

Psychosocial Factors Related to Eating Disorders Among High School and College Female Cheerleaders

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Abstract:

Seventy-three college female and 84 high school female cheerleaders participated in the current study on eating disorders and pressures within cheerleading. The participants completed the Eating Disorder Inventory (EDI), the Social Physique Anxiety Scale (SPAS), and CHEER, a measure developed by the authors to identify pressures within cheerleading. A one-way MANOVA indicated significant differences between high school and college cheerleaders on CHEER and SPAS. Correlational analyses revealed a strong relation between SPAS, body dissatisfaction scores, and eating behavior, suggesting that body image is an important predictor for eating disorders in cheerleaders. Moreover, although high school cheerleaders reported fewer pressures than their college counterparts, they exhibited greater body dissatisfaction and disordered eating patterns.

Article:

Cheerleading has traditionally been popular among females in the US, and it is gaining in popularity among U.S. males. Although cheerleading is not always recognized as a sport by athletic departments (no athletic scholarships are offered in cheerleading), it shares some pressures with other sports and has some pressures unique to itself. Like gymnasts and figure skaters, cheerleaders must keep weight low to perform challenging and crowd-pleasing stunts (Ryan, 1995). Cheerleaders, like competitive divers, must wear revealing attire that often magnifies bodily flaws. In addition, many cheerleaders experience periodic weigh-ins like competitive wrestlers and swimmers. Despite inevitable pressures within cheerleading to keep body weight low, few eating disorder studies have focused on cheerleaders alone (Thompson & Sherman, 1993).

An exception was Borgen and Corbin's (1987) study that identified cheerleaders, along with ballet dancers, gymnasts, and weightlifters, as a group of athletes that belonged to sports that emphasize a lean bodily appearance. The leanness-demand group ($n = 35$) was compared with female athletes in activities with no emphasis on leanness ($n = 32$) and with female nonathletes ($n = 101$) with regard to preoccupation with weight and tendencies toward eating disorders; it was found that the leanness-demand group exhibited a higher tendency than the other groups toward the development of eating disorders.

Thompson and Sherman (1993) also identified cheerleading as a leanness-demand sport with an increased risk for eating disorders; they identified the potential pressure associated with the proposed collegiate weight standard of 120 pounds and body-fat limit between 9% and 17% for college cheerleaders. They noted the lack of research studies conducted with cheerleaders (with the exception of Lundholm & Littrell, 1986, who studied the eating behavior of 751 high school cheerleaders). They identified the existence of disordered eating behavior among the high school cheerleaders in their sample; however, the prevalence of disordered eating and pressures specific to cheerleading were not reported.

There are numerous pressures to lose weight associated with cheerleading. College cheerleaders may face the pressure of try-out weight limits that are common to many NCAA schools. In addition, the female cheerleaders who make the squad are encouraged to continue losing weight throughout the season while simultaneously participating in a weight-training program that increases muscle mass. Sources of pressures to keep weight low can involve the coach, the stunt partner, and the audience. For example, the coach may comment on weight, or go as far as benching a squad member who does not "make weight" in a weekly weigh-in. Harris and Green's

(1990) study with 28 competitive female gymnasts demonstrated the negative impact of gymnastic coaches. Although 56% of gymnasts in the study were told by their coach that they should lose weight, 61% of the gymnasts were on a diet to lose weight. The gymnasts in Harris and Greco's (1990) study reported engaging in the following weight-control methods: 75%, mild diet; 71%, increased levels of exercise; 43%, strict diet; 18%, starvation for a day; and 7%, laxative use. One respondent reported taking as many as 22 Ex-Lax in one day. Moreover, 57% of the gymnasts exercised more than 4 hours a day.

