

# Development of the Positive and Negative Athletic Contexts for Healthy Eating (PANACHE)

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## Abstract

To better understand the equivocal findings on disordered eating and body dissatisfaction in female athletes, a survey packet was compiled to measure athletes' personal experiences with teammates and coaches, athletes' beliefs about the impact of weight and shape on performance, and athletes' perceptions concerning the "culture" of their particular sports in regards to body image and eating habits. The Positive and Negative Athletic Contexts for Healthy Eating (PANACHE) was created through use of previously validated measures, adaptations of established measures to make them sport-specific, and formation of new measures to investigate athletic experiences such as weight-related comments from teammates and coaches, locker room and team meal behaviors, comfort in team sanctioned uniforms, and sport-specific body ideals. Modifications to the PANACHE were made based on feedback from a focus group of eight Division III female athletes and on responses from six experts in the fields of body image, eating disorders, and sports psychology. The resulting 220-item PANACHE will be used in a forthcoming on-line study of its reliability and validity with Division III female athletes.

## Introduction

- Studies conducted to examine eating disorders among female athletes have found that prevalence rates ranged from as low as 1% to as high as 62% (Beals, 2004). This suggests that the athletic environment may have the potential to be both a risk factor and a protective factor for the development of disordered eating habits.
- Research on body image in female athletes has been similarly inconclusive. Despite finding that athletes had less body dissatisfaction than non-athletes, a meta-analysis conducted by Smolak, Murnen, and Ruble (2000) reported that athletes showed significantly more eating problems compared to non-athletes, although this composite difference was very small ( $d = .07$ ;  $k = 64$ ) and masked a great deal of heterogeneity.
- Two circumstances that contribute to whether athletic participation is a risk factor or a resiliency factor are circumstances such as level of play (e.g., elite versus non-elite) and type of sport (e.g., lean vs. non-lean).
- Despite these distinctions, little research has focused on how various components of the sport environment impact athletes' views and behaviors regarding body image and eating habits. Therefore, this summer science project sought to develop a questionnaire that would assess the positive and negative influences on body image, eating, and weight management of female athletes in the sport environment.



## Methods

- Given the limited research on the potential sources of positive and negative influences on eating habits and body image in female athletes, two models were designed (Figures 1 & 2) to guide development of the questionnaire.
- The original model for the potential negative pressures within the athletic environment was based on the research of Williamson et al. (1995), who examined the extent to which body concern and disordered eating were predicted by social influence for thinness, athletic performance anxiety, and self-appraisal of athletic achievement.
- A pilot draft of the PANACHE was completed independently by 8 female varsity athletes at Kenyon, who then met with the researchers as a focus group.
- No data from the focus group were recorded and subsequently analyzed, but the researchers received feedback on the content, length, and comprehensibility of the PANACHE.

Figure 1. Sociocultural Contributors to Unhealthy Weight Management and Disordered Eating in Female Athletes

