Breaking the Stereotypes: Exploring Traits of Female Athletes

Carrie Magan Warda
Breaking the Stereotypes: Exploring Traits of Female Athletes

by

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A Doctoral Project submitted in partial satisfaction of the requirements for the degree of Doctor of Psychology

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Each person whose signature appears below certifies that this doctoral project in his/her opinion is adequate, in scope and quality, as a dissertation for the degree Doctor of Psychology.

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ABSTRACT OF THE DOCTORAL PROJECT

Breaking the Stereotypes: Exploring Traits of Female Athletes

by

Carrie Magan Warda

Doctor of Psychology, Graduate Program in Psychology
Loma Linda University, September 2003
Dr. Todd Burley, Chairperson

Despite the growing acceptance of women's sports and the increasing number of women and girls who are participating in sports, a number of negative stereotypes still exist concerning female athletes. Because the competitive, masculine nature of sports has been viewed as the antithesis of femininity, women who have actively participated in sports have often been stigmatized as "masculine" (Anthrop & Allison, 1983; Snyder & Kivlin, 1977). Past research has determined that female athletes do tend to possess more masculine personality traits than their non-athletic counterparts (Andre & Holland, 1995; Houseworth, Peplow, & Thirer, 1989; Marsh & Jackson, 1986; Myers & Lips, 1978). These ideas have led to research (Desertrain & Weiss, 1998; Sage & Loudermilk, 1979) examining the concept that female athletes often experience role conflict between their dual (and supposedly contradicting) roles of woman and athlete. The current study looks at the relationship between athletic participation and personality traits, gender role identification and role conflict between roles as female and athlete among young women. Additionally, it focuses on participation in individual, recreational sports including mountain biking, rock climbing, snow boarding, surfing, and wind surfing. Participants are 108 female athletes and non-athletes between the ages of 18 and 30. All participants were administered a questionnaire packet containing a demographic data sheet, the
Extended Personal Attributes Questionnaire (EPAQ) (Spence, Helmreich & Holahan, 1979), and the Athletic Sex Role Conflict Inventory (ASRCI) (Sage & Loudermilk, 1979). The results indicate that female athletes and non-athletes did not differ significantly in their identification with desirable feminine traits. However, non-athletes appear to identify more strongly with non-desirable feminine traits than did athletes in this study. Additionally, female athletes in this study report significantly greater identification with desirable masculine traits and marginally significantly greater identification with undesirable masculine traits. No significant differences were reported on the ASRCI perceived and experienced role conflict scales. However differences were determined on three specific survey items, with athletes reporting greater experienced role conflict related to those items. These findings suggest the image of a female athlete who possesses a combination of powerful traits and a strong sense of self.
Statement of the Problem

The traditional message in our society stresses that desirable qualities for females include passivity, nurturance and dependence while desirable qualities for males include aggressiveness, independence and achievement striving (Sage & Laudermilk, 1979). Recent research (Coats & Overman, 1992; Dobosz & Beaty, 1999; Snyder & Spreitzer, 1992; the President's Council on Physical Fitness and Sports, 1997) has suggested that athletic participation has a number of benefits for women and often contributes to a healthy and successful lifestyle in our society. Increasingly, these researchers are concluding that many of the so-called masculine traits (confidence, drive, determination, decisiveness, self-efficacy and self-discipline, etc.) which female athletes have been found to possess are the same traits that contribute to well being. In addition, female sport participation has been found to have a number of positive influences on physical and mental health including reduced chances of breast cancer and osteoporosis, reduced likelihood of unwanted pregnancy, smoking, alcohol abuse and drug use, reduced chances of depression and suicide attempts, higher levels of confidence, self-esteem and a better body image (the President’s Council on Physical Fitness and Sports, 1997; “Why Sports Participation...,” 2001; “Sport and Teen Pregnancy,” 2001).

The majority of research on female athletes has involved subjects taken from high school and college sports teams. Consequently, typical sports used in research of female athletes include basketball, golf, gymnastics, softball, swimming, tennis, track, and volleyball (Andre & Holland, 1995; Anthrop & Allison, 1983; Desertrain & Weiss, 1988; Giuliano, Popp, & Knight, 2000; Houseworth, Peplow, & Thirer, 1989; Kane, 1988; Marsh & Jackson, 1986; Metheny, 1965; Myers & Lips, 1978; Pedersen & Kono, 1990;
Rintala & Birrell, 1984; Sage & Laudermilk, 1979; Salisbury & Passer, 1982). These sports have been played for many years – perhaps not as many women have participated, or not as publicly, but these activities have been common and popular.

There is a paucity of research investigating some of the more modern sports in which a growing number of women are participating. These include newly popular activities such as snowboarding, mountain biking, rock climbing, windsurfing and surfing. While these sports may not include subduing an opponent by force, bodily contact, or win/lose competition, they are highly strenuous and may not always be congruous with "ladylike" behavior. While the more traditional sports have been helpful in developing theories concerning female athletes and women's sports, we cannot ignore alternative and increasingly popular categories of sports such as snowboarding, mountain biking, surfing, rock climbing, and windsurfing.

In the past, when researchers have looked to study athletes, they have generally studied men (this has been the trend in most areas of research). However, the advancement of women's liberation throughout the 1970's and 1980's has brought with it an increasing interest in women athletes. Over the past 25 years, some researchers have begun to look at various aspects of the female athlete. The most popular and the majority of this research have investigated issues of role conflict and/or the myth of the "masculine" female.
Review of the Literature

Compromised Femininity and Stereotypes

Historically, the stereotype of femininity has meant being passive, weak and dependent. However, the behavioral and psychological demands of competitive sports reinforce what is stereotypically masculine. Psychological characteristics needed to be a successful athlete - strength, competitiveness, aggression, independence, and achievement - are typically associated with traditional masculine stereotypes (Marsh & Jackson, 1986; Snyder & Kivlin, 1977). Through sports, the male pursues, achieves, and accepts prestige and positive social identity. Meanwhile, female athletes encounter opposition as they move into this culturally defined male territory. The opposition towards women who persist and attempt to achieve in sports often results in negative stereotyping by society (Anthrop & Allison, 1983). Consequently, it is possible that the female athlete places her femininity in jeopardy and risks being labeled as male if she makes a serious commitment to sports.

One explanation for the negative evaluation of women athletes is that sport participation is incompatible with the female sex role. A female cannot be both an ideal woman and an ideal athlete because the characteristics that constitute a good athlete are inconsistent with the characteristics that constitute a good woman.

Research conducted with preadolescent children, high school male and female athletes and non-athletes, college male and female athletes and non-athletes, and the general population, has supported the fact that negative stereotyping of female athletes exists in our society (Anthrop & Allison, 1983; Cooley, Roberts & Chipps, 1988; Kane, 1988; Lantz & Schroeder, 1999; Nixon, Maresca & Silverman, 1979; Selby & Lewko,
1976). Anthrop & Allison (1983) have suggested that this stereotyping exists in three forms: a negative stigma is attached to all female athletes but more to those in "masculine" sports, a loss of femininity is perceived as a possible outcome of sport competition, and sport in general is believed to masculinize the female participant.

Males who chose not to participate in sports are often seen as deviant and are labeled in negative terms such as "wimp" or "sissy" and even homosexual (Lantz & Schroeder, 1999). In contrast, female sport participation has largely been viewed as inappropriate and women who participate in sports are often characterized as masculine. Labels such as "dyke" and "lesbian" are commonly used to describe female athletes and refer to the masculinizing effects of participation in competitive sports (Colley, Roberts & Chipps, 1985).

