups could also have been due to the fact that the majority of the women in the sample were currently attending college, where competition among women for grades and social status may have been more likely to occur. Additionally, the majority of women recruited for the current study were younger, and age was found to be negatively related to competition among women, so that women's younger ages may have impacted results regarding their ethnicities. Additionally, the instrument that measured competition among women (CAWS; Harris-McDonald & Mollen, 2006) in the current study may not

have accurately measured the construct due to limitations of the scale, rather than to a lack of relationship between competition among women and ethnicity.

*Ethnicity as a moderator variable.* Ethnicity was found in the current study to have a negligible enhancing effect on the relationship between friendship intimacy and competition among women. Also, this result contradicted the prediction that ethnicity would serve a buffering function on the relationship between the other two variables. The findings did not correspond to previous research that indicated that the friendships of Asian (Bruneau & Ishii, 1988; Goodwin & Lee, 1994) and Black (Hammer & Gudykunst, 1987) women may have differed from the friendships of White and Latina women, which had implied that ethnicity may have moderated the relationship between friendship intimacy and other variables such as competition among women.

It was noted that the current study assumed that women of various ethnic groups tended to select friends similar to them in ethnicity, as postulated by previous research (Fehr, 1996, 2000; Furman, 1985; Hartup, 1983). However, women in the present study who answered the friendship intimacy instrument (MSIS; Miller & Lefcourt, 1982) may have considered a woman from any ethnicity as their close friend, and this choice may have influenced their results by impacting how strongly the variable of ethnicity influenced friendship intimacy. Also, the present findings may have been impacted by measurement error related to the instruments used to measure the constructs of competition among women and friendship intimacy.

Ethnicity was found to have a trivial buffering effect on the relationship between feminist identity development and competition among women. This result failed to

support the prediction that ethnicity would serve an enhancing function on the relationship between the other two variables. These findings were not in keeping with previous research that suggested that women of color did not identify with principles of feminist identity development (Pearson, 2003) or were more concerned with issues related to their ethnic identity development (Martin & Hall, 1992). The current study's findings corresponded with previous research that found that feminist identity development did not differ for women of various ethnicities (Carpenter & Johnson, 2001; Yakushko, 2007). Therefore, ethnicity may have had little to no impact on the relationship between feminist identity development and competition among women, so that it would not have enhanced the relationship as predicted.

Also, although women of color have been theorized to adhere more to womanist than feminist models of development (Boisnier, 2003; Fischer et al., 2000; Ossana et al., 1992), they may actually have identified with both models, thus impacting the finding that ethnicity did not meaningfully moderate the relationship between competition among women and feminist identity development. Another reason for the present study's findings might have involved the relatively young sample. Younger women have been postulated to identify more with feminist viewpoints than older women (Myaskovsky & Wittig, 1997), and in the current study this may have impacted the role of ethnicity regarding feminist identity development and competition among women. Thus, the young sample may have identified with feminist beliefs, and thus had higher feminist identity development, regardless of their ethnicity. Additionally, it has previously been noted that the expression of competition among women in the current study was not related to

ethnicity. This finding may also have influenced the impact of on the relationship between feminist identity development and competition among women. Measurement error in the scales used to measure the constructs in question may also have impacted the present findings.

Finally, ethnicity was found in the current study to have a negligible buffering effect on the relationship between competition among women and self-esteem, which did not correspond with the hypothesis that ethnicity would enhance the relationship. The current findings contradicted research that demonstrated that ethnicity may have played a role in the level of individuals' self-esteem, such that Blacks had higher self-esteem than Whites (Hoelter, 1983; Tashakkori & Thompson, 1991; Twenge & Crocker, 2002; Yang & Blodgett, 2000) and Whites had higher self-esteem than those from other ethnicities (Twenge & Crocker; Zeigler-Hill, 2007).

The present results may have been due to the fact that, although women from ethnic minority groups may have internalized the dominant culture's negative view of them (Jost, 1995; Tajfel & Turner, 1979), White women may also have been impacted by the dominant male societal view of women as inferior (Brown, 2003; Yamato, 1990); thus, given that ethnic minority groups may have instilled resistance to dominant culture norms (Brown, 2003), the groups' self-esteem levels may have been similar. Also, although individuals from collectivistic cultures were theorized to have lower self-esteem than those from individualistic cultures, due to an increased focus on maintaining the esteem of the group as opposed to self-esteem (Twenge & Crocker, 2002), the present study consisted of women currently living in the predominantly individualistic culture of

the U.S. Therefore, perhaps the sample identified with individualistic values more than collectivistic values, regardless of the ethnic group to which they belonged. Additionally, the scales that measured the aforementioned constructs may have been inaccurate, which may also have impacted the current results.

#### *Age and Competition Among Women*

The current finding that age was negatively correlated with competition among women was consistent with previous research which demonstrated that younger women exhibited more competition among women than older women (Harris-McDonald & Mollen, 2006; Tannenbaum, 2002). The current results indicated that the level of competition among women decreased as women's ages increased. The results were also congruent with findings that younger women exhibited more competition among women (Harris-McDonald & Mollen), including that younger women were more competitive regarding physical attractiveness (Dijkstra & Buunk, 2002; Johannessen, 1992; Webster & Tiggemann, 2003), relationships with men (Chesler, 2001; Henderson & Cunningham, 1993; Ingo et al., 2007), and occupational advancement (Tannenbaum).

On the other hand, the results were not consistent with research that postulated that older women would be more competitive than younger women due to their attempts to compete with younger women over youth, beauty, and men (Barash, 2006; Cashdan, 1998; Travis et al., 2000). It was noted that the current sample was predominantly young, and the findings may have been impacted by this factor; for example, perhaps the sample of older women in the study may have been less likely to admit competition among women, so that the results may have been skewed.

*Age as a moderator variable.* The present findings that age did not buffer, but instead negligibly enhanced, the relationship between competition among women and friendship intimacy, contradicted the study's hypothesis. The current results were inconsistent with previous theories that held that age may have impacted friendship intimacy, as younger women may have had obligations such as childcare that may take precedence in their lives (Fischer & Oliner, 1983), whereas older women may have had more time for and placed greater value on female friends (Gouldner & Strong, 1987; Wettstein, 1998). However, the results supported previous research that indicated that younger women valued close friendships (Zarbatany et al., 2004) and sought out friends who were similar to them (Bliss, 2000).

Factors that may have led to the current findings included that, due to the fact that female friendship can be integral relationships in women's lives (Crothers et al., 2005; Zarbatany et al., 2004), both older and younger women may have had strong and close female friends, so that age may not have meaningfully impacted the relationship between competition among women and friendship intimacy. Additionally, it was previously noted that in the current study, friendship intimacy was found to be unrelated to competition among women; therefore, this finding may have impacted the fact that age was not found to influence the relationship between the two variables. The instruments used to measure the constructs also may have had limitations, such as inaccuracy of measurement, that may have been responsible for the present results.

The present findings demonstrated that age had a small effect by enhancing the relationship between competition among women and hostility toward women; this

showed that when age was removed, hostility toward women accounted for a decreased amount of variance in competition among women than when age was not considered. However, this finding contradicted the hypothesis that age would buffer the relationship. An explanation for the enhancing effect of age may have been due to the fact that younger women have been posited to have exhibited increased hostility toward women compared to older women (Cowan, 2000; Cowan et al., 1998), so that the relationship between competition among women and hostility toward women may have been weaker when age was removed, rather than stronger. The finding that age had a small impact on the relationship between the other two variables was consistent with previous research that found that younger women exhibited increased hostility toward women compared to older women (Cowan; Cowan et al.) and that hostility toward women was related to competition among women, as demonstrated in the current study and posited by other studies (Harris-McDonald & Mollen, 2006; Loya et al., 2006).

Finally, the current study found that age served a trivial enhancing function for the relationship between competition among women and self-esteem. This result was consistent with literature that found that older women had higher self-esteem than younger women, due to their disinterest in social comparison and increased body satisfaction (Webster & Tiggemann, 2003). The finding also corresponded with younger women's posited succumbing to the Western ideal of quiet girls without symbolic voices (Brown & Gilligan, 1992). However, a reason that age may not have meaningfully buffered the relationship between the two variables may have been due to the fact that research has indicated that younger women may have higher self-esteem than older

women due to Western society's valuation of youth and beauty (McMullin & Cairney, 2004). Given that Western society has encouraged women to be nice and kind (Brown & Gilligan, 1992), possibly at the expense of speaking up for themselves, it may have been true that women of all ages suffered from low self-esteem due to being silenced; this explanation offers a reason for why age did not significantly impact the relationship between competition among women and self-esteem. Also, measurement error of the instruments used in the current study to assess the constructs may also have had a role in the present findings.

#### Implications for Theory, Research, Practice, and Training

##### *Theoretical Implications*

The current findings have the potential to impact theoretical development in the study of competition among women, including its relationship with other variables, such as friendship intimacy, hostility toward women, feminist identity development, self-esteem, ethnicity, and age. Because the present study was exploratory in nature, it has provided preliminary support and extension to some theories, while it has not upheld others.

In general, it has been theorized that negative competition among women may have impeded women's acquisition of power in their lives and may have inhibited women's full potential (Tannebaum, 2002). The current study's findings, which indicated that increased competition among women was associated with a decrease in self-esteem and feminist identity development, have extended the theory that women's lives may have been detrimentally impacted by their experience of competition among women.

Thus, it may be important to incorporate ideas linked to variables such as self-esteem and

feminist identity development in future theories of competition among women. It has also been posited that people have upheld stereotypes of women as conniving and closed-minded (Tannenbaum), so that women have not been assumed to work together or closely relate to each other (Keller & Moglen, 1987). The fact that competition among women and hostility toward women were found to increase together has furthered the theory that some women may demonstrate the stereotype that women cannot work well together, thus lending support to the notion that women may be unkind to other women and may blame other women for problems. Therefore, the present results have enhanced theories of competition among women by demonstrating that it may be important to develop concepts related to hostility toward women and to think about how the two constructs may interact or relate to one another.

Conjectures that women's friendship intimacy suffered with women's increased levels of competition among women were not extended based on the results of the present study, an idea that future theorists may need to heed. While competition in women's same-sex friendships has been assumed to be harmful to women's friendships (Tracy, 1991), the current study indicated that women's levels of competition among women had little impact on women's friendship intimacy with their closest female friend. The results supported the idea that women in intimate friendships may have been less competitive overall with their friends (Merten, 2004).

The current study's findings supported the supposition that hostility toward women and competition among women were complementary constructs (Cowan et al., 1998; Forbes et al., 2007; Harris-McDonald & Mollent, 2006; Loya et al., 2006). This

premise should be considered in future theories regarding the two constructs. However, theories positing that hostility toward women may have been a protective factor regarding the relationship of competition among women to other variables (Cowan et al., 1998; Cowan & Ullman, 2006) were not supported in the current investigation. Thus, theories suggesting that hostility toward women may impact the relationship of competition among women with other variables may need to be reconsidered.

Theories related to feminist identity development and its relation to competition among women have suggested that women who had greater levels of feminist identity development may not have been likely to compete negatively with other women by various means (Henderson & Cunningham, 1993; Mahalik et al., 2005; Yakushko, 2007). The current results have strengthened this theory by suggesting that increased levels of feminist identity development may have been associated with lower levels of competition among women, which may be important to note in speculations regarding the role of competition among women in women's lives. However, theories implicating feminist identity development as a protective factor in the relationship of competition among women to other variables (Fischer & Good, 1994; Knickmeyer et al., 2002) were not supported. Therefore, the theories including the role of feminist identity development in the relationship between competition among women and other variables may need to be further examined or modified.

Self-esteem was another construct that was presumed to be implicated in the expression of competition among women (Barash, 2006; Brown & Gilligan, 1992; Buunk & Dijkstra, 2004; Cowan & Ullman, 2006). The present results have supported the theory

that increased levels of competition among women may be linked to decreased levels of self-esteem in women. This theory has also been extended, as the present findings contradicted previous results which suggested that women did not attribute negative characteristics to other women in order to increase their sense of self-esteem (Clayton & Tramifow, 2007). In addition, the present results strengthened theories suggesting that self-esteem might serve as a moderator of the relationship between competition among women and hostility toward women. Because the results indicated that higher levels of hostility toward women and competition among women may have been related to lower self-esteem (Cowan & Ullman, 2006; Loya et al., 2006), theories addressing the relationship among the three constructs were bolstered.

Despite the present investigation's support of other theories as described above, conjectures regarding the role of ethnicity in the expression of competition among women were not supported. Although ethnicity has been postulated to impact competition among women (Brown, 2003; Chesler, 2001; Crothers et al., 2005; Johannessen, 1992; Pearson, 2003), it was found to have no effect in the current study. However, theories suggesting that some women of color's expression of competition among women may have been no different from White women's (Brown, 2003; Muse, 1987; Pearson, 2003; Poran, 2006; Robinson & Howard-Hamilton, 1994) were supported. Consequently, theories regarding differences in competition among women based on ethnicity may need further refinement and elucidation. In regard to theories suggesting that ethnicity served any protective function as a moderator variable, these were not reinforced either.