The cheerleader's stunt partner serves as an additional pressure for losing weight because it is easier to perform a difficult skill with a lighter partner. Likewise, Black (1991) argued that low body weight is positively correlated with improved vertical movement and ease in being lifted or carried. The lightest females on the squads have the opportunity to participate in the stunts that are most impressive to the crowd. Being a "flier" instead of a "base" is clearly more prestigious for female high school cheerleaders. The audience also serves as reinforcement for keeping weight low because cheerleaders are forced to face public scrutiny based upon their bodily appearance. Being in scanty uniforms brings attention to any flaws of one's bodily appearance, as evidenced by Benson and Taub's (1993) study with competitive swimmers: "Swimmers may be especially vulnerable to disordered eating due to the display of their bodies in a tight and revealing competitive uniform" (p. 360). Ryan (1995) noted that athletes, such as figure skaters, can lose points if the judges dislike the costume or the way the athlete's body is presented in a uniform. Cheerleaders, too, are evaluated by the audience, the coach, and judges in cheerleading competitions based on how they look in the team uniform.

The current research is couched in a multidimensional theoretical framework that recognizes a multifaceted set of antecedents to eating disorders, including biogenetic, psychological, and sociological factors. The study focuses on specific psychosocial factors related to eating disorders: perfectionistic attitudes, feelings of body dissatisfaction, feelings of inadequacy, social physique anxiety and body image, and sport-related pressures in cheerleading.

The current study investigated pressures unique to the sport of cheerleading and also compared college and high school female cheerleaders with regard to psychosocial predictors of eating disorders. The purpose of the current study was to determine the following:

1. Do pressures exist in cheerleading to lose weight, and if so, which pressures are most frequently reported by cheerleaders?
2. Is there a difference between college and high school cheerleaders either in the amount of sport pressure or the psychosocial variables?
3. Which psychosocial variables best predict the tendency to exhibit anorexic or bulimic eating behavior?

It was hypothesized that both high school and college members would exhibit attitudes and behaviors that suggest a tendency toward the development of eating disorders. However, it was predicted that college cheerleaders would have greater scores than high school cheerleaders on psychosocial predictors of eating disorders, including sport pressure.

Method

Subjects

The subjects were 157 cheerleaders (73 college females and 84 high school females), who ranged in age from 14 to 23 years ($M = 17.4$ years). A research review board granted approval to conduct the study with six public high schools in North Carolina, and the cheerleading coaches of the participating college squads at six Division I public universities in North Carolina were contacted directly. All squad members at the college level agreed to participate, whereas all but one member of the high school squads returned parental consent forms and voluntarily participated.

Measures

The measures used in the current study included the Eating Disorder Inventory (EDI), Social Physique Anxiety Scale (SPAS), and the CHEER questionnaire. The EDI was developed by Garner (1984) to predict one's tendency toward the development of eating-disordered behavior. The EDI includes 64 items with eight subscales that reflect eight psychosocial variables (drive for thinness, bulimia, body dissatisfaction, ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, and maturity fears) related to eating attitudes and behavior. Reliability has been supported for Garner's (1984) self-report questionnaire, with reliability coefficients (alphas) for the 64-eating disorder, eight-item EDI ranging from .83 to .93 for the subscales. Validity of the EDI has also been established since the questionnaire distinguishes between eating-disordered and nonpatient samples. Moreover, construct validity of EDI was demonstrated with the strong correlation between the EDI subscales, the EAT-26, and the Restraint Scale for Eating Disorder Patients.

The Social Physique Anxiety Scale (SPAS) is a 12-item, self-report scale developed by Hart, Leary, and Rejeski (1989) to measure social physique anxiety. *Social physique anxiety* is defined as the anxiety that results from the social evaluation of one's physique (Hart et al., 1989). SPAS has demonstrated reliability, with Cronbach's alpha coefficient at .90. Validity of SPAS has also been tested and supported, as Hart et al. (1989) showed that SPAS correlated moderately with measures involving concerns with others' evaluations (interaction anxiousness and fear of negative evaluation measures). SPAS had an even stronger correlation with measures of body cathexis and body esteem, demonstrating that the instrument represented body image concerns.

CHEER is a self-report inventory created to examine pressures specific to the sport of cheerleading. The 17 items, located in the Appendix, assessed the frequency of pressures in cheerleading such as weight limits; weigh-ins; and pressure from one's stunt partner, coach, peers, and family. The purpose of CHEER was to assess pressures in cheerleading to lose weight and to identify the pressures most commonly reported by cheerleaders.