Kane (1988) found that high school females who participated in more "feminine" sports such as tennis and golf, had higher peer status ranking than did participants in more "masculine" sports, such as softball and basketball. Kane's results suggest that what is considered appropriate behavior for female athletes remains influenced by traditional views of gender role identification.

Despite the fact that sports are primarily a male domain, athletic participation for females has changed during the past decade or two. Since then, a number of factors have increased female sport participation: the fitness boom, availability of female role models, the women's movement and Title IX legislation (Pedersen, 1997). In addition, female athletes have more visibility now than ever before, as well as better facilities and improved training and coaching techniques. However, despite these advances, female athletes are still sent mixed messages about the value of their athletic participation.
Categories of Sport

Metheny (1965) has argued that sport involvement is considered either socially acceptable or unacceptable for females based upon how each particular sport conforms to traditional images of appropriate feminine behavior. According to Metheny, sports are considered "sex-inappropriate" if the nature and structure of the sport requires the female to: (1) attempt to subdue the opponent by physical force; (2) use a heavy object; or (3) engage in face-to-face competition where bodily contact may occur. Examples of sex-inappropriate sports for females are football and basketball. In contrast, a sport may be defined as socially sex-appropriate if: (1) the body is projected through space in an aesthetically pleasing way; (2) the resistance of a light object is overcome with a light instrument; or (3) a spatial barrier prevents bodily contact with the opponent. Such sports tend to be individual in nature such as golf, tennis, and swimming. The key to Metheney's (1965) typology is that sports for females are socially sanctioned as long as the nature of that participation does not challenge traditional sex role stereotypes.

A number of studies have provided continued support for Metheny's (1965) categorization of women's sports. Pedersen and Kono (1990) examined the perceived effects of six different sports (basketball, gymnastics, swimming, tennis, track, and volleyball) on the femininity of women participants and found that both male and female raters viewed the participation of women in these sports as enhancing femininity more than distracting from it (with the exception of basketball). However, gymnastics, swimming, and tennis were rated more feminine than volleyball, track, and basketball.

A study conducted by Rintala and Birrell (1984) also supports the theory that certain sports are seen as more appropriate for females than other sports. A content
analysis of 45 issues of *Young Athlete* magazine between 1975 and 1982 revealed that
64% of females were depicted in aesthetic sports, while only 26% were depicted in sports
emphasizing physical contact and high risk.

When looking at adult perceptions of female athletes, Snyder and Spreitzer (1978)
determined that that certain sports — swimming, tennis, golf and gymnastics — were
deemed more appropriate than others — basketball and track. Subjects watched videos of
athletes in action and identified negative traits focusing on physical attributes and the
facial expressions that appeared during the performance of certain sports.

These studies provide support for the division between the groups of sports noted
by Snyder and Kiviin (1975), Salisbury and Passer (1982), Metheny (1965), Anthropol &
Allison (1983) and others lending credibility to the belief that sports that involve light-
weight objects, little use of strength, no body contact, and aesthetically pleasing patterns
of body movement are seen as more feminine and more appropriate for participation by
women.

*Gender Role Identification and Traits*

Gender role identification can be defined as the degree to which people view
themselves as being masculine or feminine. Prior to the 1970’s, the popular view of
gender role identification held that masculinity and femininity were at opposite ends of
the same continuum (Constantinople, 1973). The implication of this assumption is that to
be more feminine a person must necessarily be less masculine (and vice versa). Bem
(1974) challenged this concept by suggesting that masculinity and femininity were
actually separate continuums allowing individuals to simultaneously endorse both
characteristics. In fact, she believed that individuals high on both — androgynes — are
mentally healthier and socially more effective. Theorists who support an androgynous identification assume that being a woman and being an athlete are compatible roles.

Several studies have been undertaken to assess the gender role identifications of individuals involved in sport participation. In general, the findings have revealed that for both male and female athletes, masculinity does not appear to be closely related to type of sport and that competitive female athletes are primarily androgynous, regardless of sport (Andre & Holland, 1995; Giuliano, Popp & Knight, 2000; Lantz & Schroeder, 1999; Uguccioni & Ballantyne, 1980).

Comparing across sports, Caron, Carter and Brightman (1985) reported that male collegiate athletes who participated in team sports (football, basketball, hockey, lacrosse, and soccer) had higher masculinity scores than participants in individual sports (fencing, golf, riflery, swimming, tennis, and track), or non-athletes (who were not significantly different from athletes of individual sports). Houseworth, Peplow and Thirer (1989) theorized that contact sport athletes would possess more masculine sex role identifications because contact sports focus on aggression whereas noncontact sports focus on grace and skill. Contrary to their expectations and to the results of Caron et.al. (1985), Houseworth et.al. found no difference between male college participants in contact sports (football and wrestling) and noncontact sports (tennis and baseball) in sex role identification. In addition, athletes as a group did not rate themselves higher on masculine traits than did non-athletes. Andre and Holland (1995) found that both male and female high school athletes had greater masculine sex role scores than did nonathletes, but female athletes did not differ from nonathletes on femininity. Like Houseworth, et.al., Andre and Holland determined that participation in presumably more
aggressive sports (basketball and softball for females), when compared to participation in less aggressive sports (golf, gymnastics, swimming, tennis, track, and volleyball for females), did not relate to increased masculinity.

 Giuliano, Popp, and Knight's (2000) research supports the increasingly popular idea (Andre & Holland, 1995; Houseworth, Peplow, & Thirer 1989; Marsh & Jackson, 1986; Myers & Lips, 1978) that although female athletes score higher on masculine dimensions of gender-role identity compared to nonathletes, athletes are just as feminine as nonathletes. In other words, although female athletes may be more competitive, aggressive and self-sufficient than are nonathletes, they are no less feminine, affectionate, or nurturing than female nonathletes.

Role Conflict

Despite the substantial gains made by female athletes, the common attitude in our society continues to be that a strain, if not a total incompatibility exists between society's traditional image of femininity and of the athlete (Desertrain & Weiss, 1988; Miller & Levy, 1996). Given this perception, it is not surprising that questions continue to be raised about the potential role conflict that may be experienced by women who, having chosen to participate in the traditionally defined male domain of competitive athletics, must balance the roles of female and of athlete (Anthrop & Allison, 1983; Desertrain & Weiss, 1988; Jackson & Marsh, 1986; Sage & Loudermilk, 1979).

Since sports have traditionally been a male dominated field, and given the masculine stereotype attributed to sports, some researchers have hypothesized that female athletes experience conflict when attempting to integrate their roles as female and athlete. This role conflict is said to exist when a person perceives and/or experiences her role
expectations as incompatible. Sports demand that female athletes address certain issues and behaviors that are not a focus of female gender role appropriateness. The female athlete must step out of her stereotyped gender role, if only temporarily, in order to experience success in sport. In doing so, a female athlete might perceive a conflict between her role as a female and that as an athlete.

According to some researchers, in addition to the potential role conflict that all female athletes may encounter, the degree of role conflict is likely to be related to the sport in which an athlete participates, since acceptability of female participation varies according to the type of sport. "Non-feminine" sports which emphasize strength, bodily contact and endurance have traditionally had low social approval while "feminine" sports which emphasize skill, grace, and beauty have been more socially approved (Metheny, 1965; Snyder & Kivlin, 1975). In addition, researchers (Snyder & Kivlin, 1975) have suggested that female participation in individual sports is more socially acceptable than participation in team sports.