Therefore, speculations that ethnicity may impact competition among women or the

relationship between other variables and competition among women may need to be reconsidered or clarified.

Finally, theories postulating that younger women may have demonstrated higher levels of competition among women (Harris-McDonald & Mollen, 2006; Tannenbaum, 2002) were upheld according to the current findings. This support may have given credibility to speculations that younger women may be more competitive than older women due to a focus on heterosexual relationships with men (Henderson & Cunningham, 1993), youth, and beauty (Tannebaum). Additionally, the present results supported the idea that age may have served as a moderator variable in the relationship between competition among women and hostility toward women (Cowan, 2000; Cowan et al., 1998). This finding has added additional complexity to theories surrounding hostility toward women and competition among women.

The findings regarding ethnicity and age supported that there were no differences in levels of competition among women for different ethnicities, and that younger women were more likely to have higher levels of competition among women than were older women. Although the current study utilized a feminist framework, it was noted that these findings were consistent with an evolutionary explanation of competition among women. Evolutionary theory holds that women compete primarily to produce offspring (Campbell, 1999), so that older women who were past their childbearing years may be less likely to compete with other women for mates with whom to have children. In addition, evolutionary theory holds that competition among women for mates is a species-wide phenomenon (Ingo et al., 2007), which implies that competition among

women levels would not vary among women of different ethnicities; women of all ethnicities would compete in order to obtain a mate with whom to have offspring. Thus, the findings related to competition among women and both age and ethnicity in the current study lent support to an evolutionary explanation of competition among women.

Although the current study examined negative competition among women, this does not mean that women do not compete in positive ways or that competition could not be a positive experience for women. Women's competitive sports teams, for example, may provide avenues for women to develop skills in leadership and teamwork, and to build their self-esteem through aiming for and achieving team goals. Likewise, women may compete in interpersonal realms, such as for job promotions, in a positive manner by offering support and guidance to their fellow competitors (Eichenbaum & Orbach, 1988). Furthermore, women who compete with other women in order to be their best at a given task have reported positive competition experiences with other women (Johannessen, 1992). Matsumoto (1987) also held that, notably when women evidenced higher self-esteem, they were able to compete with other women more positively, such as by working to support their fellow competitors while striving to be their personal best. Thus, not all competition among women is negative.

### *Research Implications*

The current findings have advanced general research aimed at developing more comprehensive models of competition among women (Cashdan, 1998; Harris-McDonald & Mollen, 2006); furthermore, the results have offered insight into the role of several variables that impacted competition among women, including feminist identity

development, self-esteem, hostility toward women, and age. Thus, the results have indicated that hostility toward women may play a complementary role to competition among women, while the experience of competition may decrease as feminist identity development, self-esteem, and age increase. Additionally, self-esteem may play a small but important role in strengthening the relationship between competition and hostility toward women; likewise, age may serve an important function by strengthening the relationship between competition among women and hostility toward women. Thus, it may be important to consider these relationships and moderators in future research on competition among women.

Although the inclusion of these variables has been shown to be informative, additional research is necessary to explore and explain the complexity of competition among women. For example, given that the Competition Among Women Scale (CAWS; Harris-McDonald & Mollen, 2006) has been shown to have limitations in item content and in validity, it may be that other variables could encapsulate competition among women more completely and accurately. Therefore, research stressing other components of competition among women, such as envy (Dimen, 1994; Eichenbaum & Orbach, 1988) or gossip (Bjorkqvist et al., 1994; Cohen, 1986) may provide further explanation about the role of competition among women in women's lives. In addition, further scale development and refinement of the CAWS would be beneficial.

The incorporation of multiple constructs in the current study has been an integral advance in the study of competition among women, but replication is necessary with these constructs. Due to limitations with some of the scales used in the study, it would be

important to attempt to duplicate the present findings in order to determine if any confounding effects existed in the current study that may have impacted the results. The current study also held to certain definitions of constructs, such as that feminist identity development included women's identification with feminism or with feminist ideals (Fischer et al., 2000). However, feminism has been shown to be comprised of many varied concepts (Yakushko, 2007), so that perhaps additional research might consider alternative operationalizations of the constructs used in this study. Also, women may attribute particular meaning to their ethnicity based on their level of acculturation or their racial identity (Cokley, 2005); therefore, a more comprehensive assessment of ethnicity may need to be used in future research.

Previous studies of competition among women (Cashdan, 1998; Harris-McDonald & Mollen, 2006; Joseph, 1985) have proposed that it is a complex construct. Therefore, varied processes and methods may be required in order to depict the full range of competition among women. Critical supplements to the current findings include different methodology and other appropriate variables.

Regarding improved methodology, various means of data collection may be helpful, including interviews and case studies. Qualitative methods may be beneficial, as they have typically yielded rich forms of data by exploring participants' subjective meanings from words and text (Hill et al., 2005). Longitudinal data might assist in further elucidating the relationship between competition among women and age, as well as take into account differences over time in variables such as feminist identity development and self-esteem. In addition, research incorporating measures that assess for others' views of

participants' expression of competition among women, rather than relying on self-report measures that reflect one perspective, may also be valuable.

The inclusion of other constructs would be an important step forward in the research area of competition among women. One variable that might be included in future research includes sexual orientation. The current study precluded women of sexual orientations other than heterosexual due to their purported differences in attraction (Pogrebin, 1987; Siever, 1994) and appearance norms, (Myers et al., 1998) for example. However, their exclusion does not mean that women who are not heterosexual have not competed among each other. Researchers are encouraged to include women who are lesbian, bisexual, asexual, and of other sexual orientations into explorations of competition among women in order to gain a broader picture of the various means by which women compete among each other.

Another variable that might be helpful to include in future research endeavors of competition among women includes social class. The U.S. is comprised of multiple social classes, so that women from various social classes likely experience their worlds differently, and thus may demonstrate varied expression of competition among women. Perhaps women from lower social classes must compete with other women for a smaller pool of resources, and perhaps women from higher social classes compete with other women for status or beauty. The study of the relationship of social class with competition among women may provide valuable information that could expand the field of study.

In addition, the inclusion of a wider range of women in forthcoming investigations may also serve to broaden the study area of competition among women.

While the current study examined the relationship between competition among women and ethnicity, and preliminary research has been conducted regarding this association (Harris-McDonald & Mollen, 2006), it may be important to study groups not necessarily included in these studies, such as specific subgroups of Latinas or Asian women. Another useful addition might be to consider how competition among women may manifest in specific diverse groups, since each group's distinctive history may impact the expression of competition among women. Furthermore, each group's unique history of oppression, or multiple oppressions, may have influenced their level of competition among women. Thus, more research is needed to elucidate the complex and integral pieces of competition among women.

### *Practice Implications*

Greater understanding of the construct of competition among women has the potential to influence applied psychology, including counseling, psychoeducational interventions, and advocacy. Theorists and researchers have promoted the importance of using knowledge about competition among women in order to more fully examine and to better women's relationships with one another (Cashdan, 1998; Eichenbaum & Orbach, 1988; Harris-McDonald & Mollen, 2006; Tannenbaum, 2002). Thus, the information gleaned from the current study may be used to further understand women's relationships with each other and to help those who work with or advocate for women to comprehend the issues that competition among women may entail.

Information regarding competition among women may be able to inform mental health professionals' work with women in counseling. Theorists have proposed that

competition among women contributes to problems in women's lives, including difficulties in relationships with other women, work, school, and motherhood (Eichenbaum & Orbach, 1988; Keller & Moglen, 1987). Thus, the knowledge that competition among women is impacted by feminist identity development, self-esteem, age, and hostility toward women may help clinicians to tailor specific interventions for female clients. For example, for women who have demonstrated increased competition among women, clinicians should be attuned to levels of self-esteem, as lower self-esteem was associated with higher levels of competition among women in the present study. It might also behoove clinicians to attend to intersections between both self-esteem and age and the relationship between competition among women and hostility toward women. Consequently, the information the current investigation revealed may contribute to a broader assessment of what might be occurring in women's lives.

In addition, mental health clinicians may also want to be aware of how age might impact the expression of competition among women, as the present study indicated that younger women may be more likely to exhibit higher levels of competition among women than older women. Thus, clinicians working with traditional college-aged populations may encounter issues of competition among women to a greater degree than clinicians in other settings. Clinicians could use the knowledge gained from this study to intervene in helping women have healthier relationships with other women in their lives. In addition, the findings of the current study have implications for the Guidelines for Psychological Practice with Girls and Women (American Psychological Association, 2007), given that competition among women and related variables may impact women's

mental health functioning. Specifically, the present findings may extend practice with girls and women in terms of encouraging mental health practitioners to aid women in becoming empowered to challenge negative competition among women by acknowledging it and addressing issues such as low self-esteem that may impact women's levels of competition.

Just as therapy interventions may be customized in terms of variables related to competition among women, so too can psychoeducational interventions. Particularly, outreach targeting younger women's relationships with other women may be effective in reducing relational distress for young women, which may have a positive impact on both psychological functioning and movement toward more satisfying relationships with other women. These psychoeducational programs may be helpful by addressing the intersection of competition among women with variables such as self-esteem, age, and hostility toward women, and the theorized damaging effects of competition among women (Briles, 1987; Gali-Alfonso, 2005; Johannessen, 1992). In a practical sense, providing women with tools may increase their ability to function in relationships with other women. For example, gossip has been found to be harmful to relationships between girls as well as women (Fillion, 1996; Green et al, 2006; Owens et al., 2000). Therefore discussions, workshops, and outreach presentations that help women learn to respond to and deflect gossip may be beneficial in promoting healthy relationships between women.

An additional applied area in which knowledge from the current study may be useful is in the area of advocacy. Because women's expression of competition among women can be damaging to their relationships, others might tend to devalue women's

relationships (Taylor et al., 2007) and to presume all women are devious (Tannebaum, 2002) so that women's issues are not given the attention they deserve. Thus, it is imperative that women who promote the tenets of feminism be aware that competition among women exists and that it may serve to discredit the women's movement, thus preventing gains for women at multiple levels of society.

It might also be helpful for those who advocate for women's issues to be aware of the present results that competition among women increased as hostility toward women increased. It is noteworthy that hostile attitudes toward women may contribute to competition among women; this may in part lead to increased understanding of why some women do not identify with feminist principles (Myakovsky & Wittig, 1997) or do not support the aims of the feminist movement. In better understanding the complex dynamics of competition among women, as well as its associated variables, women's rights advocates may counteract any negative meanings associated with working with other women. Open discussions in feminist communities of competition among women and related variables, as investigated in the current study, may lead to greater dialogue regarding solutions for competition within women's relationships.

### *Training Implications*

The findings of the current study could have an impact on the training of mental health professionals. It may be beneficial for psychology trainees to be aware of issues surrounding competition among women, including indirect aggression and social comparison, which may potentially impact clients with whom they work. Training in the types of attitudes and behaviors related to competition among women may be necessary

for trainees who work in the psychology field, given that some trainees gain practical experience in agencies, schools, or counseling centers that serve adolescent girls and young adult women. Furthermore, as young girls have been shown to exhibit indirect aggression (Brown, 2003), it would likely be helpful if school personnel and others who interact with girls be trained on the adverse consequences of competition and its components, especially indirect aggression.

Just as the study's findings could be used to bolster practice areas in regard to the Guidelines for practice with girls and women (American Psychological Association, 2007), the findings could also be linked to the Guidelines for training purposes. For example, given that the Guidelines stated U. S. culture may socialize girls to focus on their physical appearance, it may be advantageous for those in training to gain knowledge and critical thinking skills regarding how this focus may prevent girls and women from concentrating on other aspects of their experience, such as their education. Furthermore, the current findings may be implicated in training by including information about competition among women in the Guidelines, to ensure that trainees would have exposure to the issues. Thus, trainees could be prepared in advance with knowledge about competition among women and related issues, so that these concerns could ultimately be addressed in clinical work with female clients.

#### Limitations

An analysis of the current study has yielded several areas of limitation, which have been acknowledged, including considerations of design, sample, selection, and

generalizability. In order to remain true to the advancement of scientific knowledge in the research area of competition among women, these limitations have been outlined below. It was noted that the current study was exploratory in nature, as little research existed regarding the relationship among variables used in the study. The current study was intended to study broadly the area of competition among women and its relationship to the variables of self-esteem, friendship intimacy, feminist identity development, hostility toward women, ethnicity, and age; in addition, possible moderating variables were examined. Because of the limitations of the current study, further research may be necessary to validate, enhance, and confirm the present findings.

### *Design Considerations*

The current study primarily utilized correlational design and analysis, which excluded causal inference. Therefore, conclusions could not be drawn that any of the aforementioned variables caused competition among women, or conversely, that competition among women caused any of the variables. While theoretical suppositions and research studies have supported the finding that competition among women and the five other variables were related (Barash, 2006; Brown & Gilligan, 1992; Crothers et al., 2005; Harris-McDonald & Mollen, 2006; Mahalik et al., 2005), the direction of such relationships could not be deduced from the current findings.