Pressures to be included in CHEER were identified by a review of literature (e.g., Thompson & Sherman, 1993) and a pilot study that demonstrated the pressures in CHEER were valid for cheerleaders in general. Thirteen questions were structured with *strongly agree*, *agree*, *neutral*, *disagree*, and *strongly disagree* given as possible responses. In addition, CHEER included a question on caloric intake, an item on exercise frequency, an item asking about weight requirements specific to the subject's squad, and a final open-ended question allowing the respondent to list pressures associated with cheerleading that were not addressed by CHEER.

The internal reliability of CHEER was examined in the current study. One CHEER item, "The lightest female squad members are at a distinct performance advantage," detracted from the internal consistency of CHEER. Internal consistency for the remaining 12 items was demonstrated with an alpha = .71, and a total CHEER score was calculated for analysis with those 12 of the 13 original items.

Procedure

The EDI, SPAS, CHEER, and a cover sheet with demographic information were administered during the participating squads' practices. The investigator informed the subjects that participation was voluntary and results were confidential. The researcher administered and collected the questionnaires to keep testing conditions consistent and to prevent biases created by having the coach directly involved with the testing process. The testing lasted less than 20 minutes for each squad. The participants were instructed to sit away from each other and to answer all items honestly and accurately; they had the opportunity to ask questions when needed; and when they completed the survey they enclosed the test packet in a sealed envelope before returning it to the investigator.

Results

Descriptive Information

A cover sheet for the test packets contained questions pertaining to demographic information about the subjects, such as age, height, weight, race, and years of cheerleading experience. The data demonstrated that the high

school cheerleaders ranged in age from 14 to 18 years ($M = 15.7$), whereas college cheerleaders ranged from 17 to 23 years ($M = 17.4$).

The racial/ethnic composition of the sample in the current study was as follows: 134 subjects (85.4%) were Caucasian, 13 subjects (8.3%) were African American, 7 subjects (4.5%) were Asian/Pacific Islander or Asian American, 2 subjects (1.3%) were Hispanic or Hispanic American, and 1 subject (0.6%) was African American and Native American. Individuals from all racial/ethnic groups reported similar disordered eating behavior.

For the items that asked for actual and ideal (or desired) body weights of the cheerleaders, the difference between the actual and ideal weight served as an informal measure of the degree of satisfaction or dissatisfaction with one's current weight. The average current weight of the high school subjects ($M = 118.5$ pounds, $SD = 13.2$) was greater than that of the college subjects ($M = 112.6$ pounds, $SD = 8.1$). The average ideal weight reported by the high school cheerleaders (112.6 pounds) matched the average actual weight of the college cheerleaders, however, the college subjects' ideal weight was 109 pounds, still more than 3 pounds lower than their average actual weight.

Pressure Associated With Cheerleading

The results indicated that cheerleaders experience pressure associated with their body weight. In response to the yes/no question, "Do you think there are pressures associated with cheerleading to lose weight or maintain a below average weight?" 84% (132 subjects) responded "yes," whereas only 15.3% (24 subjects) responded "no." The responses were similar for high school and college cheerleaders.

The cheerleaders in the current study most commonly reported the revealing team uniform as a pressure in cheerleading associated with body weight. Of all subjects, 57.8% responded "strongly agree" or "agree," with 53.5% of college subjects and 60.7% of high school subjects reporting the uniform as a pressure in cheerleading.

The second most frequently reported pressure involved the item, "Body weight and appearance are important to my coach." Nearly 46% of subjects strongly agreed or agreed with this item, and the percent increased in college subjects, who responded positively in 69.8% of cases. College cheerleaders also frequently reported (49%) a weight limit to try out, but none of the high school squads had a try-out weight limit. The item regarding periodic weigh-ins also applied more to the college cheerleaders with 39.7% reporting that their squad had such weigh-ins. Only one high school squad had weigh-ins, and the aim of weigh-ins for this high school squad was to prevent squad members from losing too much weight. It may be noted that this particular squad reported fewer disordered eating patterns than other high school squads in the sample, suggesting that this may be an effective method of prevention.

An item that received a large positive response from both high school and college cheerleaders was "My cheerleading performance would improve if I lost at least 5 pounds." For all the subjects 40.1% responded "strongly agree" or "agree."