Although some research has shown greater perceived or experienced gender role conflict in female athletes than nonathletes, these levels and differences (when found) are often not very large. Miller and Levy (1996) did not find any significant difference between female athletes and nonathletes in regard to reported amounts of role conflict. Sage and Laudermilk (1979) found that only 20% of college-age female athletes in their study perceived role conflict, and only 20% of those athletes (or 4% of total participants) experienced it to a great or very great extent. Anthrop and Allison (1983) determined that only 16% of their high-school age female athlete subjects reported perceiving role conflict as a great or very great problem, while 11% actually experienced role conflict to
the same extent. Exactly half (50%) of the subjects experienced role conflict as being either no problem or very little problem. Desertrain and Weiss (1988) found that high school female athletes in their study did experience greater levels of role conflict than nonathletes, as well as determining that there was no significant relationship between role conflict and gender role identification. In addition, they determined that role conflict was unrelated to type of sport (team sports vs. individual sports). Overall, levels of perceived and experienced role conflict were low. Consequently, Allison (1991) suggested researchers have perpetuated a stereotype of female athletes experiencing significant gender role conflict when in fact this relationship is rarely observed.

In explaining these findings, Anthrop and Allison (1983) have suggested (1) that the girls and women who experience the greatest role conflict may drop out of competitive athletics, (2) that there have been changes in attitudes toward female athletes in the post Title IX era, and/or (3) that there exists a distinction between internal role conflict (self-perceptions of one’s personal worth) and external role conflict (pressures imposed on an individual by outside sources). Others (Miller & Levy, 1996) have suggested that female athletes customize their self-concepts by valuing particular aspects of self-concept over others. Thus, female athletes may use positive self-concepts related to athletic participation (e.g., physical appearance, athletic competence, and body image) to discount gender role conflict.

With the rapid increase in sporting opportunities for females and visibility of female participation as an appropriate activity, it is possible that societal support is also increasing to a point where the topic of role conflict is no longer relevant to today’s athletes. With increased acceptance, feelings of conflict could be reduced. Sage and
Loudermilk (1979) speculated that any role conflict among female athletes will only exist as long as society supports the stereotype of female role-appropriate behavior in conflict with sport participation.

**Benefits of Athletic Participation**

The value of sport participation for females is undeniable. In 1997, the President's Council on Physical Fitness and Sports issued a report confirming that sports have innumerable benefits for the girls and women who play them. This report includes numerous examples of the benefits of sports for females including physical (e.g., lower risks of obesity, heart disease, osteoporosis, breast cancer and other chronic diseases), psychological (e.g., higher self-esteem, better body image, enhanced sense of competence and control, as well as reduced stress, depression and suicide attempts), and academic (e.g., better grades, higher standardized test scores, lower risk of dropping out).

A comprehensive study of high school students (the Youth Risk Behavior Survey of the Centers for Disease Control and Prevention, 1997) concluded that female athletes were less likely than their non-athletic peers to get pregnant (5% vs. 11%, respectively), more likely to be virgins (54% of female athletes reported never having sex vs. 41% of non-athletes), had fewer sexual partners, and were more likely to use contraceptives (87% vs. 53%). Based on these results, the Women's Sport Foundation (2001) has suggested that sports may be used as a strategy in programs intended to reduce teen pregnancy.

Dobosz and Beaty (1999) investigated the relationship between sports and leadership (defined by decisiveness, determination, interpersonal and organizational aptitude, loyalty, self-efficacy, and self-discipline) and determined that female high school athletes demonstrated significantly greater leadership ability than their non-
athletic peers. In addition, female athletes showed greater leadership ability than did male athletes. This supports Snyder and Spreitzer's (1992) conclusion that athletic participation appears to increase the potential ability for leadership. Other studies also support the possibility that athletics offer young women, as well as young men, the chance to improve leadership ability by indicating that both male and female college level athletes have significantly higher levels of self-esteem in conjunction with leadership (Ryan, 1989; Pascarella & Smart, 1991).

Coats and Overman (1992) examined the childhood play styles of women in traditional occupations (e.g., school teachers or librarians), moderately nontraditional occupations (e.g., insurance agents or real estate agents), and highly nontraditional occupations (e.g., lawyers or physicians). They found that women in nontraditional occupations were, as children, more likely to have played with boys and to have engaged in more competitive, male activities (primarily sports) than were women in traditional occupations. Coats and Overman (1992) suggest that these nontraditional women were socialized into their occupations through the male activities in which they participated as children. These conclusions are supported by the Women's Sports Foundation (2001), who found that 80% of female executives at Fortune 500 companies identified themselves as former athletes and "tomboys".

Statement of the Problem and Hypotheses

The benefit of sports for females is well documented. As research continues to reveal information about female athletes of all categories of sport, we can learn even more about the benefits of athletics for females and continue to deconstruct the myths and negative stereotypes concerning these women.
This study examined personality traits of female athletes who participate in individual, recreational, high impact sports such as snowboarding, mountain biking, surfing and rock climbing. These sports are unusual because they are not generally used in athletic research. Specifically, this study examined female athletes and non-athletes to determine any correlation between specific personality traits and participation in these sports as well as any correlation between sport participation and gender role identification. In addition, these athletes were studied to identify whether or not (and to what extent) role conflict exists between the roles of female and athlete.

This study is important and necessary in understanding the potential of female athletic involvement. This research may then lead to the answers of questions such as: Is participation in a sport identified with specific traits? Which comes first, the trait or the sport participation? Does sport participation affect the trait? Ultimately, this information may influence the way women's sports and female athletes are viewed in our society. By discovering who is participating in these sports and what these women are like, we can then identify any potential psychological benefits associated with their sport participation.

While previous research (Andre & Holland, 1995; Houseworth, Peplow, & Thirer, 1989; Marsh & Jackson, 1986; and Myers & Lips, 1978) has investigated gender traits and role conflict among female athletes of a variety of sports, these studies have tended to concentrate primarily on sports found on high school campuses (i.e., swimming, golf, tennis, softball, basketball, volleyball, etc.). Most of these sports fall easily into Metheny's (1967) categories of appropriateness for females. The current study differs in that it will examine female athletes involved in sports that are more difficult to categorize.
and are not generally found on high school campuses. These sports are individual (as opposed to team sports), recreational, do not involve face-to-face competition, and emphasize skill and grace in movement. However, these sports also require large amounts of strength, endurance, and exertion. Activities in this category include snow boarding, mountain biking, rock climbing, surfing and windsurfing. These sports are quickly gaining popularity in both recreational and professional realms, and a growing number of young women can be found participating in these activities.

This study aims to investigate the gender traits and role conflict of the women who participate in these modern individual, recreational sports.

The hypotheses are as follows:

1. It was expected that females identified as athletes in this study (like those in Andre & Holland, 1995; Houseworth, Peplow, & Thirer, 1989; Marsh & Jackson, 1986; and Myers & Lips, 1978) would share equal identification with the feminine gender role as measured by the Extended Personal Attributes Questionnaire (EPAQ) (Spence, et al., 1979).

2. It was expected that females identified as athletes would have greater identification with the masculine gender role than non-athletes as measured by the Extended Personal Attributes Questionnaire (EPAQ) (Spence, et al., 1979).

3. It was expected that sport participation would be positively correlated with identification with positive "masculine" personality traits such as confidence, independence, and decision making, would identification as active (vs. passive) and not having the tendency to give in easily as measured by the Extended Personal Attributes Questionnaire (EPAQ) (Spence, et al., 1979).
4A. Athleticism would not correlate significantly with *perceived* role conflict as measured by the Athletic Sex Role Conflict Inventory (Sage & Loudermilk, 1979).