Also, correlational analyses have been unable to rule out alternative explanations of findings. While the current study attempted to rule out the effect of some variables by examining factors that may have moderated the relationship between two variables, other confounding variables, such as socioeconomic status, may have impacted the

relationships between variables as well. It has been suggested that socioeconomic status has had an effect on examinations of ethnic differences (Barlow, Taylor, & Lambert, 2000); thus, socioeconomic status may have impacted the relationships in the present study, though it was not a variable included. It was possible that individuals from different socioeconomic statuses may have exhibited differing levels of competition among women or other variables, along with ethnicity.

Another design limitation of the present study involved the use of the internet for the dissemination and completion of questionnaires. Because the study's instruments were only accessible through the internet, the researcher had lack of control over who completed questionnaires. This lack of control may have impacted the current research, in that the researcher relied on participants to be honest regarding their demographics and answers on the instruments, when in actuality participants could have presented themselves in any way they wished since the researcher would have no legitimate way of knowing their true answers. Also, though specific internet-based groups of women were targeted for their diversity, including culture, ethnicity, and age, the researcher had no control over which women from which listservs participated. Additionally, due to structural limitations of the Psychdata website, the instruments were not presented in random order. Therefore, no counterbalancing of instruments occurred, so that the present research may have been vulnerable to order effects (Zimny, 1961).

Finally, the operationalization and measurement of the study's variables were included in the design limitations. Broadly, self-report measures such as those used in the current study may have limited the results due to distorted recall of past events, such as

being unable to accurately recall aspects of friendship that could have influenced answers on the MSIS (Miller & Lefcourt, 1982). The fact that the instruments used in the study were self-report measures may have led to inaccuracy in measurement of the variables that the scales were assessing, since self-report relied on participants to report behaviors or attitudes that they did not necessarily carry into real-life situations (Cohen & Swerdlik, 1999). Another overarching limitation regarding the instruments in the current study was that participants may have misunderstood the items in the instruments, although every effort was made to insure that questions were clearly understandable. Thus, participants may have over- or under-rated their self-reports on the instruments. Limitations for each of the instruments used in the study have been outlined below.

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) was found to have high internal reliability. However, the scale had high face validity, so that participants were likely aware that the scale was measuring self-esteem, which may have impacted their answers on the instrument. Also, the scale contained only ten items, so that the full construct of self-esteem may not have been captured by the items that made up the scale.

Another instrument with limitations that might have impacted the study results included the MSIS (Miller & Lefcourt, 1982). The MSIS was found to have failed at adequately assessing the multi-dimensional construct of intimacy (Hook et al., 2003). Thus, the scale may not have accurately measured participants' levels of intimacy within close friendship. Additionally, the researcher did not investigate additional demographic variables of participants' closest friends, such as age, sexual orientation, and ethnicity, which may have affected the findings regarding friendship intimacy in the present

investigation. Also, because U.S. researchers may have valued egalitarianism and openness in friendships, the MSIS developers may have used this value system in constructing their scale, which could have influenced reported scores of friendship intimacy in the present study.

Additionally, the Feminist Identity Composite (Fischer et al., 2000) had limitations that could have influenced the study's results. Researchers have noted that the item content of the FIC may have been limited, in that the items may not have fully encompassed aspects of each developmental status of feminist identity development (Fischer et al.). Thus, results in the current study might have inaccurately measured participants' levels of feminist identity development. Additionally, the Downing and Roush (1985) model used to derive the FIC items also has been postulated to exclude certain aspects of feminist development, particularly the multiple contexts of women's lives, so that the FIC used in the current study may have not fully measured all aspects of participants' feminist identity development (Fischer et al.).

The Hostility Toward Women Scale used in the current study (Lonsway & Fitzgerald, 1995) had shortcomings that may have affected the study's outcome. The HTW had been modified by Lonsway and Fitzgerald in order to more quickly and clearly assess levels of hostility toward women. However, the researchers noted that they modified the scale to 10 items from an original 30 items; thus, the items that made up the modified HTW scale may not have encompassed all aspects of hostility toward women or accurately measured participants' levels of hostility toward women. Lonsway and

Fitzgerald also performed minimal procedures related to validity and reliability of the scale, so that the scale may not be a sound measure of the construct.

Finally, the CAWS (Harris-McDonald & Mollen, 2006) also exhibited drawbacks that could have had some bearing on the study's findings. Harris-McDonald and Mollen outlined the limitations of the instrument. First, the item content of the scale may have been limited, so that some elements of competition among women may not have been measured adequately. Additionally, the underlying structure appeared to have three components of social comparison, superiority, and attractiveness, and this might have meant that other components, such as envy or indirect aggression, might not have been part of competition among women or that the CAWS may have needed further refinement. Although the CAWS was found to have adequate reliability and convergent validity, it was not found to have exhibited significant divergent validity when compared to a measure of cooperation. Because scores on the CAWS were not sufficiently different from scores on a measure of cooperation, this indicated that items on the CAWS scale may not have deviated far enough from the construct of cooperation, although the constructs are theoretically opposites.

Although the CAWS had limitations, the investigator chose to use the scale in the current study due to the fact that no other scale has been developed to specifically measure negative competition among women. In addition, despite that the CAWS may not encompass the full content range of competition among women, it was shown to accurately measure the areas of social comparison, superiority, and attractiveness; furthermore, all of these variables have been theorized to be content areas of competition

among women. However, the CAWS scale should be refined and its initial validation should be replicated in order to ensure that it adequately measures competition among women.

### *Sample and Selection Considerations*

Other limitations of the current research included characteristics of the sample and its selection. First, women who did not complete the survey in full were slightly more likely to be over the age of 50 or to have professional degrees. Older women may have been less invested in the survey because they were may not have been eligible to receive the benefit of extra course credit for their participation, or because they may have been more likely to grow up in a time where competition among women was less openly acknowledged. Professional women may have not desired to complete the survey because they were highly successful and may not have thought competition among women was relevant to their lives.

Also, the sample for the present study was drawn from women who had access to the internet, as well as women in undergraduate psychology courses at a predominately female university. Therefore, the results of the study may have been affected by characteristics that may have existed in these populations. Because the study was internet-based, the respondents of the present study may have differed from women who did not participate; for example, perhaps the women who chose to participate had resources which enabled them to own a computer or have access to a computer, whereas women who did not participate may not have had similar access. Women from lower social classes may not have been able to afford internet access, so that women from

higher social classes may have had greater resources and were more likely to participate in the study. Women who were in a university setting may have differed from other potential participants in that they had resources to attend college, whereas those who did not participate may not have had similar resources. Additionally, the types of listservs and contact groups accessed for the current study may have impacted who decided to participate, and these participants may also have differed in important ways from those who did not participate; for example, women from a Black internet-based social group may have differed from women in a non-internet-based social group for Black women.

Moreover, the participants who were enrolled in specific psychology courses at a predominantly female university were eligible to receive course credit for their participation, so they may have differed in meaningful ways from those who did not participate. Similarly, all participants may have varied from those who did not participate, in that a monetary incentive was offered for those who participated in the study. Also, participation in the current study was voluntary, so women who completed the study may have had more interest in the topic than those who did not participate, which could have influenced their scores on the instruments.

Other considerations regarding sample and selection limitations included the issues of demand characteristics and social desirability. Deception was not used in the current study, so that participants were informed of the purpose of the study and may have deduced what the study was attempting to measure. Participants were told the study was examining the relationship between competition among women and other variables, so the participants may have responded in ways that supported the relationship of

competition among women to certain variables. Social desirability could have also influenced participant's scores on the measures. It was noted that competition among women has been viewed as socially undesirable, as it might have indicated that women felt devious toward other women (Tannenbaum, 2002).

### *Generalizability Considerations*

Due to several limitations of the current study, generalizing the study's results to a larger population may not be appropriate. In any case, the results should be generalized to a wider population with caution, as the present results were from a convenience sample of undergraduate women enrolled in psychology courses at a predominantly female, public university, as well as a snowball sample of women who had access to the internet. In addition, uncertainty existed as to whether or not participants were representative of each listserv contacted or of the general population of women.

The fact that the sample consisted of women accessible through the internet may have limited the results of the study. It has been shown that internet users may have differed from the general population on many factors, including demographic and psychological aspects (Robinson, Neustadt, & Kestenbaum, 2002). In fact, internet users were found to be more likely to be White and have children than the general population (U.S. Department of Commerce, 2002). Thus, the current study's sample may have differed in meaningful ways from the larger population, which may have limited the generalizability of the present findings.

Additionally, the demographics of the participants in the present study were skewed in terms of age and ethnicity, which has limited the application of the current

findings. Although the study contained a fairly broad range of women from varying ethnicities, these women may have been younger and more educated than what is typical for the general population. It is noted that the sample was overrepresented with young women in college who were early in their academic progress. Thus, these factors may have limited the applicability of the present findings to a wider population of women.

Finally, participants in the current study were heterosexual. Therefore, the study cannot be generalized to women of other sexual orientations, such as lesbian, bisexual, or asexual, or transgender. Given that sexual orientation has been conceptualized as occurring on a continuum rather than as a dichotomy (Garber, 1995; Kinsey, Pomeroy, & Martin, 1948), the present research may have limited results due to lack of acknowledgment of differing sexual or affective orientations.

### Conclusion

Within the field of women's psychology, the construct of competition among women is beginning to be identified and studied (Cashdan, 1998; Chesler, 2001; Harris-McDonald & Mollen, 2006). The association between competition among women and other variables has provided valuable information to increase the understanding of women's relationships with one another. Theorists have postulated that several variables may be important in studying competition among women, including friendship intimacy (Barash, 2006), feminist identity development (Mahalik et al., 2005; Yakushko, 2007), self-esteem (Tracy, 1991), hostility toward women (Cowan et al., 1998), ethnicity (Cashdan, 1998; Joseph, 1985), and age (Harris-McDonald & Mollen, 2006).

Results have indicated that age, self-esteem, and feminist identity development were inversely related to competition among women. In addition, self-esteem and age were found to impact the relationship between competition among women and hostility toward women, respectively, by enhancing the relationship. Thus, the study supported the idea that several variables may play a role in the expression of competition among women.

Although the current findings have limitations and should be replicated, it seems that competition among women is related to some important variables that may impact the psychological health of women. While other variables may also be related to competition among women and should be explored, the current research and other studies are beginning to examine and determine correlates and protective factors related to competition among women. The present findings indicate the need for increased investigations of variables that relate to competition among women and explorations of how they relate to women's relationships with each other.

## CHAPTER VI

### REFERENCES

- Abell, S. C., & Richards, M. H. (1996). The relationship between body shape satisfaction and self-esteem: An investigation of gender and class differences. *Journal of Youth and Adolescence, 25*, 691-703.
- Acker, J., Barry, K., & Esseveld, J. (1981). Feminism, female friends, and the reconstruction of intimacy. *Research in the Interweave of Social Roles: Friendship, 2*, 75-108.
- Alarcon, M. C. B. (1997). *The relationship between womanist identity attitudes, cultural identity, and acculturation to Asian-American women's self-esteem*. Unpublished doctoral dissertation. Ball State University.
- American Psychological Association (2007). Guidelines for psychological practice with girls and women. *American Psychologist, 62*, 949-979.
- Apter, T., & Josselson, R. (1998). *Best friends*. New York: Random House.
- Banks, J. A. (1987). *Teaching strategies for ethnic studies*. (4<sup>th</sup> ed.). Boston: Allyn & Bacon.
- Barash, S. S. (2006). *Tripping the prom queen: The truth about women and rivalry*. New York: St. Martin's Griffin.
- Bargad, A., & Hyde, J. S. (1991). A study of feminist identity development in women. *Psychology of Women Quarterly, 15*, 181-201.

- Barlow, K. M., Taylor, D. M., & Lambert, W. E. (2000). Ethnicity in America and feeling 'American.' *Journal of Psychology: Interdisciplinary and Applied*, *134*, 581-600.
- Benenson, J. F., & Benarroch, D. (1998). Gender differences in responses to friends' hypothetical greater success. *Journal of Early Adolescence*, *18*, 192-208.
- Benenson, J. F., & Christakos, A. (2003). The greater fragility of females' versus males' closest same-sex friendships. *Child Development*, *74*, 1123-1129.
- Berscheid, E. (1985). Interpersonal attraction. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology, Vol. 2. Special fields and application* (3<sup>rd</sup> ed., pp. 413-485). New York: Random House.
- Bevan, J. L., & Samter, W. (2004). Toward a broader conceptualization of jealousy in close relationships: Two exploratory studies. *Communication Studies*, *55*, 14-28.
- Biro, F. M., Striegel-Moore, R. H., Franko, D. L., Padgett, J. & Bean, J. A. (2006). Self-esteem in adolescent females. *Journal of Adolescent Health*, *39*, 501-507.
- Bjorkqvist, K., Lagerspetz, M. J., & Kaukiainen, A. (1992). Do girls manipulate and boys fight? Developmental trends in regard to direct and indirect aggression. *Aggressive Behavior*, *18*, 117-127.
- Bjorkqvist, K., Osterman, K., & Hjelt-Beck, M. (1994). Aggression among university employees. *Aggressive Behavior*, *20*, 173-184.

