

Slim Enough to Swim? Weight Pressures for Competitive Swimmers and Coaching Implications

By: Justine J. Reel, Ph.D. and Diane L. Gill, Ph.D.

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Swimmers found themselves in the spotlight at the 2000 Sydney Olympics and in the scrutiny of spectators and sport researchers alike. An attempt is often made to determine what the athlete is feeling behind the scenes and this article will focus on body weight concerns among swimmers. While sports such as gymnastics (Conviser, Fitzgibbon, & Kahn, 2000) and figure skating (Smith, 1997; Ryan, 1995) have been consistently labeled "leanness-demand" sports, the weight-related pressures for swimmers have been less clear. Benson and Taub (1993) reported that swimmers feel pressure to drop weight, "Swimmers may be especially vulnerable to disordered eating due to the display of their bodies in a tight and revealing team uniform" (p. 360).

Thompson and Sherman (1993) hypothesized that swimmers face unique pressures to lose weight in their sport. While the revealing team uniform has been reported by cheerleaders (Reel & Gill, 1998), for swimming there is the additional pressure that comes with the perception held by many top swim coaches that lower body weight and body fat improves swimming times. Thorton (1990) demonstrated that Olympic females were told to lose weight and body fat to cut times. "When freestyler Tiffany Cohen won her Olympic medals, her body fat was 22%. That percentage is considerably above the 15% that many coaches routinely advocate as an upper-end cutoff for elite female swimmers" (p. 120).

This study has the following purposes: (1) To identify most frequently reported weight-related stressors in swimming; (2) To examine the prevalence of weight concerns among female swimmers; and (3) To determine whether body concerns/stressors in swimming are related to social physique anxiety.

Method

Participants

Sixty-two female swimmers from 7 college swim teams participated. Swimmers weighed 99 to 190 pounds ($M=134.21$). Most swimmers reported wanting to lose weight ($M=7.56$ pounds), with one swimmer wanting to drop 37 pounds.

Measures

The Weight Pressures in Swimming (WPS) inventory was patterned after Reel & Gill's (1996) CHEER instrument that measured weight pressures in cheerleading. Internal consistency for all 10 items was low, which resulted in dropping detracting items to obtain a stronger and more reliable measure ($\alpha=.71$)

The Social Physique Anxiety Scale (SPAS), a 12-item self-report measure developed by Hart, Leary and Rejeski (1989), measures one's degree of social physique anxiety which has been defined as the degree of anxiety one experiences when presenting one's body to others. Internal consistency for SPAS has been reported ($\alpha=.90$) and validity has been supported by the moderate correlation of SPAS to other measures.

Results

Over half (51.6%) of swimmers agreed with the statement, "There are weight pressures in swimming." Most frequently reported weight stressors were as follows: the revealing team uniform (swim suit) - 45.2%; the perception that lower weight helps swim performance (42%); teammates noticing weight (16.1%); crowd scrutinizing body (12.9%); and the feeling that the lightest swimmers have a performance advantage (9.7%). Positive responses to WPS are provided in Table 1.

Table 1. *Positive Responses to WPS*

WPS Items	Strongly Agree/Agree %
My team has a try-out weight requirement.	1.6% (1)
Swim team should have a weight limit.	4.8% (3)
My swim performance would improve if I lost at least 5 pounds.	42% (26)
My team members notice if I put on weight.	16.1% (10)
My coach encourages swimmers to lose weight.	0% (0)
My team participates in weight training.	59.7% (37)
Lightest swimmers are at a performance advantage	9.7% (6)
My team swim suit makes me conscious of my bodily appearance.	45.2% (28)*
Weigh-ins are held throughout the season.	3.2%
The crowd scrutinizes my body and makes me concerned about weight and appearance.	12.9% (8)

Scores on SPAS ranged from very low (16) to very high (58 out of a possible 60). The mean score ($M = 33.8$, $SD = 9.87$) for the swimmers fell in the healthy (low SPAS) range. However, 16 female swimmers scored in the high SPAS range. Pearson correlational analyses revealed a moderate correlation ($r=.51$) between total WPS and SPAS scores, suggesting that weight concerns specific to swimming were related to body image. SPAS was also logically related to some individual items of WPS, including crowd stressor ($r=.46$), performance stressor ($r=.42$), teammate stressor ($r=.27$), and swim suit stressor ($r=.26$).

Discussion

Clearly, some swimmers are experiencing weight-related stressors in the competitive swimming environment. While the uniform and performance pressures were frequently cited, other stressors (e.g., crowd, teammates) were also reported. Interestingly, although competitive suits are typically one-piece styles, participants reported that suits are ordered in much smaller sizes to encourage a streamlining effect. Therefore, competitive swimmers often wear swimsuits that are 2 or more sizes smaller than their typical size, and in some cases youth sizes are worn to prevent drag. The beliefs that decreased weight and body fat are associated with increased performance are widespread. Unfortunately these beliefs are learned by young swimmers who preach them when they become coaches. Although many swimmers seem able to cope with the pressure to lose weight, some swimmers with high levels of social physique anxiety seemed to be "at-risk" for disordered eating.

Coaching Implications

Coaches may benefit from an awareness of weight-related pressures for competitive swimmers. It is important to understand that while swimmers may become more comfortable than the general public about wearing swim suits, that they may experience the stress associated with wearing very small and revealing suits for competitive purposes. More importantly, swim coaches need to be aware that while many swimmers may have healthy body image, there may be some swimmers that have highly negative feelings toward their body. It is anticipated that their negative self-thoughts may impact swim performance and attitudes toward competitive swim participation. A summary of coaching strategies for preventing weight stressors from occurring among competitive swimmers is provided in Appendix A.

Future research in this area should focus on coaching attitudes about body weight and swim performance. With the advent of the new Fast-skin suits, researchers should observe whether there are changes in weight-related attitudes. Weight-related stressors among male and female swimmers in Division I schools, Olympic swimmers, and youth swimmers should be explored in depth. It is clear that there are pressures related to body weight for collegiate female swimmers as outlined by one swimmer:

I cannot be as competitive because of my heavier bone structure. Going faster is easier for lighter people. Everyone changes in the dressing room together and the dressing room has a scale. Everyone on the team is always prone to gossip if there is anyone who is especially overweight or to compare themselves to the "skinny" people on the team.

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Appendix A

Coaching Strategies

1. Eliminate weight requirements and weight-related goal-setting.
2. Avoid group weigh-ins.
3. Allow team members to choose team suit whenever possible.
4. Educate swimmers about muscle weighing more than fat.
5. Encourage swimmers to meet caloric intake needs.
6. Discourage team members from making weight-related comments to other swimmers.
7. Evaluate your beliefs about weight-performance relationship.
8. Monitor swimmers' eating behavior/body concerns and look for "at-risk" swimmers.
9. Listen to swimmers' concerns about weight and body.
10. Encourage "at-risk" swimmers to keep a food log to ensure adequate caloric intake.
11. Develop a referral network at your university or in your community so that you can refer an athlete as needed
12. Watch comments that suggest swimmers should drop weight to cut times