4B. Athleticism would not correlate significantly with *experienced* role conflict as measured by the Athletic Sex Role Conflict Inventory (Sage & Loudermilk, 1979).

It is anticipated that the information gathered from this study will help in adding to the growing amount of information helping to increase understanding of the value of sport participation for women. This research and others like it may ultimately aid in further reducing negative stereotypes concerning female athletes and encouraging parents, schools and communities in their support of women and girls' sport programs.
Method

Participants

Participants in this study were females ages 18 through 30 who reside in California. Participants were recruited primarily from a university campus as well as an athletic teaching facility in order to ensure a subject pool including an adequate number of extreme athletes. This was a sample of convenience and appropriate to the purpose of the study. Participation was anonymous and voluntary. No participants were excluded due to ethnic, religious, sexual orientation, economic background or other diversities.

Although there were a total of 120 participants in this study, 12 of those participants were over the age of 30 and were dropped from the analysis (due in part to anticipated generation differences regarding gender roles and expectations), resulting in a total of 108 participant data sets utilized for the analysis. The mean age of the reduced sample was 24.71 (SD = 3.42). The racial distribution was 8.3% African American, 7.4% Asian, 72.2% Caucasian, 8.3% Latina, and 3.7% "other" (see Table 1). Ninety-nine percent of the participants were heterosexual, and 1% was gay/lesbian (see Table 2). The educational distribution was 8.3% high school graduate only, 23.1% had attended some college, 43.5% were college graduates, and 25% had attended some graduate school (see Table 3). Participant income was distributed as follows: 11.1% earned less than $10,000 per year, 23.1% earned $10,000 to $25,000 per year, 39.8% earned $26,000 to $40,000 per year, 18.5% earned $41,000 to $60,000 per year, 4.6% earned $61,000 to $85,000 per year, and 2.8% earned over $85,000 per year (see Table 4). It is noteworthy that this sample reported higher educational background and higher income than the average of the general population. This may be in part due to the expenses involved in participation.
Table 1

Distribution of Sample by Ethnicity

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<tr>
<th>Ethnicity</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Caucasian</td>
<td>72.2%</td>
</tr>
<tr>
<td>African-American</td>
<td>8.3%</td>
</tr>
<tr>
<td>Latina</td>
<td>8.3%</td>
</tr>
<tr>
<td>Other</td>
<td>3.7%</td>
</tr>
<tr>
<td>Asian</td>
<td>7.4%</td>
</tr>
</tbody>
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Table 2

Distribution of Sample by Sexual Orientation

<table>
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<tr>
<th>Sexual Orientation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual</td>
<td>99.1%</td>
</tr>
<tr>
<td>Gay/Lesbian</td>
<td>0.9%</td>
</tr>
</tbody>
</table>
in these sports as well as the locations participants were recruited from such as a university campus.

Table 3

*Distribution of Sample by Education*

- Some College: 23.1%
- High School Graduate: 8.3%
- College Graduate: 43.5%
- Some Graduate School: 25.0%

Table 4

*Distribution of Sample by Annual Income*

- $10,000 to $25,000: 23.1%
- Less than $10,000: 11.11%
- More than $85,000: 2.80%
- $61,000 to $85,000: 4.60%
- $26,000 to $40,000: 39.84%
- $41,000 to $60,000: 18.52%
According to self-report of frequency of sport participation, participants were classified into groups of "athlete" or "non-athlete". In order to categorize the participants, responses regarding frequency of participation in mountain biking, rock climbing, snowboarding, surfing, and wind surfing were totaled. Participants whose responses to these items totaled eight or greater were classified as athletes (see Appendix B).

Measures

The instruments used in this study include the Extended Personal Attributes Questionnaire (EPAQ) (Spence, Helmreich & Holahan, 1979), and the Athletic Sex Role Conflict Inventory (Sage & Loudermilk, 1979).

The EPAQ builds on the original 24-item Personal Attributes Questionnaire (Spence, et al., 1979). It combines the original items measuring socially desirable agentic traits (positive traits believed to be primarily masculine), expressive and communal traits (positive traits believed to be primarily feminine), and bipolar traits (traits in which the ideal man would be at one end of the pole and the ideal woman would be at the opposite end of the pole with respect to that trait) with scales measuring unmitigated agency (negative masculine traits), unmitigated communion, and verbal-passive aggressiveness (negative feminine traits). Items were selected because they were equally desirable or undesirable for men and women to possess and were stereotypically associated with one sex more than the other. Each item is scored on a 5-point scale and participants are asked to determine the extent to which each item is descriptive of themselves. Tests of internal consistency found the three scales to be reliable (Desertrain & Weiss, 1988). Helmreich, Spence and Wilhelm (1981) reported adequate levels of internal consistency for all
EPAQ scales with the exceptions of the bipolar and verbal passive aggressiveness scales, and found evidence that the factor structure is highly consistent in both sexes. Because the content of the bipolar scales are unrelated to the goals of this study, data from this scale will not be used. Chronbach alphas for a sample of college students given the M (masculine) and F (feminine) scales were .85 and .82 respectively (Spence & Helmreich, 1978).

The Athletic Sex Role Conflict Inventory (Sage & Loudermild, 1979) was designed to assess perceived and experienced role conflicts of the subjects in enacting their roles as females and female athletes. This inventory consists of 20 items divided into two parts. The first part is designed to measure perceived role conflict and the second part is designed to measure role conflict actually experienced (the same 10 questions are used in each of the two sections). The areas of potential conflict include: a general attitude of society toward females and athletic participation, physical appearance and skills of the female which may seem incompatible with athletic participation, the incompatibility of expectations of parents and others regarding sex roles and the athletic role, and stereotyped female nonphysical characteristics which may conflict with the desirable traits of the competitive athlete. Subjects are asked to respond to each item on a 5-point scale ranging from “No problem” (1) to “A very great problem” (5). In the perceived role conflict section the subjects are asked to respond to each item in terms of their perception that this is a role conflict problem. The second 10 items consist of a repeat of the first 10 items, but the subjects are asked to respond in terms of their actual experience in encountering these items as role conflict problems.
Sage and Loudermilk (1979) reported internal consistency of this questionnaire by computing intercorrelations for each item, and 41 of the 45 correlations were significantly positively related at the .05 level for the 10 role conflict perceived items, and all 45 correlations for the 10 role conflict experienced items. Test-retest reliabilities for the different parts (perceived and experienced role conflict) were reported as a Pearson correlation coefficient of .72 and .76, respectively (Anthrop & Allison, 1983, Sage & Loudermilk, 1979). Construct validation was obtained using two techniques. Item scores were correlated with total scores, and through a modification of the “known groups method.” Mean item correlation with the total score was above .60 with a range of .50-.70.

Procedure

All participants were given the questionnaire packet, including 1) the informed consent, 2) a demographic data sheet, 3) the Extended Personal Attributes Questionnaire (EPAQ), and 5) the Athletic Sex Role Conflict Inventory (see Appendix A, B, C, and D for complete proofs). Participants were recruited over a one-year span across various settings. There was no time limit placed on completion of the packet. Prior to administration, each participant was informed by the researcher of the confidential, anonymous, and voluntary nature of the study. All participants were thanked for their voluntary participation and provided with information on how to obtain the results of the study.
Results

After screening the data, it was determined that:

Approximately half (n = 52) of the participants considered themselves to be athletes (measured by a positive response to the demographic data sheet question “Do you consider yourself to be an athlete?”), while the other half (n=55) did not. Likewise, 53 of the participants reported that they exercise regularly and 54 participants reported that they do not (one participant did not respond to either of those items). Although this self-report measure asking participants whether or not they considered themselves athletes was included in the demographic data sheet, it was not used in this study due to the bifurcation of participant data. It is significant to note, however, that approximately fourteen participants did not identify themselves as athletes, yet reported sport participation of a great enough frequency to qualify them as athletes under the definition set for the current study.