- Bjorkqvist, K., Osterman, K., & Kaukiainen, A. (1992). The development of direct and indirect aggressive strategies in males and females. In K. Bjorkqvist & P. Niemela, (Eds.), *Of mice and women: Aspects of female aggression* (pp. 51-64). San Diego: Academic Press.
- Bjorkqvist, K., Osterman, K., & Lagerspetz, K. M. (1994). Sex differences in covert aggression among adults. *Aggressive Behavior, 20*, 27-33.
- Blackford, H. (2004). Playground panopticism: Ring-around-the-children, a pocketful of women. *Childhood, 11*, 227-249.
- Blascovich, J., & Tomaka, J. (1993). Measures of self-esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrighsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 115-123). Ann Arbor: Institute for Social Research.
- Bleske, A. L., & Buss, D. M. (2000). Can men and women be just friends? *Personal Relationships, 7*, 131-151.
- Bleske, A. L., & Shackelford, T. K. (2001). Poaching, promiscuity, and deceit: Combatting mating rivalry in same-sex friendships. *Personal Relationships, 8*, 407-424.
- Bliss, G. K. (2000). *Self-disclosure and friendship patterns: Gender and sexual orientation differences in same-sex and opposite-sex differences*. Unpublished doctoral dissertation. The University of New Mexico.
- Boisnier, A. D. (2003). Race and women's identity development: Distinguishing between feminism and womanism among black and white women. *Sex Roles, 49*, 211-218.

- Bond, M., & Hwang, K. (1986). The social psychology of Chinese people. In M. Bond (Ed.), *The psychology of the Chinese people* (pp. 213-266). Hong Kong: Oxford University Press.
- Bowler, R., Rauch, S., & Schwarzer, R. (1986). Self-esteem and interracial attitudes in Black high school students: A comparison with five different ethnic groups. *Urban Education, 21*, 3-19.
- Brewer, M. B. (2007). The importance of being we: Human nature and intergroup relations. *American Psychologist, 62*, 728-738.
- Briles, J. (1987). *Woman to woman: From sabotage to support*. Far Hills, New Jersey: New Horizon Press.
- Brown, L. M. (1998). *Raising their voices: The politics of girls' anger*. Cambridge: Harvard University Press.
- Brown, L. M. (2003). *Girlfighting: Betrayal and rejection among girls*. New York: New York University Press.
- Brown, L. M., & Gilligan, C. (1992). *Meeting at the crossroads: Women's psychology and girls' development*. Cambridge: Harvard University Press.
- Brown, L. S., & Brodsky, A. M. (1992). The future of feminist therapy. *Psychotherapy, 29*, 51-57.
- Bruneau, T., & Ishii, S. (1988). Silence and silences in cross-cultural perspective: Japan and the United States. In L. Samover & R. Porter (Eds.), *Intercultural communication: A reader* (pp. 310-319). Belmont, CA: Wadsworth.

- Burckle, M. A., Ryckman, R. M., Gold, J. A., Thornton, B., & Audesse, R. J. (1999). Forms of competitive attitude and achievement orientation in relation to disordered eating. *Sex Roles, 40*, 853-870.
- Buss, D. A. (1988a). The evolution of human intrasexual competition: Tactics of mate retention. *Journal of Personality and Social Psychology, 54*, 616-628.
- Buss, D. A. (1988b). From vigilance to violence: Tactics of mate retention in American undergraduates. *Ethology and Sociobiology, 19*, 291-317.
- Buss, D. A., & Dedden, L. A. (1990). Derogation of competitors. *Journal of Social and Personal Relationships, 7*, 395-422.
- Buss, D. M., Shackelford, T. K., Choe, J. Buunk, B.P. & Dijkstra, P. (2000). Distress about mating rivals. *Personal Relationships, 7*, 235-243.
- Buunk, B. P., & Dijkstra, P. (2004). Gender differences in rival characteristics that evoke jealousy in response to emotional versus sexual infidelity. *Personal Relationships, 11*, 395-408.
- Cairns, R. B., & Cairns, B. D. (1994). *Lifelines and risks: Pathways of youth in our time*. Cambridge, England: Cambridge University Press.
- Campbell, A. (1986). Self report of fighting by females. *British Journal of Criminology, 26*, 28-46.
- Campbell, A. (1999). Staying alive: Evolution, culture, and women's intrasexual aggression. *Behavioral and Brain Sciences, 22*, 203-252.
- Campbell, A. (2002). *A mind of her own: The evolutionary psychology of women*. New York: Oxford University Press.

- Campbell, A. (2004). Female competition: Causes, constraints, content, and contexts. *The Journal of Sex Research, 41*, 16-26.
- Caplan, P. (1981). *Barriers between women*. New York: SP Medical & Science Books.
- Carpenter, S., & Johnson, L. E. (2001). Women derive collective self-esteem from their feminist identity. *Psychology of Women Quarterly, 25*, 254-257.
- Cascardi, M., O'Leary, K. D., Lawrence, E. E., & Schlee, K. A. (1995). Characteristics of women physically abused by their spouses and who seek treatment regarding marital conflict. *Journal of Consulting and Clinical Psychology, 63*, 616-623.
- Cash, D. F., Cash, D. W., & Butters, J. W. (1983). "Mirror, mirror, on the wall...?" Contrast effects and self-evaluations of physical attractiveness. *Personality and Social Psychology Bulletin, 9*, 351-358.
- Cashdan, E. (1998). Are men more competitive than women? *Journal of Social Psychology, 37*, 213-229.
- Chang, H., & Holt, G. R. (1991). More than relationship: Chinese interaction and the principle of kuan-his. *Communication Quarterly, 39*, 251-271.
- Check, J. V. P. (1988). Hostility toward women: Some theoretical considerations. In G. W. Russell (Ed.), *Violence in intimate relationships*, (pp. 29-42). Great Neck, NY: PMA Publishing Corporation.
- Check, J. V. P., Malamuth, N. M., Elias, B., & Barton, S. (1985, April). On hostile ground. *Psychology Today, 56-61*.
- Chesler, P. (2001). *Woman's inhumanity to woman*. New York: Plume.

- Clayton, K. D., & Trafimow, D. (2007). A test of three hypotheses concerning attributions toward female promiscuity. *The Social Science Journal, 44*, 677-686.
- Cline-Naffziger, C. (1974). Women's lives and frustration, oppression, and anger: Some alternatives. *Journal of Counseling Psychology, 21*, 51-56.
- Cohen, B. (1986). *The Snow White syndrome: All about envy*. New York: Macmillan Publishing Company.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Cohen, J., & Cohen, P. (1975). *Applied multiple regression/correlation analyses for the behavioral sciences*. Hillsdale, NJ: John Wiley & Sons.
- Cohen, R. J. & Swerdlik, M. E. (1999). *Psychological testing and assessment: An introduction to tests and measurement*. Mountain View, CA: Mayfield Publishing.
- Cokley, K. O. (2005). Racial(ized) identity, ethnic identity, and afrocentric values: Conceptual and methodological challenges to understanding African American identity. *Journal of Counseling Psychology, 52*, 217-526.
- Collier, M. J. (1996). Communication competence problematics in ethnic friendships. *Communication Monographs, 63*, 314-336.
- Collier, M. J., & Thomas, M. (1988). Identity in intercultural communication: An interpretive perspective. In Y. Kim and W. Gudykunst, (Eds.) *Theories of intercultural communication* (pp. 99-120). Newbury Park, CA: Sage.
- Cowan, G. (2000). Women's hostility toward women and rape and sexual harassment Myths. *Violence Against Women, 6*, 238-246.

- Cowan, G., & Mills, R. D. (2004). Personal inadequacy and intimacy predictors of men's hostility toward women. *Sex Roles, 51*, 67-78.
- Cowan, G., Neighbors, C., DeLaMoureaux, J., & Behnke, C. (1998). Women's hostility toward women. *Psychology of Women Quarterly, 22*, 267-284.
- Cowan, G., & Ullman, J. (2006). In-group rejection among women: The role of personal inadequacy. *Psychology of Women Quarterly, 30*, 399-409.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66*, 710-722.
- Crothers, L. M., Field, J. E., & Kolbert, J. B. (2005). Navigating power, control, and being nice: Aggression in adolescent girls' friendships. *Journal of Counseling and Development, 83*, 349-354.
- Crowne, D. P. & Marlowe, D. (1964). *The approval motive: Studies in evaluative dependence*. New York: John Wiley & Sons.
- Davidson, L. R., & Duberman, L. (1982). Friendship: Communication and interactional patterns in same-sex dyads. *Sex Roles, 8*, 809-822.
- Dietz, B. E. (1996). The relationship of aging to self-esteem: The relative effects of maturation and role accumulation. *International Journal of Aging and Human Development, 43*, 249-266.
- Dijkstra, P., & Buunk, B. P. (2002). Sex differences in the jealousy-evoking effect of rival characteristics. *European Journal of Social Psychology, 32*, 829-852.

- Dimen, M. (1994). In the zone of ambivalence: A journal of competition. In S. O. Weisser & J. Fleischner, (Eds.), *Feminist nightmares: Women at odds*. (pp. 358-379). New York: New York University Press.
- Dobson, C., Goudy, W. J., Keith, P. M., & Powers, E. (1979). Further analysis of Rosenberg's self-esteem scale. *Psychological Reports, 44*, 639-641.
- Doob, L. (1952). *Social psychology: An analysis of human behavior*. New York: Holt, Reinhart, & Winston.
- Downie, M. S., & Robbins, S. B. (1998). Assessing the qualities of social relationships in clinical and nonclinical individuals. *The Counseling Psychologist, 26*, 466-488.
- Downing, N., & Roush, K. (1985). From passive acceptance to active commitment: A model of feminist identity development for women. *The Counseling Psychologist, 13*, 695-709.
- Eckert, P. (1990). Cooperative competition in adolescent "girl talk." *Discourse Processes, 13*, 91-122.
- Eder, D., & Enke, J. L. (1991). The structure of gossip: Opportunities and constraints on collective expression among adolescents. *American Sociological Review, 56*, 494-508.
- Eichenbaum, L., & Orbach, S. (1988). *Between women: Love, envy, and competition*. New York: Viking.
- Ely, R. J. (1994). The effects of organizational demographics and social identity on relationships among professional women. *Administrative Science Quarterly, 39*, 203-238.

- Faer, L. M., Hendriks, A., Abed, R. T., & Figueredo, A. J. (2005). The evolutionary psychology of eating disorders: Female competition for mates or for status? *Psychology and Psychotherapy: Theory, Research, and Practice, 78*, 397-417.
- Fehr, B. (1996). *Friendship processes*. Thousand Oaks, CA: Sage.
- Fehr, B. (2000). The life cycle of friendship. In C. Hendrick & S. S. Hendrick (Eds.), *Close relationships: A sourcebook*. Thousand Oaks, CA: Sage.
- Feingold, A. (1990). Gender differences in effects of physical attractiveness on romantic attraction: A comparison across five research paradigms. *Journal of Personality and Social Psychology, 59*, 981-993.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140.
- Fillion, K. (1996). *Lip service: The truth about women's darker side in love, sex, and friendship*. New York: Harper Collins Publishers.
- Fine, G. A., & Rosnow, R. L. (1978). Gossip, gossipers, and gossiping. *Personality and Social Psychological Bulletin, 4*, 161-168.
- Fischer, A. R., & Good, G. E. (1994). Gender, self, and others: Perceptions of the campus environment. *Journal of Counseling Psychology, 41*, 343-355.
- Fischer, A. R., Tokar, D. M., Mergl, M. M., Good, G. E., Hill, M. S., & Blum, S. A. (2000). Assessing women's feminist identity development. *Psychology of Women Quarterly, 24*, 15-29.
- Fischer, C. S., & Oliner, S. J. (1983). A research note on friendship, gender, and the life cycle. *Social Forces, 62*, 124-133.