We investigated the influence of peers on the importance of body weight, and 49.7% of all subjects strongly agreed or agreed with the statement, "Body weight and appearance are important to my friends outside of cheerleading." One's stunt partner was also expected to be a potential pressure for cheerleaders. Although respondents did not appear eager to respond in a definitive direction about their stunting partner (36.3% chose the neutral response), 36.4% of all subjects responded "strongly agree" or "agree." The frequencies of the *strongly agree* and *agree* responses for all items of CHEER are located in Table 1.

Table 1 Positive Responses to CHEER Items

CHEER item #	High school (<i>n</i> = 84) (% responses SA, A)	College (<i>n</i> = 73) (% responses SA, A)
1. Try-out weight	0%	49.3%
2. Should have wt. limit	29.4%	64.4%
3. Weigh-ins	15.5%	39.7%
4. Performance	38.2%	42.5%
5. Stunt partner	41.6%	30.1%
6. Coach encourages weight loss	1.2%	17.8%
7. Weight training	22.7%	93.1%
9. Uniform	60.7%	53.5%
10. Crowd	19.1%	11.4%
11. Coach—important	25.0%	69.8%
12. Family	32.1%	27.4%
13. Peers	53.6%	45.2%

Note. SA = Strongly agree; A = Agree

Differences Between College and High School Cheerleaders

The main analysis of the current study involved a comparison of high school and college cheerleaders with regard to psychosocial variables and sport pressure. A one-way MANOVA with CHEER, SPAS, and the eight EDI subscales as dependent variables indicated significant differences between high school and college cheerleaders, $F(10, 145) = 12.41, p < .001$. College cheerleaders scored significantly, $F(1,154) = 56.9, p < .001$, higher ($M = 38.1, SD = 6.7$) than high school cheerleaders ($M = 30.2, SD = 6.7$) on CHEER. This supports the hypothesis that the college cheerleaders have greater pressure associated with body weight than the high school cheerleaders.

There was also a significant univariate difference, $F(1,154) = 11.3, p < .01$, between college ($M = 33.0, SD = 6.2$) and high school cheerleaders ($M = 38.4, SD = 10.5$) on SPAS, but in this case, high school cheerleaders exhibited greater social physique anxiety than their college counterparts.

The results also indicate a significant univariate difference between high school and college cheerleaders for the body dissatisfaction score from the EDI. High school cheerleaders had significantly greater body dissatisfaction ($M = 11.0, SD = 9.0$) than college cheerleaders ($M = 7.6, SD = 7.4$). These results are logical as SPAS and body dissatisfaction were strongly correlated ($r = .75$).

There were also significant univariate differences between high school and college cheerleaders' scores for the bulimia, maturity fears, and ineffectiveness subscales of the EDI, with the high school cheerleaders higher on all subscales, with the exception of perfectionism. Table 2 shows a complete comparison between high school and college cheerleaders' mean scores from the eight EDI subscales, SPAS, and CHEER.

Table 2 Mean Scores and Univariate *F* of High School and College Cheerleaders on CHEER, SPAS, and EDI Subscales

Measure	High school	College	Univariate <i>F</i>
CHEER score	30.2	38.1	56.9***
SPAS score	38.4	33.0	11.3**
Drive thinness	6.5	5.8	0.5
Bulimia	2.1	1.0	4.9*
Ineffective.	2.7	1.3	5.5*
Body dissatis.	11.0	7.6	6.9**
Interoceptive awareness	4.5	2.9	3.7
Interpersonal distrust	2.3	2.0	0.4
Maturity fears	4.6	3.2	6.2*
Perfectionism	6.5	7.5	1.9

* $p < .05$. ** $p < .01$. *** $p < .001$.

Psychosocial Predictors of Eating Behavior

A Stepwise Multiple Regression was selected to determine the best psychosocial predictors of the dependent variables, anorexic behavior (represented by the drive for thinness subscale of the EDI) and bulimic behavior (bulimia subscale). The initial regression analysis tested the following variables: SPAS, CHEER, body dissatisfaction, and perfectionism to investigate their predictive value.