Of the participants, 46.3% reported that they mountain bike at least once per year, 40.7% reported that they rock climb at least once per year, 38% reported that they snowboard at least once per year, 19.4% reported that they surf at least once per year, and 6.3% reported that they windsurf at least once per year. Additionally, 25% of participants choose to write in other sports they participate in (see Table 5). Frequent responses included backpacking, kayaking, road biking, running, swimming, and walking. A total of 63% of the participants (n = 68) were classified as “athletes” according to their overall sport participation (reported minimum participation in one sport 4-10 times per year, or three sports 1-3 times per year), while 37% of the participants (n = 40) were classified as “non-athletes”. 
Table 5

Breakdown of Reported Sport Participation of Subjects

<table>
<thead>
<tr>
<th>Type of Sport</th>
<th>Percentage of Subjects Reporting Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain Bike</td>
<td>46.30%</td>
</tr>
<tr>
<td>Rock Climb</td>
<td>40.70%</td>
</tr>
<tr>
<td>Snowboard</td>
<td>38%</td>
</tr>
<tr>
<td>Surf</td>
<td>19.40%</td>
</tr>
<tr>
<td>Windsurf</td>
<td>6.30%</td>
</tr>
<tr>
<td>Other</td>
<td>25%</td>
</tr>
</tbody>
</table>

Upon inspection of the data, it appears that participants tended to be either highly involved in sport activities or very minimally involved, with few participants reporting a low-to-medium frequency of participation. Additionally, those who reported participation in one sport tended to also report involvement in additionally sport activities. In other words, participants are either involved in sports or they aren’t. It is also reasonable to assume that many athletes tend to participate in a number of different sport or athletic activities, including activities not examined in this study. For these reasons, it was determined that distribution of data could be dichotomized and compared in grouping variables of “athlete” and “non-athlete” as opposed to examining data in terms of frequency of sport participation.
Hypothesis I

The data for the first three hypotheses were analyzed using independent t-tests and Pearson's Correlations. Simple correlations revealed a significant association between females' athlete status and their self-reported levels of masculine and feminine personality traits.

As stated in Hypotheses I, it was expected that all females in this study, regardless of sport participation, would share equal identification with the feminine gender role as measured by the Extended Personal Attributes Questionnaire (EPAQ) (Spence, et al., 1979). Contrary to this hypothesis, a significant difference was found between athletes and non-athletes in identification with feminine traits as a whole (t = 3.214, df = 106, p < .01; r = -.298, p < .01) (see Table 6). That is, non-athletes reported greater identification with feminine traits. However, further analysis revealed no significant difference between athletes and non-athletes on identification with desirable female traits (as measured by the "desirable feminine traits" subscale of the EPAQ which includes traits such as gentleness, helpfulness, warmth, and understanding) (t = .956, df = 106, ns; r = -.092, ns). Significant variance was demonstrated in identification with undesirable female traits (as measured by the "undesirable/passive-aggressive traits" and "undesirable/communion-like traits" subscales of the EPAQ which include traits such as whining, complaining, nagging, gullible, and spineless). As seen in Table 6, female athletes in this study saw themselves as less passive aggressive (t = 2.643, df = 106, p < .01; r = -.249, p < .01) and less communion-like (t = 3.510 df = 106, p < .001; r = -.323, p < .01) than non-athletes. To summarize, while female athletes and non-athletes reported equal identification with positive female traits, non-athletes reported greater
identification than athletes with undesirable female traits as a whole ($t = 3.580, df = 106, p < .001; r = -.328, p < .01$).

Table 6

Identification With Female Traits

<table>
<thead>
<tr>
<th>EPAQ Scale</th>
<th>Athlete</th>
<th>Non-Athlete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Feminine Score</td>
<td>33.99</td>
<td>37.15</td>
</tr>
<tr>
<td>Desirable Feminine Traits</td>
<td>25.53</td>
<td>26.18</td>
</tr>
<tr>
<td>Total Undesirable Feminine Traits</td>
<td>8.46</td>
<td>10.98</td>
</tr>
<tr>
<td>Undesirable/Passive-Aggressive</td>
<td>4.97</td>
<td>6.25</td>
</tr>
<tr>
<td>Undesirable/Communion-Like Traits</td>
<td>3.49</td>
<td>4.73</td>
</tr>
</tbody>
</table>

While these results do not fully support the hypothesis, they revealed an important differentiation between desirable and undesirable female trait identification.

Hypothesis II

As stated in Hypothesis II, it was expected that female athletes would have greater identification with the masculine gender role than would non-athletes as measured by the Extended Personal Attributes Questionnaire (EPAQ) (Spence, et al., 1979).

As hypothesized, correlations among athletic participation and identification with masculine gender traits suggest a significant relationship. Non-athletes reported less identification with masculine traits as a whole than did athletes ($t = -5.523, df = 106, p < .001; r = .471, p < .01$) (see Table 7).
Hypothesis III

It was expected that athleticism would be associated with identification with positive "masculine" personality traits such as confidence, independence, and decision making, and would identify themselves as active (vs. passive) and not having the tendency to give in easily as measured by the Extended Personal Attributes Questionnaire (EPAQ) (Spence, et al., 1979). Significant differences were determined between athlete and non-athlete participants in desirable masculine traits including confidence, independence, decision-making ability, active (versus passive), not giving up easily, and standing up well under pressure \( t = -5.834, df = 106, p < .001; r = .493, p < .01 \).

Moderately significant relationships were revealed between athletes and non-athletes and undesirable masculine traits (e.g. arrogance, egotistical, dictatorial, greedy, cynical, hostile) \( t = -2.369, df = 106, p < .05; r = .224, p < .01 \).

Table 7

Identification With Masculine Traits

<table>
<thead>
<tr>
<th>EPAQ Scale</th>
<th>Athlete</th>
<th>Non-Athlete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Masculine Score</td>
<td>Mean 35.01, SD 6.94</td>
<td>Mean 27.70, SD 6.10</td>
</tr>
<tr>
<td>Desirable Masculine Traits</td>
<td>Mean 23.60, SD 4.48</td>
<td>Mean 18.28, SD 4.76</td>
</tr>
<tr>
<td>Undesirable Masculine Traits</td>
<td>Mean 11.41, SD 4.58</td>
<td>Mean 9.43, SD 3.49</td>
</tr>
</tbody>
</table>
Hypothesis IV

Hypothesis IV predicted that athletic participation would not correlate significantly with either perceived or experienced role conflict as measured by the Athletic Sex Role Conflict Inventory (Sage & Loudermilk, 1979). T-tests and correlations were computed to determine the degree in which sport participation and role conflict (both perceived and experienced) are related. As predicted, the statistical analysis indicates no significant relationship between athletes and non-athletes on the perception of role conflict between roles of female and of athlete. Additionally, no significant relationship was found between athletes and non-athletes on full-scale scores regarding the experience of role conflict. However, an association was revealed between athletes and experienced role conflict on three individual items of the Athletic Sex Role Inventory. As seen in Table 8, these items include Item 1, “Because American society traditionally places little value on girls’ participation in sports, the female athlete receives little recognition for her skills and accomplishments.” ($t = -3.359, df = 105, p < .001; r = .282, p < .01$); Item 3, “Girls are expected to lose consistently to boys when competing with them, but athletes should strive to win over all opponents.” ($t = -3.006, df = 105, p < .003; r = .281, p < .01$); and Item 5, “Because our society typically feels that sports are for men, the woman athlete must risk the female ‘jock’ image when she participates in sports.” ($t = -3.594, df = 103, p < .001; r = .303, p < .01$).
Table 8