- Fleming, J. S., & Courtney, B. E. (1984). The dimensionality of self-esteem II: Hierarchical facet model for revised measurement scales. *Journal of Personality and Social Psychology, 46*, 404-421.
- Forbes, G.B, Collinsworth, L. L., Jobe, R. L., Braun, K. D., & Wise, L. M. (2007). Sexism, hostility toward women, and endorsement of beauty ideals and practices: Are beauty ideals associated with oppressive beliefs? *Sex Roles, 56*, 265-273.
- Forsterling, F., Preikschas, S., & Agthe, M. (2007). Ability, luck, and looks: An evolutionary look at achievement ascriptions and the sexual attribution bias. *Journal of Personality and Social Psychology, 92*, 775-788.
- Foss, P. L., & Galloway, J. (1993). Sexual jealousy in young women and men: Aggressive responses to partner and rival. *Aggressive Behavior, 19*, 401-420.
- Frazier, P. A., Tix, A. P., & Barron, K. E. (1994). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51*, 115-134.
- Frederick, J. D. (1989). *A female hostility toward women scale*. Unpublished doctoral dissertation. University of Wyoming.
- Freire, P. (1970). *Pedagogy of the oppressed*. New York: Continuum.
- Fricke, R. L. F. (2007). *Interaction of relationship satisfaction, depressive symptoms, and self-esteem in college-aged women*. Unpublished doctoral dissertation. Fuller Theological Seminary School of Psychology.
- Fulgini, A. J., Burton, L., Marshall, S., Perez-Febles, A., Yarrington, J., Kirsh, L.B., & Merriweather-DeVries, C. (1999). Attitudes toward family obligations

- among American adolescents with Asian, Latin American, and European backgrounds. *Child Development*, 70, 1030-1044.
- Furman, F. K. (1997). *Facing the mirror: Older women and beauty shop culture*. New York: Routledge.
- Furman, W. (1985). Compatibility and incompatibility in children's peer and sibling relationships. In W. Ickes (Ed.), *Compatible and incompatible relationships* (pp. 61-87). New York: Springer-Verlag.
- Gali-Alfonso, N. (2005). *The experience of envy between young women and their female friends: A psychological perspective*. Unpublished doctoral dissertation. Massachusetts School of Professional Psychology.
- Garber, M. (1995). *Vice versa: Bisexuality and the eroticism of everyday life*. New York: Simon & Schuster.
- George, M. J. (1999). A victimization survey of female perpetrated assaults in the United Kingdom. *Aggressive Behavior*, 25, 67-79.
- Glazer, I. M. (1992). Interfemale aggression and resource scarcity in a cross-cultural perspective. In Bjorkqvist, K. & Niemela, P. (Eds.), *Of mice and women: Aspects of female aggression* (pp. 51-64). San Diego: Academic Press.
- Goodwin, R., & Lee, I. (1994). Taboo topics among Chinese and English friends. *Journal of Cross-Cultural Psychology*, 25, 325-338.
- Gouldner, H., & Strong, M. S. (1987). *Speaking of friendship: Middle-class women and their friends*. New York: Greenwood Press.

- Green, L. R., Richardson, D. R., & Lago, T. (1996). How do friendship, indirect, and direct aggression relate? *Aggressive Behavior*, 22, 81-86.
- Griffin-Pierson, S. (1988). Achievement and competitiveness in women. *Journal of College Student Development*, 29, 491-495.
- Griffin-Pierson, S. (1990). The competitiveness questionnaire: A measure of two components of *competitiveness*. *Measurement and Evaluation in Counseling and Development*, 23, 108-115.
- Grossman, J. (2003). Anarchy in eros. *The American Spectator*, 56-58.
- Gudykunst, W., & Nishida, T. (1983). Social penetration in Japanese and North American friendships. In R. Bostram (Ed.) *Communication yearbook 7*. Beverly Hills, CA: Sage.
- Guendouzi, J. (2004). 'She's very slim': Talking about body-size in all-female interactions. *Journal of Pragmatics*, 36, 1635-1653.
- Hammer, M. R., & Gudykunst, W. B. (1987). The influence of ethnicity and sex on social penetration in close friendships. *Journal of Black Studies*, 17, 418-437.
- Harris-McDonald, K., & Mollen, D. (2006, November). *The competition among women scale*. Poster session presented at the Texas Psychological Association Annual Convention, Dallas, Texas.
- Hartup, W. W. (1983). Peer relations. In P. H. Mussen (Ed.), *Handbook of child Psychology: Vol. 4 Socialization, personality, and social development*. (4<sup>th</sup> ed., pp. 103-196). New York: Wiley.

- Hearne, C. M. (1997). *Women's experiences of competition in different relational contexts: An analog study*. Unpublished doctoral dissertation. The University of Texas at Austin.
- Helmreich, R. L., & Spence, J. T. (1978). The work and family orientation questionnaire: An objective instrument to assess components of achievement motivation toward family and career. *JSAS Catalog of Selected Documents in Psychology*, 8, 35.
- Henderson, S. N., & Cunningham, J. D. (1993). Women's emotional dependence on men: Scale construction and test of Russianoff's hypothesis. *Sex Roles*, 28, 317-334.
- Henry, A. (2006). Enviously grateful, gratefully envious: The dynamics of generational relationships in U.S. feminism. *Women's Studies Quarterly*, 34, 140-153.
- Hill, C. E., Knox, S., Thompson, B. J., Williams, E. N., Hess, S. A., Ladany, N. (2005). Consensual qualitative research: An update. *Journal of Counseling Psychology*, 52, 196-205.
- Hines, N. J., & Fry, D.D. (1994). Indirect modes of aggression among women of Buenos Aires, Argentina. *Sex Roles*, 30, 213-236.
- Hoelter, J. W. (1983). Factorial invariance and self-esteem: Reassessing race and sex differences. *Social Forces*, 61, 834-836.
- Holland, D. C. (1992). How cultural systems become desire: A case study of American romance. In R. G. D' Andrade & C. Strauss (Eds.), *Human motives and cultural models* (pp. 61-89). New York: Cambridge University Press.

- Hook, M. K., Gerstein, L. H., Detterich, L., & Gridley, B. (2003). How close are we? Measuring intimacy and examining gender differences. *Journal of Counseling and Development, 81*, 462-472.
- Hooks, B. L., & Green, P. A. (1993). Cultivation male allies: A focus on primate females, including homo sapiens. *Human Nature, 4*, 81-107.
- Horner, M. (1972). Toward an understanding of achievement-related conflicts in women. *Journal of Social Issues, 28*, 157-176.
- Horney, K. (1937). *Neurotic personality of our time*. New York: W. W. Norton.
- Houskamp, B.M., & Foy, D. W. (1991). The assessment of posttraumatic stress disorder in battered women. *Journal of Interpersonal Violence, 6*, 367-375.
- Houston, J., Harris, P., McIntire, S., & Francis, D. (2002). Revising the competitiveness index using factor analysis. *Psychological Reports, 90*, 31-34.
- Howell, M. C. (1974). Professional women and the feminist movement. *Journal of The National Association for Women Deans, Administrators, and Counselors, 37*, 84-87.
- Huddy, L., Neely, F. K., & Lafay, M. R. (2000). The polls-trends: Support for the women's movement. *Public Opinion Quarterly, 64*, 309-350.
- Hurt, M. M., Nelson, J. A., Turner, D. L., Haines, M. E., Ramsey, L. R., Erchull, M. J., et al. (2007). Feminism: What is it good for? Feminine norms and objectification as the link between feminist identity and clinically relevant outcomes. *Sex Roles, 57*, 355-363.

- Ingo, K. M., Mize, K. D., & Pratarelli, M. E. (2007). Female intrasexual competition: Toward an evolutionary feminist theory. *Theory and science, 19*, 2-12. Retrieved November 27, 2007 from the Women's Studies International database.
- Jackson, P. B., & Lassiter, S. P. (2001). Self-esteem and race. In T. J. Owens, S. Stryker, & N. Goodman (Eds.), *Extending self-esteem theory and research: Sociological and psychological currents* (pp. 223-254). New York: Cambridge University Press.
- Johannessen, C. A. (1992). *Competition between women: A conceptualization and an evaluation of the relational process*. Unpublished doctoral dissertation. Antioch University/ New England Graduate School.
- Jonason, P. K. (2007). An evolutionary psychology perspective on sex differences in exercise behaviors and motivations. *Journal of Social Psychology, 147*, 5-14.
- Joseph, R. (1985). Competition between women. *Psychology: A Quarterly Journal of Human Behavior, 22*, 1-12.
- Josephs, R. A., Markus, H. R., & Tafarodi, R. W. (1992). Gender and self-esteem. *Journal of Personality and Social Psychology, 63*, 391-402.
- Jost, J. T. (1995). Negative illusions: conceptual clarification and psychological evidence concerning false consciousness. *Political Psychology, 16*, 397-424.
- Keller, E. F., & Moglen, H. (1987). Competition: A problem for academic women. In V. Miner & H. E. Longino (Eds.), *Competition: A feminist taboo?* (pp. 21-37). New York: The Feminist Press.

- Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). *Sexual behavior in the human male*. Philadelphia: Saunders.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology*, *72*, 1245-1267.
- Knickmeyer, N., Sexton, K., & Nishimura, N. (2002). The impact of same-sex friendships on the well-being of women: A review of the literature. *Women & Therapy*, *25*, 37-59.
- Krantz, D. S., Olson, M. B., Francis, J. L., Phankao, C., Merz, M. B., Sopko, G. et al. (2006). Anger, hostility, and cardiac symptoms in women with suspected coronary artery disease: The women's ischemia syndrome evaluation (WISE) study. *Journal of Women's Health*, *15*, 1214-1223.
- Kraut, R., Olson, J., Banaji, M., Bruckman, A., Cohen, J. & Couper, M. (2004). Psychological research online: Report of board of scientific affairs' advisory group on the conduct of research on the Internet. *American Psychologist*, *59*, 105-117.
- Kritis, K. J. (1998). *A relational paradox: The mother-daughter relationship and achievement in young adult women*. Unpublished doctoral dissertation. Columbia University.

- Lagerspetz, K. M., Bjorkqvist, K. & Peltonen, T. (1988). Is indirect aggression typical of females? Gender differences in aggressiveness in 11 to 12 year-old children. *Aggressive Behavior, 14*, 403-414.
- LaSorsa, V. A., & Fodor, I. G. (1990). Adolescent daughter/ midlife mother dyad. *Psychology of Women Quarterly, 14*, 593-606.
- Lees, S. (1993). *Sugar and spice: Sexuality and adolescent girls*. London: Penguin Books.
- Leonard, S. (2006). Marriage envy. *Women's Studies Quarterly, 34*, 43-64.
- Litwin, A. H., & Hallstein, L. O. (2007). Shadows and silences: How women's positioning and friendship rules in organizational settings cultivate difficulties among some women at work. *Women's Studies in Communication, 30*, 111-142.
- Lockwood, D. (1997). *Violence among middle school and high school students: Analysis and implications for prevention*. Washington, DC: National Institute of Justice Research in Brief, Department of Justice.
- Loewenthal, K. M. (2001). *An introduction to psychological tests and scales*. (Second ed.) Philadelphia, PA: Taylor & Francis, Inc.
- Longino, H. E. (1987). The ideology of competition. In V. Miner & H. E. Longino, (Eds.) *Competition: A feminist taboo?* (pp. 248-258). New York: The Feminist Press.
- Longino, H. E., & Miner, V. (1987). A feminist taboo? In V. Miner & H. E. Longino, (Eds.) *Competition: A feminist taboo?* (pp.1-7). New York: The Feminist Press.

- Lonsway, K. A., & Fitzgerald, L. F. (1995). Attitudinal antecedents of rape myth acceptance: A theoretical and empirical reexamination. *Journal of Personality and Social Psychology, 68*, 704-711.
- Loya, B. N., Cowan, G., & Walters, C. (2006). The role of social comparison and body consciousness in women's hostility toward women. *Sex Roles, 54*, 575-583.
- Lugones, M. C., & Spelman, E. (1987). Competition, compassion, and community: models for a feminist ethos. In V. Miner & H. E. Longino, (Eds.) *Competition: A feminist taboo?* (pp. 234-247). New York: The Feminist Press.
- Luxen, M. F., & Van de Vijver, F. J. R. (2006). Facial attractiveness, sexual selection, and personnel selection: When evolved preferences matter. *Journal of Organizational Behavior, 27*, 241-255.
- Madhavan, S. (2002). Best of friends and worst of enemies: Competition and collaboration in polygyny. *Ethnology, 41*, 69-84.
- Maguire, M. (1997). Envy between women. In M. Lawrence & M. Maguire (Eds.), *Psychotherapy with women: Feminist perspectives* (pp. 97- 131). London: Macmillan.
- Mahalik, J. R., Morray, E. B., Coonerty-Femiano, A., Ludlow, L. H., Slattery, S. M., & Smiler, A. (2005). Development of the conformity to feminine norms inventory. *Sex Roles, 52*, 417-435.
- Manning, M. C. (1997). *The relationship between racial identity and self-esteem among African-Americans*. Unpublished doctoral dissertation. New York University.