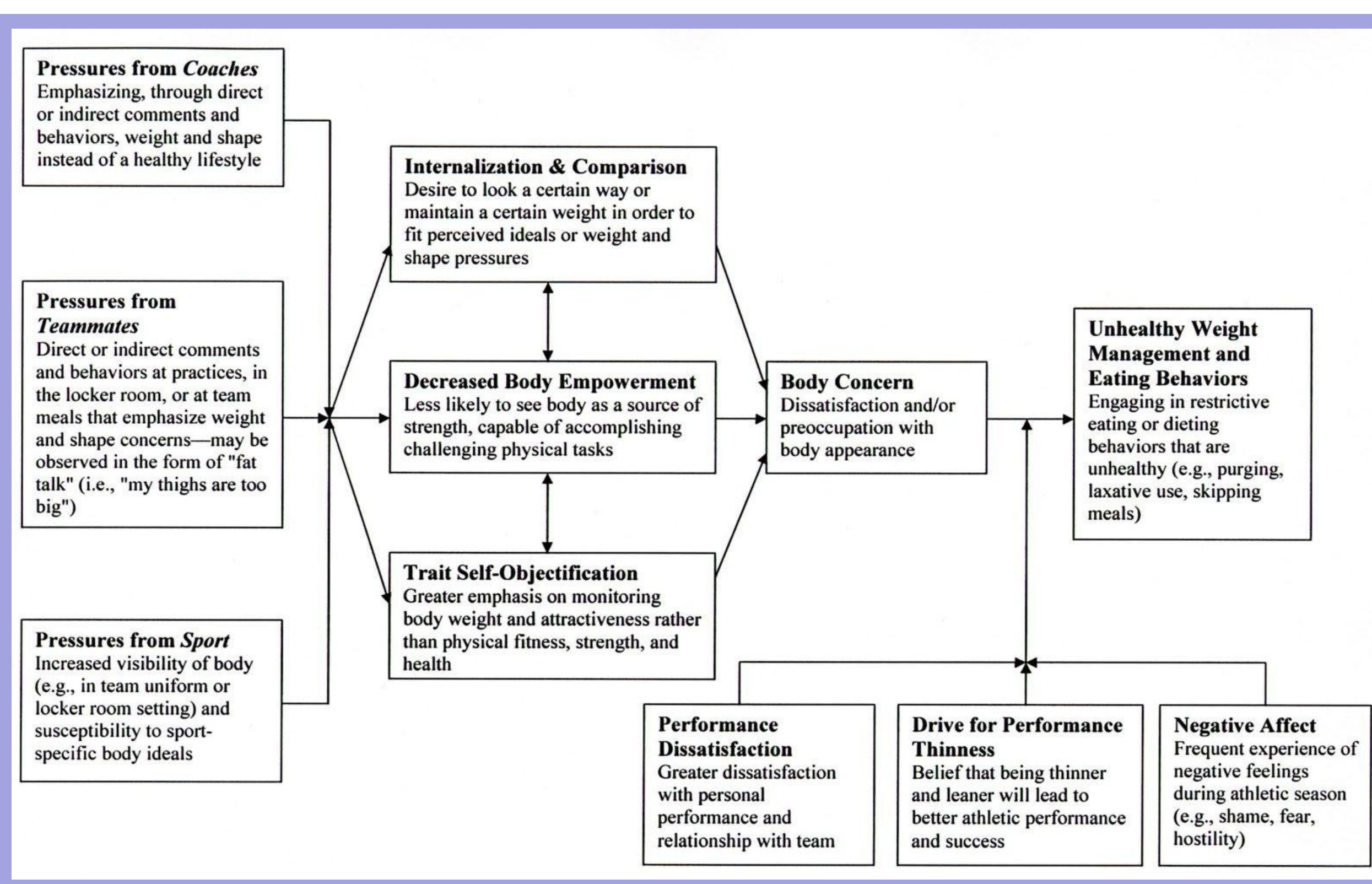
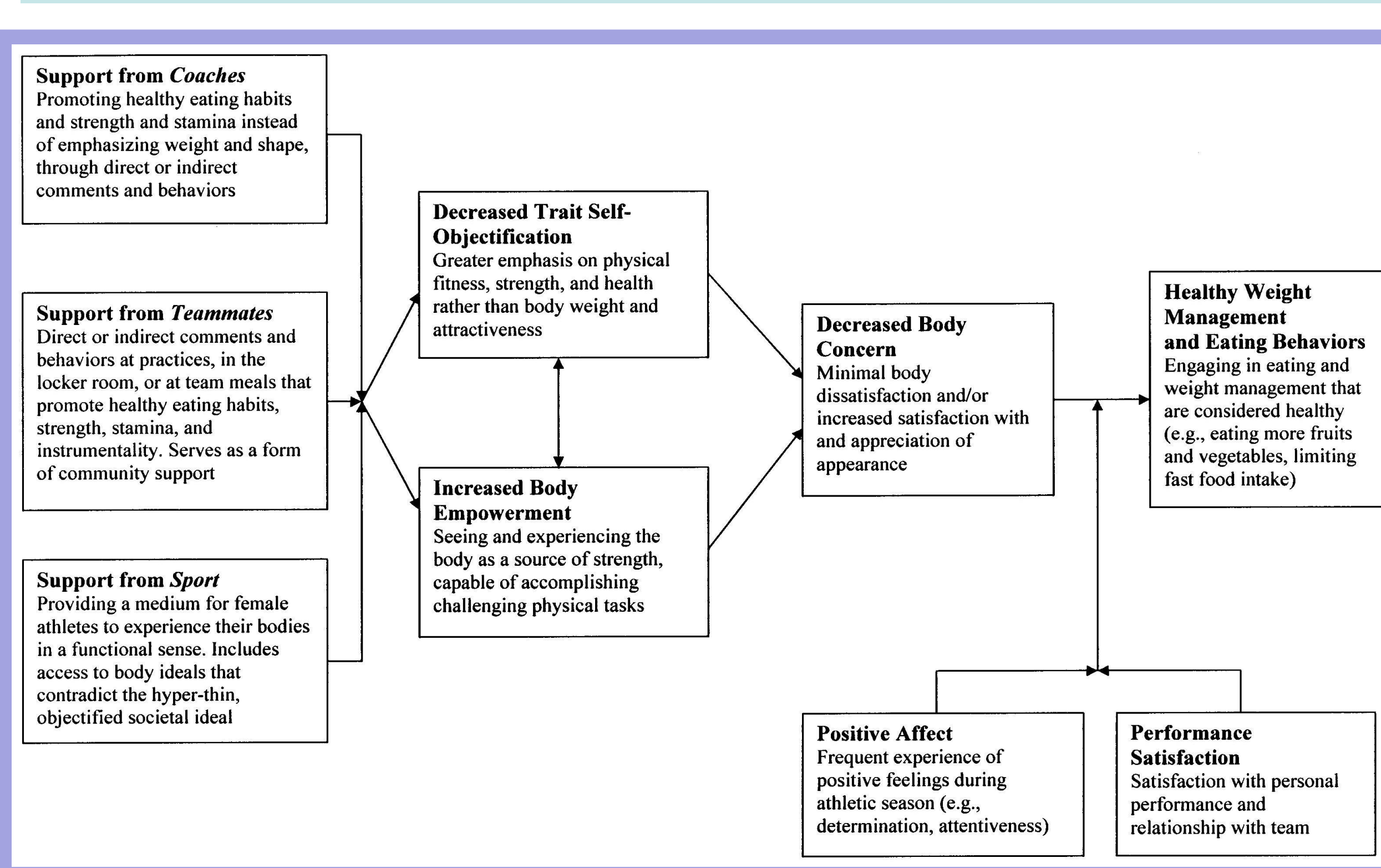