*Experienced Role Conflict*

<table>
<thead>
<tr>
<th>Experienced Role Conflict</th>
<th>Athlete</th>
<th>Non-Athlete</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Item 1</td>
<td>0.81</td>
<td>0.91</td>
</tr>
<tr>
<td>Item 3</td>
<td>0.85</td>
<td>0.84</td>
</tr>
<tr>
<td>Item 5</td>
<td>0.75</td>
<td>0.85</td>
</tr>
</tbody>
</table>
Discussion

The major purpose of this study was to examine the interrelationships among role conflict, gender role orientation, and female sport participation. It was hypothesized that:

1) All females, athletes and non-athletes, in this study would share equal identification with the feminine gender role; 2) Females athletes would have greater identification with the masculine gender role than non-athletes; 3) Female athletes would have greater identification with specific desirable masculine traits such as confidence, independence, and decision making skills than non-athletes; and 4) Athleticism would not correlate significantly with either (A) perceived or (B) experienced role conflict.

In general, the results support two of the hypotheses and partially support the remaining two hypotheses. Specifically, hypotheses two and three were supported in that female athletes reported greater identification with masculine traits and, more specifically, positive masculine traits than did non-athletes. Hypothesis one was partially supported in that while non-athletes reported greater identification with feminine traits overall than athletes, there was no significant difference when looking at the desirable female traits only. Finally, hypothesis four was partially supported in that athletes reported more experienced role conflict than non-athletes, but levels of perceived role conflict were the same. Thus, females who reported athletic participation in snowboarding, mountain biking, rock climbing, surfing, and wind surfing were more likely to experience an actual conflict between their roles as female and athlete than females who were not involved in sport.

The present results are generally consistent with predictions based on previous research examining aspects of gender role identification and athletic participation (Andre
While a significant difference was determined between athletes and non-athletes on identification with feminine traits overall, there were no significant differences in identification of athletes and non-athletes on desirable feminine traits such as warmth, understanding, emotionality, gentleness, helpfulness, and kindness. What was not predicted was a difference between athletes and non-athletes on traits that are typically negatively valued (Verbal Passive-Aggressive Scale and Communion-Like Traits Scale). These include whining, complaining, nagging, gullibility, and spinelessness. While this finding was not predicted, it supports the overall theme of this study that athletic participation is related to positive or desirable traits in females. In essence, while it appears to be true that athletic participation is incompatible with some typically feminine traits, it is not true that a woman cannot be a good athlete and a "good woman". In fact, the athlete may become the ideal woman because she appears to be holding on to the positive feminine traits and rejecting negative traits.

In line with predictions, female athletes rated themselves as significantly more masculine than non-athletes. While female athletes reported moderately significant differences in their identification with undesirable masculine characteristics including arrogance, greed, cynicism, and hostility, they also reported significantly more positive self-concepts ("desirable masculine traits") including confidence, independence, decision-making ability, active (versus passive), not giving up easily, and standing up well under pressure. These positive traits are likely to help female athletes negotiate their way through life's challenges more successfully. When coupled with the positive feminine trait identification reported by athletes in this study, a picture of a caring,
nurturing, confident female with a strong sense of self emerges. However, it is important to note the potential negative impact of the undesirable masculine traits in female athletes.

Female athletes are challenging the stereotypes of what it means to be a woman and what it means to be an athlete. They do not fit the common stereotypes that our society has attributed to these roles. Female athletes are not passive, weak, or dependant as the historical female stereotype dictates they should be. Nor are they aggressive, overly masculine, and lacking femininity as historical stereotypes of female athletes suggest. Rather, they appear to be able to meld the best of both roles - they identify with the positive, understanding, kind, helpful traditionally feminine traits as well as the strength-based, confident, independent, traditionally masculine traits. These findings appear to support Snyder and Spreitzer’s (1992) research suggesting that female high school athletes demonstrated greater leadership ability than did non-athletic peers as well as male athletes. Together these studies may suggest that female athletes have a unique combination of traits which lead to strong leadership abilities. Not only do they possess traditional leadership qualities such as standing up under pressure and good decision-making skills, they possess nurturing, understanding qualities which give them the unique ability to lead with confidence and compassion. Female athletes appear to possess a powerful combination of masculine and feminine personality traits, without sacrificing femininity, and are able to integrate these traits in a way that supports leadership. These findings are significant for the support of women in positions of leadership in the business world. Companies and organizations searching for strong leadership would do well to consider the strengths associated with female athletes. It may even be appropriate
to ask about sport participation in interviewing potential employees for positions of leadership.

The individual, recreational sports focused on in this study were chosen because of their recent popularity, their inability to fit neatly into either “feminine” or “non-feminine” sport categories (Metheny, 1965, Snyder & Kivlin, 1975), as well as the paucity of research investigating these types of sport activities. Snowboarding, mountain biking, surfing, rock climbing, and wind surfing can be classified as individual, recreational, non-contact, non-competitive sports. These sports emphasize graceful movement and do not involve bodily contact with an opponent as many “non-feminine” sports do. However, they are highly strenuous, require significant exertion and strength and may not always be congruous with “ladylike” behavior.

The traits determined to correlate with sport participation in this study support the findings of earlier studies focusing on other sport activities (both team and individual, “feminine” and “non-feminine”) suggesting that female athletes are primarily androgynous (Andre & Holland, 1995; Guiliano, Popp, & Knight, 2000; Houseworth, Peplow, & Thirer 1989; Marsh & Jackson, 1986; Myers & Lips, 1978). This finding has important implications regarding the expansive opportunities available to women and girls with varying athletic interest. It appears that the benefits of sport participation are the same regardless of the type of sport chosen. Females who participate in any sport, from gymnastics to basketball to mountain biking, can benefit from the self-confidence, leadership, and other strength-based traits associated with athletic participation without sacrificing their femininity.
As noted above, athletes reported significantly more experienced role conflict than did non-athletes. Perceptions of role conflict between athletes and nonathletes, however, were similar. This suggests that while athletes and non-athletes in this study report equal recognition of the issues related to conflict between the roles of female and athlete, the athletes reported that they have personally experienced more problems with this conflict than non-athletes. Notably, levels of both perceived and experienced role conflict were low for both groups. Thus, perceived role conflict appears to be little problem for the females in this study, whether athletes or not.

It is notable that the majority of experienced role conflict reported in this study can be categorized as external role conflict (Anthrop & Allison, 1983). External conflict is imposed on the female athlete by outside sources, such as lack of support and recognition for female skills and accomplishments. This lack of support could include the media, school, peers, or the community. A particular problem is faced in expectations regarding male peers. For example, one of the items endorsed as an experienced problem for athletes in this study was, “Girls are expected to lose consistently to boys when competing with them, but athletes should strive to win over all opponents.” Another external conflict item endorsed as an experienced problem was, “Because American society traditionally places little value on girls’ participation in sports, the female athlete receives little recognition for her skills and accomplishments.”