- Markham, B. (2006). Older women and security. In J. Worell & C. D. Goodheart (Eds.), *Handbook of girls' and women's psychological health* (pp. 388-396). New York: Oxford University Press.
- Martin, H. J., & Larsen, K. S. (1976). Measurement of competitive-cooperative attitudes. *Psychological Reports, 39*, 303-306.
- Martin, J. K., & Hall, G. C. N. (1992). Thinking Black, thinking internal, thinking feminist. *Journal of Counseling Psychology, 39*, 509-514.
- Matsumoto, D. A. (1987). A young woman in publishing. In V. Miner & H. E. Longino, *Competition: A feminist taboo?* (pp. 81-91). New York: The Feminist Press.
- McMullin, J. A., & Cairney, J. (2004). Self-esteem and the intersection of age, class, and gender. *Journal of Aging Studies, 18*, 75-90.
- McMurtry, N. P. (1994). *The experience of competition between women in business*. Unpublished doctoral dissertation. The Union Institute.
- Merriam-Webster's collegiate dictionary* (9<sup>th</sup> ed.). (1990). Springfield, MA: Merriam-Webster.
- Merten, D. E. (2004). Securing her experience: Friendship versus popularity. *Feminism & Psychology, 14*, 361-365.
- Meyer, J. (1988, June). *Hair pulling and name calling: A study of female/female competition*. Paper presented at the National Women's Studies Association Conference, Minneapolis, Minnesota.
- Miller, J. B. (1976). *Toward a new psychology of women*. Boston: Beacon Press.

- Miller, J. B. (1986). Patterns of control in same-sex conversations: Differences between women and men. *Women's Studies in Communication*, 8, 62-69.
- Miller, R. S., & Lefcourt, H. M. (1982). The assessment of social intimacy. *Journal of Personality Assessment*, 46, 514-518.
- Miner, V. (1987). Rumors from the cauldron: Competition among feminist writers. In V. Miner & H. E. Longino (Eds.), *Competition: A feminist taboo?* (pp.183-194). New York: The Feminist Press.
- Mize, L. K., & Pinjala, A. (2002). Sisterhood narratives: Opportunities in connections. *Journal of Feminist Family Therapy*, 14, 21-51.
- Muse, D. (1987). High stakes, meager yields: Competition among Black girls. In V. Miner & H. E. Longino (Eds.), *Competition: A feminist taboo?* (pp.152-160). New York: The Feminist Press.
- Myaskovsky, L., & Wittig, M. A. (1997). Predictors of feminist social identity among college women. *Sex Roles*, 37, 861-883.
- Myers, A., Taub, J., Morris, J. F., & Rothblum, E. D. (1998). Beauty mandates and the appearance obsession: Are lesbian and bisexual women better off? In J.C. Cogan & J. M. Erickson (Eds.), *Lesbians, levis, and lipstick: The meaning of beauty in our lives* (pp. 15-26). Binghamton, NY: The Haworth Press.
- Negy, C. (1993). Anglo- and Hispanic-Americans' performance on the Family Attitude Scale and its implications for improving measurements of acculturation. *Psychological Reports*, 73, 1211-1217.

- Nevo, O., Nevo, B. & Derech-Zehavi, A. (1993). The development of the tendency to gossip questionnaire: Construct and concurrent validation for a sample of Israeli college students. *Educational and Psychological Measurement, 53*, 973-981.
- Offen, K. (1988). Defining feminism: A comparative historical approach. *Signs, 14*, 152.
- Oliver, M. B., & Shibley Hyde, J. (1993). Gender differences in sexuality: A meta-analysis. *Psychological Bulletin, 114*, 29-51.
- Ossana, S. M., Helms, J. E., & Leonard, M. M. (1992). Do “womanist” identity attitudes influence college women’s self-esteem and perceptions of environmental bias? *Journal of Counseling and Development, 70*, 402-408.
- Osterman, K., Bjorkqvist, K., Lagerspetz, K. M. J., Kaukiainen, A., Landau, S. F., Fraczek, A., et al. (1998). Cross-cultural evidence of female indirect aggression. *Aggressive Behavior, 24*, 1-8.
- Oswalt, C. L. (1985). *Characteristics of women in male-dominated occupations: Competitiveness, sex-role orientation, attitudes towards women, and locus of control*. Unpublished doctoral dissertation. California School of Professional Psychology.
- Owens, L., Shute, R., & Slee, P. (2000). “Guess what I just heard!” : Indirect aggression among teenage girls in Australia. *Aggressive Behavior, 26*, 67-83.
- Oyserman, D., Coon, H. M., & Kimmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*, 3-72.

- Pang, V., Mizokawa, K., Morishima, J., & Olstad, R. (1985). Self-concepts of Japanese American children. *Journal of Cross-Cultural Psychology, 16*, 99-109.
- Parrott, W. G. (1991). The emotional experiences of envy and jealousy. In P. Salovey (Ed.), *The psychology of jealousy and envy*, (pp. 3-28). New York: The Guilford Press.
- Paul, L., Foss, A. & Galloway, J. (1993). Sexual jealousy in young women and men: Aggressive responsiveness to partner and rival. *Aggressive Behavior, 19*, 401-420.
- Pearson, J. L. (2003). *Conflict or solidarity: Multicultural feminism and sisterhood among women of color*. Unpublished doctoral dissertation. Colorado State University.
- Pinker, S. (2002). *The blank slate: The modern denial of human nature*. New York: Viking Press.
- Pipher, M. (1994). *Reviving Ophelia: Saving the selves of adolescent girls*. New York: Ballantine Books.
- Pogrebin, L. C. (1987). Competing with women. In V. Miner & H. E. Longino, *Competition: A feminist taboo?* (pp. 11-18). New York: The Feminist Press.
- Poran, M. A. (2006). The politics of protection: Body image, social pressures, and the misrepresentation of young Black women. *Sex Roles, 55*, 739-755.
- Porter, J. R., & Washington, R. E. (1993). Minority identity and self-esteem. *Annual Review of Sociology, 19*, 139-161.

- Raymond, J. G. (1986). *A passion for friends: Toward a philosophy of female affection*. North Melbourne, Australia: Spinifex.
- Renzetti, C. M. (1987). New wave or second stage? Attitudes of college women toward feminism. *Sex Roles, 16*, 265-277.
- Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne social desirability scale. *Journal of Clinical Psychology, 38*, 119-125.
- Rich, A. (1993). Compulsory heterosexuality and lesbian experience. In H. Abelove, M. A. Barale, & D. M. Halperin (Eds.), *The lesbian and gay studies reader* (pp. 227-254). New York: Routledge.
- Richardson, D. S., & Green, L. R. (2006). Direct and indirect aggression: Relationships as social context. *Journal of Applied Social Psychology, 36*, 2492-2508.
- Rickard, K. M. (1987, March). *Feminist identity development: Scale development and initial validation studies*. Paper presented at the annual meeting for the Association for Women in Psychology, Denver, CO.
- Rind, P. (2002). *Women's best friendships: Beyond Betty, Veronica, Thelma, and Louise*. Binghamton, NY: The Haworth Press.
- Riskind, J. H., & Wilson, D. W. (1982). Interpersonal attraction for the competitive person: Unscrambling the competition paradox. *Journal of Applied Social Psychology, 12*, 444-452.

- Robinson, J. P., Neustadtl, A., & Kestenbaum, M. (2002, May). *Why public opinion polls are inherently biased: Public opinion differences among Internet users and non-users*. Paper presented at the annual meeting at the American Association for Public Opinion Research, St. Petersburg Beach, FL.
- Robinson, T. L., & Howard-Hamilton, M. (1994). An Afrocentric paradigm: Foundation for a healthy self-image and healthy interpersonal relationships. *Journal of Mental Health Counseling, 16*, 327-339.
- Romney, P., & Goli, M. (1991). Projective identification and eating disorders on a college campus. *Journal of College Student Psychotherapy, 6*, 53-74.
- Rose, S., & Rodes, R. (1987). Feminism and women's friendships. *Psychology of Women Quarterly, 11*, 243-254.
- Rosenberg, M. (1965). *Society and the adolescent child*. Princeton, NJ: Princeton University Press.
- Rosenberg, M., & Perlin, L. I. (1978). Social class and self-esteem among children and adults. *American Journal of Sociology, 84*, 53-77.
- Rosenfield, S. (1999). Splitting the difference: Gender, the self, and mental health. In C. S. Aneshensel & J. Phelan (Eds.), *Handbook of the sociology of mental health* (pp. 209-224). New York: Kluwer Academic.
- Roy, R., Benenson, J., & Lilly, F. (2000). Beyond intimacy: Conceptualizing sex differences in same-sex relationships. *The Journal of Psychology, 134*, 93-101.
- Roy, R. E., Weibust, K. S., Miller, C. T. (2007). Effects of stereotypes about feminists on feminist self-identification. *Psychology of Women Quarterly, 31*, 146-156.

- Rucas, S. L., Gurven, M., Kaplan, H., Winking, J., Gangestad, S., & Crespo, M. (2006). Female intrasexual competition and reputational effects on attractiveness among the Tsimane of Bolivia. *Evolution and Human Behavior, 27*, 40-52.
- Rupp, L. J. (2001). Is feminism the province of old (or middle-aged) women? *Journal of Women's History, 12*, 164-173.
- Russianoff, P. (1981). *Why do I think I am nothing without a man?* New York: Bantam Books.
- Ryckman, R. M., Hammer, M., Kaczor, L. M., & Gold, J. A. (1990). Construction of a hypercompetitive attitude scale. *Journal of Personality Assessment, 55*, 630-639.
- Ryckman, R. M., Thornton, B., & Butler, J. C. (1994). Personality correlates of the hypercompetitive attitude scale: Validity tests of Horney's theory of neurosis. *Journal of Personality Assessment, 62*, 84-94.
- Sagarin, B. J., & Guadagno, R. E. (2004). Sex differences in the context of extreme jealousy. *Personal Relationships, 11*, 319-328.
- Salovey, P., & Rodin, J. (1986). The differentiation of social-comparison jealousy and romantic jealousy. *Journal of Personality and Social Psychology, 50*, 1100-1112.
- Samter, W., Whaley, B. B., Mortenson, S. T., & Burleson, B. R. (1997). Ethnicity and emotional support in same-sex friendship: A comparison of Asian-Americans, African-Americans, and Euro-Americans. *Personal Relationships, 4*, 413-430.

- Sanchez, D. T., & Kwang, T. (2007). When the relationship becomes her: Revisiting women's body concerns from a relationship contingency perspective. *Psychology of Women Quarterly, 31*, 401-414.
- Santos-Pearson, V. N. (1996). *Cross-cultural differences in styles of negotiation between North Americans (United States) and South Americans (Brazil)*. Unpublished doctoral dissertation. New Mexico State University.
- Sapadin, L. A. (1988). Friendship and gender: Perspectives of professional men and women. *Journal of Social and Personal Relationships, 4*, 365-373.
- Saunders, D. R. (1956). Moderator variables in prediction. *Educational and Psychological Measurement, 16*, 209-222.
- Saunders, K. J., & Kashubeck-West, S. (2006). The relations among feminist identity development, gender-role orientation, and psychological well-being in women. *Psychology of Women Quarterly, 30*, 199-211.
- Schaefer, A. W. (1981). *Women's reality: An emerging female system in the white male society*. Minneapolis: Winston Press.
- Schlee, K. A., Heyman, R. E., O'Leary, K. D. (1998). Group treatment for spouse abuse: Are women with PTSD appropriate partners? *Journal of Family Violence, 13*, 1-20.
- Schultz, K. (1991). Women's adult development: The importance of friendship. *Journal of Independent Social Work, 5*, 19-30.

- Sedikides, C., Oliver, M. B., & Campbell, W. K. (1994). Perceived benefits and costs of romantic relationships for women and men: Implications for exchange theory. *Personal Relationships, 1*, 5-21.
- Shields, V. R., & Coughlin, C. (2000). Performing rodeo queen culture: Competition, athleticism, and excessive feminine masquerade. *Text and Performance Quarterly, 20*, 182-202.
- Siever, M. D. (1994). Sexual orientation and gender as factors in socioculturally acquired vulnerability to body dissatisfaction and eating disorders. *Journal of Consulting and Clinical Psychology, 62*, 252-260.
- Simmons, R. (2002). *Odd girl out: The hidden culture of aggression in girls*. New York: Harcourt, Inc.
- Simoni, J. M., Henley, N. M., & Christie, C. J. (1999). A lesbian feminist subscale for the feminist perspectives scale. *Sex Roles, 41*, 833-850.
- Smither, R. D., & Houston, J. M. (1992). The nature of competitiveness: The Development and validation of the competitiveness index. *Educational and Psychological Measurement, 52*, 407-418.
- Spence, J.T., Helmreich, R., & Stapp, J. (1974). The Personal Attributes Questionnaire: A measure of sex-role stereotypes and masculinity-femininity. *Catalog of Selected Documents in Psychology, 4*, 43-44.
- Sprecher, S., Regan, P. C., McKinney, K., Maxwell, K., & Wazienski, R. (1997). Preferred level of sexual experience in a date or mate: The merger of two methodologies. *The Journal of Sex Research, 34*, 327-337.