For anorexic behavior the predictor variables were entered into a stepwise equation in the following order: body dissatisfaction, perfectionism, and SPAS, giving a final Multiple $R = .75$, $F(3, 152) = 66.12$, $p < .001$. For bulimic behavior perfectionism was entered into the stepwise equation initially, with body dissatisfaction entered second to bring the final Multiple R to $.53$, $F(2,153) = 30.16$, $p < .001$.

Although body dissatisfaction was shown to be a strong predictor, CHEER was not useful in predicting eating behavior in the current study. The psychosocial variable, perfectionism, added to the predictive value of the regression equations for both anorexic and bulimic behavior.

Discussion

Few eating disorder studies have been conducted in athletics in general, but the research on cheerleaders is especially sparse. The current study has shown that pressures are associated with cheerleading to lose weight or maintain a below average weight. The study has also demonstrated the differences in eating behavior between high school and college athletes, demonstrating possible developmental differences.

The study demonstrated that some cheerleaders engage in pathogenic weight- control methods, as one cheerleader admits: "I fly, base, and spot in cheerleading. Everyone thinks that I'm real skinny for my weight ... I don't believe them. I skip meals, I try to go to bed before dinner so my Mom doesn't make me eat." Regardless of the subjects' personal eating behavior, it was the consensus among participants in the study that there are pressures in cheerleading. Some pressures were commonly reported by all cheerleaders in the study, such as revealing uniforms, one's coach, and one's stunt partner. Other pressures applied mainly to college squads as expected, such as weight limits to try out and periodic weigh-ins.

It was hypothesized that college cheerleaders would have significantly greater scores on psychosocial predictors, as well as specific pressures in cheerleading. There was significantly greater sport pressure for college squads as exemplified by CHEER scores, though high school cheerleaders scored higher on most of the other psychosocial variables, as reflected by EDI and SPAS results.

The current study is exploratory, and further research is needed to explain why college cheerleaders demonstrated a lower tendency toward eating disorders despite reporting greater sport pressure. Several possible

explanations may be forwarded. First, a developmental argument would suggest that high school students are at a higher risk than college students for developing eating disorders. Garner's (1984) EDI manual offered normative data on college and high school populations that indicated higher scores on most EDI subscales for high school samples, which predicted a higher tendency among nonpatient high school groups than among nonpatient college groups to engage in disordered eating habits. Since a similar pattern emerged with the current data on cheerleaders, it may be associated with developmental issues.

High school students may be more at risk for developing eating disorders for reasons such as those outlined by Boskind-White and White (1987). High school students may be more predisposed to disordered eating because they exhibit psychosocial risk factors for eating disorders (low self-esteem, body dissatisfaction, etc.). In addition, adolescents may feel lack of control over all aspects of their life due to overly strict parental and school constraints. High school females may also experience bodily changes as their growth slows, causing them to seek methods to maintain their younger physique. High school females may measure body satisfaction by fitting into a particular pair of jeans worn in junior high. Moreover, females are socialized into fitting a particular body ideal. At adolescence, girls are particularly vulnerable to messages sent by media to stay thin in order to be attractive (Boskind-White & White, 1987; Garner & Garfinkel, 1982; Ryan, 1995).

The multiple regression analysis results from the current study support a developmental argument for high school cheerleaders over one that identifies sport as the dominant cause of disordered eating because sport pressure was not found to be a strong predictor of eating disorders. This suggests that the results may reflect the normative female experience of weight preoccupation rather than actual differences between high school and college populations specific to the sport of cheerleading.

Another possible reason why high school cheerleaders exhibited more disordered eating patterns than did college cheerleaders is that the college cheerleaders' responses on the EDI and SPAS were biased due to real or imagined pressure by their coaches to deny any eating or weight-control problems. Many college cheerleading programs bench or expel a cheerleader from the squad if it becomes known that he or she has an eating disturbance. Body dissatisfaction and other characteristics of eating disorders may have been downplayed in some instances due to the fear of some individuals or squads that their coach would be notified.