While some researchers (Snyder & Kivlin, 1975) have suggested that the degree of experienced role conflict is associated with the type of sport participated in, more recent research has suggested that role conflict experienced by female athletes is minimal regardless of the type of sport (Allison, 1991; Anthrop & Allison, 1983; Desertrain &
Weiss, 1988; Miller & Levy, 1996; Sage & Laudermilk, 1979). The current study appears to support these latter findings. While the sports focused on in this study possess many "non-feminine" qualities, the athletes did not report significant perceived or experienced role conflict. Additionally, this research helps support the idea that participation in any type of sport can be beneficial to females. There does not appear to be a significant difference in role conflict across sports, whether individual or team, "feminine" or "non-feminine".

There are several possible explanations for the low levels of perceived role conflict perceived and experienced. Researchers have found that female athletes tend to have a positive self-concept (Snyder & Kivlin, 1975; Snyder & Spreitzer, 1976), which may override reservations regarding negative stereotypes of female athletes. Female athletes may see sport participation as enhancing femininity and broadening opportunity for social approval rather than creating conflict.

Additionally, sport participation for women appears to be gaining social acceptance as there is an increase in media attention to women's sports and athletic role models. For example, WNBA basketball games are often televised on major networks and female athletes are obtaining more advertising endorsements and can be seen in television commercials and magazine advertisements. More specifically to the sports investigated in this study, women's snowboarding competitions are often televised along with men's competitions and movies like "Blue Crush" reflect and support the popularity of women's surfing.

Finally, Title IX legislation has helped to support and improve women's sports programs and normalize female athletic participation. Young girls are now given the
opportunity to involve themselves in sport participation during crucial developmental periods and are able to take advantage of greater role flexibility available to them. With increased acceptance, feelings of conflict could be reduced.

The current study has several limitations. Foremost, the data was obtained through self-report questionnaires, a method which may introduce response bias. Secondly, while the purpose of this study was to focus on athletes who participate in the individual, recreational sports chosen, it was determined through the responses provided on the demographic data sheet that many of these athletes also participate in a variety of other sports. Therefore, it is not possible to isolate the findings to the sport activities focused on in this study. However, the results tend to support those of other studies focusing on a variety of athletic activities (Andre & Holland, 1995; Anthrop & Allison, 1983; Giuliano, Popp, & Knight, 2000; Houseworth, Peplow, & Thirer 1989; Marsh & Jackson, 1986; Myers & Lips, 1978), suggesting that individual, recreational sports may be added to the growing list of beneficial athletic activities for females.

The results of this study appear to have important implications. These findings give hope to advocates for female sport opportunities as well as for participants. If role conflict is perceived as less of a problem, more women and girls might be more inclined to participate in sport activities. Likewise, rapidly increasing sports opportunities for females may increase the acceptance and recognition of women’s sports and decrease the issue of role conflict. The benefits of sport participation for women are numerous. In addition to the well-known health benefits, athletic participation appears to foster leadership skills and strong self-concept in females. Parents, educators, and policy-makers must advocate for continued and expanding athletic opportunities for women and
girls and support this avenue of growth. Extra-curricular athletic programs for young women will not only train their bodies for physical fitness, but appears to influence identity formation and personalities as well.

It is intended that this research will lead to future research further investigating the benefits of women's sports as well as attempting to determine a causal relationship rather than correlation between sport participation and specific positive personality traits. For example, are females with leadership skills and other positive traits drawn to participate in sports? Or are these traits and skills a direct result of their sport participation.

Another important area of future research focuses on the development of self-concept in female athletes. It is possible that adolescent girls who participate in sports develop a self-concept based on what their body can do rather than how their body looks. Investigation into this topic could help explain some of the benefits of sports for adolescent girls, particularly those findings related to early sexual behavior and pregnancy. This hypothesis implies a more secure sense of self and inner strength which does not rely on male approval for fulfillment. Such findings could be used to support and further develop sports programs intended to reduce teen pregnancy in high-risk populations. Additional information regarding female athletes and sport participation can only help further normalize and support this important growth opportunity for women and girls.
References


Appendix A
PERSONALITY TRAITS OF FEMALE ATHLETES
AND NON-ATHLETES
Cover Letter/Informed Consent

You are being contacted to participate in a research study looking at the personality traits of female extreme athletes as well as non-athletes. The purpose of this study is to identify both positive and negative personality traits as well as role conflict issues associated with sport participation in hopes of learning more about female athletes. Your input and participation will be extremely valuable in providing important information in the design of future sports programs for young girls.

This study involves filling out the attached three questionnaires. The first questionnaire asks general questions about you and your background. The second questionnaire will ask what kind of person you think you are and how you view yourself in terms of specific personality traits. The third questionnaire asks how you view and experience conflicts between society’s expectations of females and of athletes. It will take approximately 15 minutes to complete all questionnaires. Once completed, place questionnaires in the provided envelope and return to the examiner. No names or otherwise identifying information will be used in this study.

There is minimal risk for participating in this study and no direct benefit to you by participating. However, your participation will help give researchers an improved understanding of female personalities as related to sport participation and potentially be used by high schools and universities to set policies regarding women’s sport programs as well as in the development of programs for young athletes. You can choose whether or not to participate in this study and you are free to discontinue participation in this study at any time without penalty. Whether or not you fill out these questionnaires will not affect you in any way. If you wish to contact an individual who is not associated with this study regarding any concern you may have about the study, then you may contact the LLUMC Patient Representative at (909) 558-4647. If you have any questions directly related to the study, you may contact Carrie Magan at (916) 402-8703 or Dr. Todd Burley at (909) 558-8718. The return of the questionnaires assumes that you are choosing to participate in this study. You may keep this letter for your records.

Thank you,

Carrie Magan, M.A.
Psychology Graduate Student
Loma Linda University

Todd Burley, Ph.D.
Dept. of Psychology
Loma Linda University
Appendix B
BACKGROUND INFORMATION

Age: 

Race or Ethnic Group:
- African-American
- Asian
- Caucasian/White
- Hispanic/Latino
- American Indian
- Pacific Islander
- Other (please identify) 

Annual Income Level:
- Under $10,000
- $10,000 - $25,000
- $26,000 - $40,000
- $41,000 - $60,000
- $61,000 - $85,000
- Over $85,000 

Sexual Orientation:
- Heterosexual
- Bisexual
- Gay/Lesbian

Education (Highest Level Completed):
- Some High School
- High School Graduate
- Some College
- College Graduate
- Some Graduate School

Do you consider yourself an athlete? (circle one) Yes No 

Do you exercise regularly (at least twice per week)? Yes No 

How often do you participate in the following sport activities?

1 = Never
2 = 1-3 times per year
3 = 4-10 times per year
4 = 11-20 times per year
5 = More than 20 times per year

Mountain Biking: 1 ........ 2 ....... 3 ........ 4 ....... 5
Rock Climbing: 1 ....... 2 ....... 3 ........ 4 ....... 5
Snow Boarding: 1 ....... 2 ....... 3 ........ 4 ....... 5
Surfing: 1 ....... 2 ....... 3 ........ 4 ....... 5
Wind Surfing: 1 ....... 2 ....... 3 ........ 4 ....... 5

Please list any other sports you enjoy and participate in often: 

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Appendix C
EXTENDED PERSONAL ATTRIBUTES QUESTIONNAIRE

The items below inquire about what kind of a person you think you are. Each item consists of a pair of characteristics, with the letters A-E in between. For example:

Not at all artistic  A  B  C  D  E  Very artistic

Each pair describes contradictory characteristics - that is, you cannot be both at the same time, such as very artistic and not at all artistic. The letters form a scale between the two extremes. You are to choose a letter which describes where you fall on the scale. For example, if you think you have no artistic ability, you would choose A. If you think you are pretty good, you might choose D. If you are only medium, you might choose C, and so forth.