- Staines, G., Tavris, C., & Jayaratne, T. E. (1974). The queen bee syndrome. *Psychology Today*, 55-60.
- Stake, J. E., & Gerner, M. A. (1987). The women's studies experience: Personal and professional gains for women and men. *Psychology of Women Quarterly*, 11, 277-284.
- Streigel-Moore, R. H., Siberstein, L. R., Grunberg, N. E., & Rodin, J. (1990). Competing on all fronts: Achievement orientation and disordered eating. *Sex Roles*, 22, 697-702.
- Sue, D. W., & Sue, D. (2003). *Counseling the culturally diverse: Theory and practice*. New York: John Wiley & Sons.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations*. (pp. 38-48). Monterey, CA: Brooks/Cole.
- Talbott, E., Celinksa, D., Simpson, J., & Coe, M. G. (2002). "Somebody else making somebody else fight": Aggression and the social context among urban adolescent girls. *Exceptionality*, 10, 203-220.
- Tannenbaum, L. (2002). *Catfight*. New York: Perennial.
- Tappan, M. B. (2006). Reframing internalized oppression and internalized domination: From the psychological to the sociocultural. *Teachers College Record*, 108, 2115-2144.
- Tashakkori, A., & Thompson, V. D. (1991). Race differences in self-perception and locus of control during adolescence and early adulthood: Methodological

- implications. *Genetic, Social, and General Psychology Monographs*, 11, 133-152.
- Taylor, E. B. (1994). *Women's friendships: Influence of feminism and sexual orientation on caucasian women's friendship patterns and emotional well-being*. Unpublished doctoral dissertation. University of Illinois at Urbana-Champaign.
- Taylor, J. M., Veloria, C. N., & Verba, M. C. (2007). Latina girls: "We're like sisters-most times!" In B. J. R. Leadbeater & N. Way (Eds.), *Urban girls revisited: Building strengths*. (pp. 157-174). New York: New York University Press.
- Tesser, A. (1999) Toward a self-evaluation maintenance model of social behavior. In R. F. Baumeister (Ed.), *The self in social psychology*. (pp. 446-460). New York: Psychology Press.
- Tesser, A., & Campbell, J. (1982). Self-evaluation maintenance and the perception of friends and strangers. *Journal of Personality*, 50, 261-279.
- Thomas, J. J., & Daubman, K. A. (2001). The relationship between friendship quality and self-esteem in adolescent girls and boys. *Sex Roles*, 45, 53-65.
- Thornhill, R., & Palmer, C. T. (2000). *A natural history of rape: Biological bases of sexual coercion*. Cambridge, MA: The MIT Press.
- Tolman, D. L., Impett, E. A., Tracy, A. J., & Michael, A. (2006). Looking good, sounding good: Femininity ideology and adolescent girls' mental health. *Psychology of Women Quarterly*, 30, 85-95.
- Tolson, J. M., & Urberg, K. A. (1993). Similarity between adolescent best friends. *Journal of Adolescent Research*, 8, 274-288.

- Tooke, W., & Camire, L. (1991). Patterns of deception in intersexual and intrasexual mating strategies. *Ethology and Sociobiology*, 12, 345-364.
- Tracy, L. (1991). *The secret between us: Competition among women*. Boston: Little, Brown, & Company.
- Travis, C. B., Meginnis, K. L., & Bardari, K. M. (2000). Beauty, sexuality, and identity: The social control of women. In C. B. Travis & J. W. White (Eds.), *Sexuality, society, and feminism*. (pp.237-272). Washington, DC: American Psychological Association.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506-520.
- Twenge, J. M., & Crocker, J. (2002). Race and self-esteem: Meta-analyses comparing Whites, Blacks, Asians, and American Indians and comment on Gray-Little and Hafdahl (2000). *Psychological Bulletin*, 128, 371-408.
- Underwood, M. K. (2004). Glares of contempt, eye rolls of disgust and turning away to exclude: Non-verbal forms of social aggression among girls. *Feminism and Psychology*, 14, 371-375.
- U.S. Department of Commerce. (2002). *A nation on-line: How Americans are expanding their use of the internet*. Washington, DC: U.S. Government Printing Office.
- Usher, S., & Fels, M. (1985). The challenge of feminism and career for the middle-aged woman. *International Journal of Women's Studies*, 8, 47-57.

- Valentis, M., & Devane, A. (1994). *Female rage: Unlocking its secrets, claiming its power*. New York: Carol Southern Books.
- Van de Vliert, E., & Janssen, O. (2002). Competitive societies are happy if the women are less competitive than the men. *Cross-Cultural Research*, 36, 321-337.
- Vance, J. J., & Richmond, B. O. (1975). Cooperative and competitive behavior as a function of self-esteem. *Psychology in the Schools*, 12, 225-229.
- Veniegas, R. C., & Peplau, L. A. (1997). Power and the quality of same-sex friendships. *Psychology of Women Quarterly*, 21, 279-297.
- Voss, K., Markiewicz, D., & Doyle, A. B. (1999). Friendship, marriage, and self-esteem. *Journal of Social and Personal Relationships*, 16, 103-122.
- Walker, S., Richardson, D. S., & Green, L. R. (2000). Aggression among older adults: The relationship of interaction networks and gender role to direct and indirect responses. *Aggressive Behavior*, 26, 145-154.
- Walters, S., & Crawford, C. B. (1994). The importance of mate attraction for intrasexual competition in men and women. *Ethology and Sociobiology*, 15, 5-30.
- Watson, M. F., & Protinsky, H. O. (1988). Black adolescent identity development: Effects of perceived family structure. *Family Relations*, 37, 288-292.
- Way, N., Cowal, K., Gingold, R., Pahl, K., & Bissessar, N. (2001). Friendship patterns among African American, Asian American and Latino adolescents from low-income families. *Journal of Social and Personal Relationships*, 18, 29-53.

- Webster, J., & Tiggemann, M. (2003). The relationship between women's body satisfaction and self-image across the lifespan: The role of cognitive control. *The Journal of Genetic Psychology, 164*, 241-252.
- Weinstock, J. S., & Bond, L. A. (2000). Conceptions of conflict in close friendships and ways of knowing among young college women: A developmental framework. *Journal of Social and Personal Relationships, 17*, 687-696.
- Weitz, R. (1982). Feminist consciousness raising, self-concept, and depression. *Sex Roles, 8*, 231-241.
- Werner, N. E., & Crick, N. R. (1999). Relational aggression and social-psychological adjustment in a college sample. *Journal of Abnormal Psychology, 108*, 615-623.
- Wettstein, S. W. (1998). *Close friendships of middle-aged women as a function of intimacy and attachment style*. Unpublished doctoral dissertation. University of Pittsburgh.
- Witte, T. H., & Sherman, M. F. (2002). Silencing the self and feminist identity development. *Psychological Reports, 90*, 1075-1083.
- Wolf, N. (1991). *The beauty myth: How images of beauty are used against women*. New York, NY: William Morrow and Company.
- Won-Doornink, M. (1985). Self-disclosure and reciprocity in conversation: A cross-national study. *Social Psychology Quarterly, 48*, 97-107.
- Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin, 106*, 231-248.

- Wright, D. L., Aquilino, W. S., & Supple, A.J. (1998). A comparison of computer-assisted paper-and-pencil self-administered questionnaires in a survey on smoking, alcohol, and drug use. *Public Opinion Quarterly*, *62*, 331-353.
- Yakushko, O. (2007). Do feminist women feel better about their lives? Examining patterns of feminist identity development and women's subjective well-being. *Sex Roles*, *57*, 223-234.
- Yamoto, G. (1990). Something about the subject makes it hard to name. In G. Anzaldúa (Ed.), *Making face, making soul*. (pp. 20-24). San Francisco, CA: Aunt Lute Foundation Books.
- Yang, R., & Blodgett, B. P. (2000). Effects of race and adolescent decision-making on status attainment and self-esteem. *Journal of Ethnic and Cultural Diversity in Social Work*, *9*, 135-153.
- Yvonne (1987). A. M. D. G. revisited. In V. Miner & H. E. Longino (Eds.), *Competition: A Feminist taboo?* (pp. 161-170). New York: The Feminist Press.
- Zarbatany, L., Conley, R., & Pepper, S. (2004). Personality and gender differences in friendship needs and experiences in preadolescence and young adulthood. *International Journal of Behavioral Development*, *28*, 299-310.
- Zeigler-Hill, V. (2007). Contingent self-esteem and race: Implications for the Black self-esteem advantage. *Journal of Black Psychology*, *33*, 51-74.
- Zimny, G. H. (1961). *Method in experimental psychology*. New York: The Ronald Press Company.

Zucker, A. N., & Stewart, A. J. (2007). Growing up and growing older: Feminisim as a context for women's lives. *Psychology of Women Quarterly*, 31, 137-145.

APPENDIX A

Demographics Questionnaire

## DEMOGRAPHIC INFORMATION

Please place a check beside the item that describes you the most or type your answer in the space provided.

1. **Age:** \_\_\_\_\_

2. **Race/Ethnicity:**

\_\_\_\_\_ African / African American / Black, non-Hispanic

\_\_\_\_\_ Asian / Asian American

\_\_\_\_\_ Biracial (describe) \_\_\_\_\_

\_\_\_\_\_ Caucasian / European / White, non-Hispanic

\_\_\_\_\_ Hispanic/Latino/a

\_\_\_\_\_ Native American / Pacific Islander / Eskimo / Aleutian

\_\_\_\_\_ Other (describe) \_\_\_\_\_

3. **Partnership Status:**

\_\_\_\_\_ Single, not in a romantic relationship at present

\_\_\_\_\_ Presently in a romantic relationship

\_\_\_\_\_ Married

\_\_\_\_\_ Separated / Divorced

\_\_\_\_\_ Widowed

4. **Your Occupation:** \_\_\_\_\_

5. **Highest Educational Level Obtained for YOU:**

\_\_\_\_\_ Professional (MA, MS, ME, MD, PhD, LLD)

\_\_\_\_\_ 4-year college graduate (BA, BS, BM)

\_\_\_\_\_ 1-3 years college (& business schools)

\_\_\_\_\_ High school graduate

\_\_\_\_\_ 10-11 years of school (part high school)

\_\_\_\_\_ 7-9 years of school

\_\_\_\_\_ Less than 7 years of school

6. **Sexual Orientation**

\_\_\_\_\_ Heterosexual

\_\_\_\_\_ Lesbian

\_\_\_\_\_ Bisexual

\_\_\_\_\_ Other (Specify: \_\_\_\_\_)

## APPENDIX B

### The Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale

Available in:

Rosenberg, M. (1965). *Society and the adolescent child*. Princeton, NJ: Princeton University Press.

**APPENDIX C**

**Miller Social Intimacy Scale**

## Miller Social Intimacy Scale

Available in:

Miller, R. S., & Lefcourt, H. M. (1982). The assessment of social intimacy. *Journal of Personality Assessment*, 46, 514-518.

**APPENDIX D**

**Feminist Identity Composite Scale**

Feminist Identity Composite Scale

Available by contacting:

Ann R. Fischer, Ph.D.

Department of Psychology

310 Polsky Building

University of Akron

Akron, OH

44325-4301

[ANN10@UAKRON.EDU](mailto:ANN10@UAKRON.EDU)

**APPENDIX E**

**Modified Hostility Toward Women Scale**

## Hostility Toward Women Scale

Available in:

Lonsway, K. A., & Fitzgerald, L. F. (1995). Attitudinal antecedents of rape myth acceptance: A theoretical and empirical reexamination. *Journal of Personality and Social Psychology*, 68, 704-711.

APPENDIX F

The Competition Among Women Scale

For each statement, please choose a number from 1 to 5 indicating the extent to which you agree or disagree with the statement.

Please refer to the following scale as you respond to the statements:

<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Neutral</u>	<u>Agree</u>	<u>Strongly Agree</u>
1	2	3	4	5

- \_\_\_\_\_ 1. Most women compare their own qualities with those of other women to see if they themselves are superior.
- \_\_\_\_\_ 2. Most women are satisfied when a woman they envy gets put in her place.
- \_\_\_\_\_ 3. Most women feel they must compete with other women to find a good romantic partner.
- \_\_\_\_\_ 4. Most women feel that they must be superior to other women in their field in order to get a good job.
- \_\_\_\_\_ 5. Most women are jealous of a woman who looks better than they do.
- \_\_\_\_\_ 6. In social situations most women compare how they look with how other women look.
- \_\_\_\_\_ 7. Most other women enhance their physical appearance (with clothes, make-up, etc.) to look better than other women.
- \_\_\_\_\_ 8. Most women want to be better than other women.
- \_\_\_\_\_ 9. Most women feel that they have an advantage if they look better than other women.
- \_\_\_\_\_ 10. Most women are jealous if another woman becomes more successful in their field.
- \_\_\_\_\_ 11. Most women feel that they need to be more attractive than other women in order to be better than they are.
- \_\_\_\_\_ 12. Most women attack the personal character of another woman if she gets in the way of something they want.
- \_\_\_\_\_ 13. Most women feel they must prove they are better than other women in order to appear successful.