Figure 2. Sociocultural Factors Supporting Healthy Weight Management and Eating in Female Athletes



## Below is a sample of the new items created for the PANACHE

- In my sport, the athletes, coaches, and spectators understand that there is an ideal body type or body composition for success in the sport [positive or negative/sport-specific body ideals]
- I am comfortable with the appearance of my physique/figure when I am in uniform [positive/sport/social physique anxiety in sports]
- In the locker room I or my teammates talk about "thighs, hips, tummies, butts etc." [negative/teammates/athletes, weight, shape]
- I've received a compliment on my strength, fitness, and/or endurance from my coach(es) [positive/coaches/athletes, weight, shape]
- Crowd scrutiny (including comments) about my weight and shape makes me concerned about my weight and physical appearance [negative/sport/weight pressures in sports]

## Results and Future Directions

- Based on an extensive literature review and on the work with the female athlete focus group, the PANACHE appears to have sufficient face and content validity.
- To assess the construct validity of the questionnaire, a draft of the PANACHE was read by a number of experts in the fields of body image, eating disorders and sports psychology, including Linda Smolak, Sarah Murnen, Jennifer Carter, Roberta Sherman, and Ron Thompson.
- Having received feedback from these experts, the 220-item PANACHE is being revised and submitted for review as a Psychology Honors Project.
- An online study conducted this fall will continue to evaluate the validity and reliability of the PANACHE.



The PANACHE will be used to test hypotheses about the effect of the sports environment on female athletes' body image and eating habits. Hypotheses include:

- Athletes who report weight and shape pressures from coaches or teammates (in the form of direct and indirect comments and behaviors) will indicate (a) greater internalization of, and more social comparison with, body ideals; (b) greater trait self-objectification, that is, increased importance of weight and shape in relation to the importance of physical strength and health; (c) a decreased sense of body empowerment; and (d) higher social physique anxiety. These factors will contribute to an overall greater body concern, which will be the principal mediator for body dissatisfaction and unhealthy weight management and eating behaviors (see Figure 1).
- Although athletes may feel weight and shape pressure from a particular source, other sources may act as a means of support for positive body image and healthy eating. Therefore, athletes who report weight-and-body-image-related support from coaches or teammates, or athletes who report weight-and-body-image-related support from expectations within their sport will express (a) decreased internalization of, and comparison with, body ideals; (b) less trait self-objectification; (c) increased body empowerment; and (d) lower social physique anxiety. These factors will contribute to lower levels of body concern, and in turn to body satisfaction and healthier weight management and eating behaviors (see Figure 2).
- The relationship between pressures experienced in the athletic environment and weight concerns will be moderated by athletes' satisfaction with their performance and sports experience and by adherence to the idea of performance thinness.

## References

- Beals, K. A. (2004). *Disordered eating among athletes: A comprehensive guide for health professionals*. Champaign, IL: Human Kinetics.
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- Williamson, D. A., Netemeyer, R. G., Jackman, L. P., Anderson, D. A., Funch, C. L., & Rabalais, J. Y. (1995). Structural equation modeling of risk factors for the development of eating disorder symptoms in female athletes. *International Journal of Eating Disorders, 17*, 387-393.