1. Very whiny  A  B  C  D  E  Not at all whiny
2. Not at all independent  A  B  C  D  E  Very independent
3. Not at all arrogant  A  B  C  D  E  Very arrogant
4. Not at all emotional  A  B  C  D  E  Very emotional
5. Very boastful  A  B  C  D  E  Not at all boastful
6. Not at all excitable  A  B  C  D  E  Very excitable in major crisis
7. Very passive  A  B  C  D  E  Very active
8. Not at all egotistical  A  B  C  D  E  Very egotistical
9. Not at all able to devote to self  A  B  C  D  E  Able to devote to self
10. Not at all spineless  A  B  C  D  E  Very spineless
11. Very rough  A  B  C  D  E  Very gentle
12. Not at all complaining  A  B  C  D  E  Very complaining
13. Not at all helpful to others  A  B  C  D  E  Very helpful to others
14. Not at all competitive  A  B  C  D  E  Very competitive
15. Subordinates oneself to others  A  B  C  D  E  Never subordinates
16. Very greedy
   A........B........C........D........E
   Not at all greedy

17. Not at all kind
   A........B........C........D........E
   Very kind

18. Very dictatorial
   A........B........C........D........E
   Not at all dictatorial

19. Doesn't nag
   A........B........C........D........E
   Nags a lot.

20. Not at all aware of feelings of others
   A........B........C........D........E
   Very aware of feelings of others

21. Can make decisions easily
   A........B........C........D........E
   Has difficulty making decisions

22. Very fussy
   A........B........C........D........E
   Not at all fussy

23. Gives up very easily
   A........B........C........D........E
   Never gives up easily

24. Very cynical
   A........B........C........D........E
   Not at all cynical

25. Not at all self-confident
   A........B........C........D........E
   Very self-confident

26. Does not look out only for self; principled
   A........B........C........D........E
   Looks out only for self; unprincipled

27. Feels very inferior
   A........B........C........D........E
   Feels very superior

28. Not at all hostile
   A........B........C........D........E
   Very hostile

29. Not at all understanding of others
   A........B........C........D........E
   Very understanding of others

30. Very cold in relations with others
   A........B........C........D........E
   Very warm in relations with others

31. Very servile
   A........B........C........D........E
   Not at all servile

32. Not at all gullible
   A........B........C........D........E
   Very gullible

33. Goes to pieces under pressure
   A........B........C........D........E
   Stands up well under pressure
Appendix D

ATHLETIC SEX ROLE CONFLICT INVENTORY

The following statements refer to the possible conflicts encountered by female athletes. REGARDLESS OF YOUR PERSONAL EXPERIENCES with these problems, will you please indicate whether you see them as actual problems for female athletes in general, and if so, how important you believe them to be. Place a √ on the appropriate line.

1. Because American society traditionally places little value on girls’ participation in sports, the female athlete receives little recognition for her skills and accomplishments.
   This seems to me to be
   ── Not a problem at all
   ── A problem of little importance
   ── A problem of moderate importance
   ── A problem of great importance
   ── A problem of very great importance

2. Girls are usually expected to have low levels of sports skills, but athletes must develop their skills to a high level.
   This seems to me to be
   ── Not a problem at all
   ── A problem of little importance
   ── A problem of moderate importance
   ── A problem of great importance
   ── A problem of very great importance

3. Girls are expected to lose consistently to boys when competing with them, but athletes should strive to win over all opponents.
   This seems to me to be
   ── Not a problem at all
   ── A problem of little importance
   ── A problem of moderate importance
   ── A problem of great importance
   ── A problem of very great importance

4. Girls generally are expected to express their emotions freely (giggling, cheering, crying), but athletes are supposed to remain poised during competition.
   This seems to me to be
   ── Not a problem at all
   ── A problem of little importance
   ── A problem of moderate importance
   ── A problem of great importance
   ── A problem of very great importance

5. Because our society typically feels that sports are for men, the woman athlete must risk the female "jock" image when she participates in sports.
   This seems to me to be
   ── Not a problem at all
   ── A problem of little importance
   ── A problem of moderate importance
   ── A problem of great importance
   ── A problem of very great importance

6. Girls are expected to look attractive and dress well, but participation in athletic activities often results in sweat, tousled hair, and broken fingernails.
   This seems to me to be
   ── Not a problem at all
   ── A problem of little importance
   ── A problem of moderate importance
   ── A problem of great importance
   ── A problem of very great importance
7. Girls have traditionally been characterized as passive and submissive, but athletic competition often requires dominating and aggressive behavior.

This seems to me to be: 
- Not a problem at all
- A problem of little importance
- A problem of moderate importance
- A problem of great importance
- A problem of very great importance

8. Girls should be available for dates, parties and other social activities, but an athlete needs to devote much time to practices and evening games.

This seems to me to be: 
- Not a problem at all
- A problem of little importance
- A problem of moderate importance
- A problem of great importance
- A problem of very great importance

9. Parents may encourage their daughters to participate in many kinds of activities, but an athlete often devotes a great deal of attention to sport.

This seems to me to be: 
- Not a problem at all
- A problem of little importance
- A problem of moderate importance
- A problem of great importance
- A problem of very great importance

10. Girls usually are expected to show very little knowledge of or interest in sports, but an athlete must possess an in-depth knowledge of a sport.

This seems to me to be: 
- Not a problem at all
- A problem of little importance
- A problem of moderate importance
- A problem of great importance
- A problem of very great importance

Will you please indicate in this portion of the questionnaire whether any of these problems has CAUSED YOU ANY PERSONAL CONCERN (i.e. that you have experienced this problem and been to some extent troubled by it). If so, please indicate to what extent.

1. Because American society traditionally places little value on girls’ participation in sports, the female athlete receives little recognition for her skills and accomplishments.

I have personally experienced this problem: 
- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent

2. Girls are usually expected to have low levels of sports skills, but athletes must develop their skills to a high level.

I have personally experienced this problem: 
- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent

3. Girls are expected to lose consistently to boys when competing with them, but athletes should strive to win over all opponents.

I have personally experienced this problem: 
- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent
4. Girls generally are expected to express their emotions freely (giggling, cheering, crying), but athletes are supposed to remain poised during competition.

I have personally experienced this problem...

- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent

5. Because our society typically feels that sports are for men, the woman athlete must risk the female “jock” image when she participates in sports.

I have personally experienced this problem...

- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent

6. Girls are expected to look attractive and dress well, but participation in athletic activities often results in sweat, tousled hair, and broken fingernails.

I have personally experienced this problem...

- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent

7. Girls have traditionally been characterized as passive and submissive, but athletic competition often requires dominating and aggressive behavior.

I have personally experienced this problem...

- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent

8. Girls should be available for dates, parties and other social activities, but an athlete needs to devote much time to practices and evening games.

I have personally experienced this problem...

- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent

9. Parents may encourage their daughters to participate in many kinds of activities, but an athlete often devotes a great deal of attention to sport.

I have personally experienced this problem...

- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent

10. Girls usually are expected to show very little knowledge of or interest in sports, but an athlete must possess an in depth knowledge of a sport.

I have personally experienced this problem...

- Not at all
- To a small extent
- To a moderate extent
- To a great extent
- To a very great extent