- \_\_\_\_\_ 14. Most women strive to be better than a woman they envy.
- \_\_\_\_\_ 15. Most women gossip about other women's sexual promiscuity so they themselves will appear morally superior.
- \_\_\_\_\_ 16. Most women talk behind other women's backs to make them seem less attractive than they themselves are.
- \_\_\_\_\_ 17. I must prove that I am better than other women in order to appear successful.
- \_\_\_\_\_ 18. To be better than other women, I need to be more attractive than they are.
- \_\_\_\_\_ 19. I enhance my physical appearance (with clothes, make-up, etc.) to look better than other women.
- \_\_\_\_\_ 20. I am satisfied when a woman I envy gets put in her place.
- \_\_\_\_\_ 21. In social situations I compare how I look with how other women look.
- \_\_\_\_\_ 22. I must compete with other women to find a good romantic partner.
- \_\_\_\_\_ 23. I am jealous of a woman who looks better than I do.
- \_\_\_\_\_ 24. I gossip about other women's sexual promiscuity so I will appear morally superior to them.
- \_\_\_\_\_ 25. If I want a good job I must be superior to other women in my field.
- \_\_\_\_\_ 26. I attack the personal character of another woman if she gets in the way of something I want.
- \_\_\_\_\_ 27. I compare my qualities with those of other women to see if I am superior to them.
- \_\_\_\_\_ 28. I strive to be better than a woman I envy.
- \_\_\_\_\_ 29. I have an advantage over other women if I look better.
- \_\_\_\_\_ 30. I am jealous if another woman becomes successful in my field.
- \_\_\_\_\_ 31. I want to be better than other women.
- \_\_\_\_\_ 32. I talk behind other women's backs to make myself look better.

**APPENDIX G**

**Request for Assistance Letter**

Dear \_\_\_\_\_,

My name is Kristin Harris-McDonald, and I am a doctoral student in Counseling Psychology at Texas Woman's University in Denton, Texas. I am currently working on my dissertation, and I would appreciate your assistance.

I am conducting an on-line research study examining the relationship between competition among heterosexual women and several factors, including women's friendship, self-esteem, feminist identity development, and hostility. This research study has been approved by the Texas Woman's University Institutional Review Board. I am hopeful that the results of my research will provide helpful information to mental health professionals and to women. I would be grateful for your assistance in recruiting participants for my research study.

Participants must be heterosexual women who are at least 18 years old. The research study would require a time commitment of 20 minutes and would include participants' completion of several questionnaires. Participation is voluntary. Interested participants should log onto the website listed below. Participants will have the opportunity to enter a drawing for **one of two \$50 Target gift cards**, and I will also send the research results to you and participants via email if desired.

If you are willing to help me, I would appreciate you distributing (e.g., email, listservs, posting to online discussion groups,) the attached "Request for Participation Letter" to potential participants. Please feel free to forward this message to other individuals who may be interested in helping recruit participants or in participating themselves in the research. If you have any questions or concerns, or if you would like a copy of the research results, please feel free to contact me or Debra Mollen, Ph.D., my research advisor, using the contact information below. \*

The website address for the research is: <https://www.psychdata.com/s.asp?SID=125476>

Sincerely,

Kristin Harris-McDonald, M.A.  
Doctoral Student and Principal Investigator  
Texas Woman's University  
Counseling Psychology  
Phone: 940.368.8497  
Email: [kristincharris@yahoo.com](mailto:kristincharris@yahoo.com)

Debra Mollen, Ph.D.  
Assistant Professor/Licensed Psychologist  
Counseling Psychology  
Department of Psychology and Philosophy  
Texas Woman's University  
Phone: 940.898.2317  
Email: [dmollen@mail.twu.edu](mailto:dmollen@mail.twu.edu)

\* There is a potential risk of loss of confidentiality in all email, downloading, and internet transactions.

## APPENDIX H

### Request for Participation Letter

Dear Potential Participant,

My name is Kristin Harris-McDonald, and I am a doctoral student in Counseling Psychology at Texas Woman's University in Denton, Texas. I am currently working on my dissertation, and I would appreciate your help.

If you are a heterosexual woman who is 18 years of age or older, you are invited to participate in an on-line research study examining the relationship between competition among women and several factors, including women's friendship, self-esteem, feminist identity development, and hostility. This study has been approved by the Texas Woman's University Institutional Review Board.

The research study would require a time commitment of 20 minutes and would include the completion of several questionnaires. Participation is completely voluntary. None of your identifying information will be linked to the data collected from the research study. Interested participants should log onto the website listed below. If the hyperlink does not directly take you to the survey, please copy and paste the link into your browser address bar.

Participation and completion of the research study will qualify you to enter a drawing for **one of two \$50 Target gift cards**. I also will also send the research results to you if desired.

Please feel free to forward this message to other individuals who may be interested in helping me with my research. If you have any questions or concerns, or if you would like a copy of the research results, please feel free to contact me or Debra Mollen, Ph.D., my research advisor, using the contact information below. \* Thank you for your consideration and for your time.

The website address for the research is: <https://www.psychdata.com/s.asp?SID=125476>

Sincerely,

Kristin Harris-McDonald, M.A.  
Doctoral Student and Principal Investigator  
Texas Woman's University  
Counseling Psychology  
Phone: 940.368.8497  
Email: [kristincharris@yahoo.com](mailto:kristincharris@yahoo.com)

Debra Mollen, Ph.D.  
Assistant Professor/Licensed Psychologist  
Counseling Psychology  
Department of Psychology and Philosophy  
Texas Woman's University  
Phone: 940.898.2317  
Email: [dmollen@mail.twu.edu](mailto:dmollen@mail.twu.edu)

\* There is a potential risk of loss of confidentiality in all email, downloading, and internet transactions.

**APPENDIX I**

**Blackboard Recruitment Announcement**

- **Want to Earn Course Research Credit?**
- **Want a Chance to Win One of TWO \$50 Gift Cards to Target?**
- **Participants Needed**
  - Heterosexual female research participants at least 18 years old
  - Any participation is voluntary
- **Research Requirements**
  - Complete online survey investigating competition among women
  - Participation will require approximately 20 minutes
- **How to Get Research Credit**
  - After completing the survey, you will be given an automatically generated respondent ID number, which cannot be linked to your survey
  - Bring your respondent ID number during one of the following days and times: Oct. 13 11:30 – 1:00/HDB 301, Oct. 15 1-3:00/CFO 7<sup>th</sup> floor conf. room Oct. 20 11:30-1:00/HDB 301, or Oct. 21 12-2:00/CFO 7<sup>th</sup> floor conference room in order to have your research participation form stamped and signed
- If you are **female, heterosexual**, at least **18 years old**, and interested in participating, please click on [https://www.psychdata.com/\[insert exact address\]](https://www.psychdata.com/[insert exact address])
- If you have any questions or need further information, please contact Kristin Harris-McDonald at 940.368.8497 or [kristincharris@yahoo.com](mailto:kristincharris@yahoo.com). \*

\*There is a potential risk of loss of confidentiality in all email, downloading, and internet transactions.

**APPENDIX J**  
**Informed Consent Screen**

TEXAS WOMAN'S UNIVERSITY

INDIVIDUAL CONSENT TO PARTICIPATE IN RESEARCH

Title: Competition Among Women: Correlates and Protective Factors

Investigator: Kristin Harris-McDonald, M.A. ....(940) 368-8497  
kristinharris@mail.twu.edu

Advisor: Debra Mollen, Ph.D. ....(940) 898-2317  
dmollen@mail.twu.edu

*Explanation and Purpose of the Research*

You are being asked to participate in a research study for Ms. Harris-McDonald's dissertation at Texas Woman's University. The purpose of this research project is to gain a better understanding of how competition among women affects women's lives, specifically by examining the relationship of competition among women with several variables, including friendship intimacy, hostility toward women, feminist identity development, self-esteem, and demographic variables. This study is based on research literature on competition among heterosexual women; therefore only heterosexual women are being recruited.

*Research Procedures*

For this on-line study, you will be asked to complete self-report rating scales measuring competition among women, friendship intimacy, feminist identity development, hostility toward women, self-esteem, and a demographics questionnaire. Your maximum total time commitment for this study is estimated to be 20 minutes.

*Potential Risks*

The foreseeable risks or ill effects associated with participating in this study include loss of time to complete the survey, fatigue while completing the survey, emotional/psychological discomfort at questions being asked, loss of anonymity, and loss of confidentiality.

If you do not have time to complete the questionnaire, you may refuse to participate without penalty. To avoid fatigue, you may take as many breaks as necessary during the questionnaire. However, your internet survey session automatically expires after 20 minutes of inactivity in order to protect the survey's database from security breaches. If your internet survey session expires, you will be unable to return to the survey to complete it. If you want to complete the survey after your internet survey session has expired, you must start the survey from the beginning. However, if you do not complete the survey after your session has expired, or if you do not want to complete the survey at all, there is no penalty.

If you experience psychological/emotional discomfort, you may stop answering the questions at any time. If you feel you need to discuss emotional/psychological discomfort with a professional, you may obtain a referral to a psychologist in your area by calling the American Psychological Association's referral service at 1-800-964-2000.

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

A potential loss of anonymity may result from taking part in this study. You may lose anonymity if you choose to provide an email address that includes your name in order to receive study results or to enter the gift card drawing. However, the researchers will attempt to minimize the loss of anonymity by holding your email address in a secure, separate database from your survey data. Only researchers who enter the correct username and password will be able to access the database, and your information will not be available to anyone not directly involved in this study. Your email address will be deleted completely from the database two to three months after the completion of the study, and researchers will only access your email address from the Psychdata database, so that paper copies of participant email addresses will not be printed. You may also lose anonymity if you are an undergraduate student at Texas Woman's University enrolled in Introduction to Psychology and/or Developmental Psychology and choose to have your extra credit research form stamped and signed by the researchers. The researchers will attempt to minimize the loss of anonymity by having only researchers directly involved in the study sign and stamp your form and by offering multiple dates and times during which the forms can be signed and stamped.

Confidentiality will be protected to the extent that is allowed by law. There is a potential risk of loss of confidentiality in all email, downloading, and internet transactions. However, the internet survey does not require you to report any identifying information. The researchers will not trace your IP address (internet provider address). Although the survey's database does collect IP addresses, it will not disclose your IP address for any reason. This research might be published, but the researcher will not release information that could identify you. Your information will not be available to anyone not directly involved in this study. The survey is administered in a Secure Survey Environment (SSE) and responses are encrypted using Secure Socket Layer (SSL) technology to minimize the risk of data interception by third parties. Once research data are stored on the server, they are held in an isolated database that can only be accessed by researchers with the correct username and password. All data will be deleted from the database two to three months following the completion of the study. Hard copies of data will be stored in a locked file cabinet and destroyed within five years of the completion of the study by shredding paper copies and erasing the USB drive.

### *Participation and Benefits*

Participation in this study is voluntary, and you may discontinue participation at any time without penalty by exiting the web browser. The direct benefit of this study to you is that at the completion of the study you have the opportunity to enter a drawing for one of two \$50 Target gift cards. You also have the opportunity to have a summary of the results e-mailed to you. If you would like to enter the drawing for the Target gift card and/or receive a summary of the results, please type in your email address when prompted to do so at the conclusion of the survey. There will be separate spaces to type in your email address for the drawing and to receive a summary of the results. The researcher will not be able to match your email address with your questionnaire.

If you are an undergraduate student at Texas Woman's University enrolled in Introduction to Psychology and/or Developmental Psychology, another potential benefit to you is the opportunity to earn course credit. Please refer to the recruitment announcement for this study on your TWU Blackboard account regarding procedures for receiving course credit.

*Questions Regarding the Study*

If you have any questions about the research study you should ask the researchers; their phone numbers are at the top of this form. If you have any questions about your rights as a participant in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research and Sponsored Programs at (940) 898-3378 or via e-mail at [IRB@TWU.EDU](mailto:IRB@TWU.EDU). You are welcome to print a copy of this consent form for your records.

If you have read and agree to the above statements, please click on the "Continue" button below to indicate your consent to participate in this study. Thank you for your time.

APPENDIX K

Debriefing Statement for Nonheterosexual Participants

Thank you for your time and for your willingness to participate in this study. However, this study is based on research literature on competition among heterosexual women; therefore only heterosexual women are being recruited.

## APPENDIX L

### Correlation Matrix of Continuous Study Variables

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*Correlation Matrix of Continuous Study Variables*

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Variable	CAW	FSHIP	FEMID	SE	AGE	HTW
CAW	1.00	--	--	--	--	--
FSHIP	.001	1.00	--	--	--	--
FEMID	-.10*	-.025	1.00	--	--	--
SE	-.212*	.118	.017	1.00	--	--
AGE	-.321*	.036	-.073	-.321	1.00	--
HTW	.502*	-.115	-.041	-.220	-.381	1.00

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*Note.* CAW = Competition Among Women; FSHIP = Friendship Intimacy; FEMID = Feminist Identity Development; SE = Self-Esteem; AGE = Age; HTW = Hostility Toward Women.

\* =  $p < .05$