A final explanation forwarded by the authors is that the transition from high school to college cheerleading may involve a "weeding out" process, whereby only cheerleaders with a particular body physique have the opportunity to cheer in college. It was apparent that college cheerleaders ($M = 62.8$ inches, $SD = 2.2$) were shorter than high school cheerleaders ($M = 64.1$, $SD = 13.2$). Almost all college cheerleaders were under 5'5", with the majority being closer to 5 feet tall. One exception was a college cheerleader who was 5'8" tall who explained that she was "the tallest female squad member in over 5 years." Likewise, the college cheerleaders weighed less on average than the high school cheerleaders. A similar downward trend for height and weight has occurred in gymnastics, in which the average height of an elite gymnast has decreased from 5'3" to 4'9", and weight has gone from 120 pounds to 86 pounds (Ryan, 1995).

Although the college cheerleaders in this study had lower scores on psychosocial predictors of eating disorders, both high school and college cheerleaders reported the existence of pressures in cheerleading associated with body weight. Specific pressures most commonly reported by cheerleaders were identified in the current study.

As the authors and other researchers had predicted, cheerleaders reported multiple pressures within their sport to lose weight or maintain a low weight. Although both college and high school cheerleaders in the study reported engaging in pathogenic weight-control methods (e.g., purging), there was a significant incidence of disordered eating, as shown by EDI responses, among the high school cheerleaders. It is important to examine the individual pressures in cheerleading along with the important psychosocial predictors of eating disorders so that methods of prevention of eating disturbances may be developed by cheerleading coaches, consultants, and cheerleaders.

Practical Implications

The current study breaks new ground for applied sport psychology research for at least three reasons. First, the study examines a sport that has rarely been included in sport psychology research. It provides sport consultants, researchers, and coaches with information about some of the pressures (e.g., coach) that cheerleaders may share with other sports, as well as identifying pressures (e.g., desire to be a flier) unique to the sport of cheerleading.

The study also analyzed differences between eating attitudes and behaviors of high school and college athletes from a single sport, which provides a useful developmental comparison. The results indicated that high school cheerleaders were especially prone to developing disordered eating habits.

Finally, CHEER is a useful instrument for practitioners to use with cheerleaders and other athletes to determine pressures they face to lose weight. The current study was exploratory, and further development of CHEER is necessary. For example, the item referring to weight training might be more specific (e.g., focus on increased muscle mass and body weight associated with weight lifting). The authors intend for sport psychology researchers and consultants to modify and individualize CHEER to fit their needs when evaluating sport pressure. Some items, such as "My performance would improve if I lost at least 5 pounds" would apply universally across sports.

CHEER should also be modified so that it is sensitive to pressures specific to high school cheerleaders and other athletes. For example, try-out weight requirements were not applicable for high school athletes in this study. Likewise, it may be fortuitous to consider differences in sport pressure between college and high school cheerleaders when items not applicable for high school cheerleaders are omitted from total CHEER scores.

Future Research Directions

In addition to furthering the development of the sport-pressure measure, CHEER, other recommendations can be forwarded. Although the current study did not include comparison groups from the general high school and college population, this information would be pertinent for understanding why high school cheerleaders had more eating disturbances. Having normative data would help determine whether the results were indicative of normal high school and college differences in eating behavior instead of being unique to cheerleaders in the study.

The current study included cheerleaders in North Carolina public schools to keep the sample relatively homogeneous. Future studies might examine geographical differences between cheerleaders, as the sport varies largely based on the geographic region. Cheerleaders from states where cheerleading is not as popular may exhibit fewer sport-related pressures to lose weight.

Also, it would be noteworthy to determine whether differences exist among cheerleaders from private schools and public schools both at the high school and college levels. Finally, it would be interesting to study male cheerleaders and analyze differences between eating attitudes and behaviors of male and female cheerleaders from the same squad.

There is increased interest in eating disorders within athletics, and there is also a definitive need for this type of research as exemplified by one cheerleader's response in the current study:

I know I have a problem, but I don't want anyone to know. I have burned a hole in my esophagus and I'm really scared. I am trying to get better and eat regularly but it doesn't always work. I admire you in trying to bring more attention to cheerleaders. I hope your [study] will enable outsiders to realize the importance in helping or recognizing problems in teen-age girls. This (survey) has helped me (somewhat). I don't know how, but it just makes me feel better to let it out. Thanks! Good luck in the future.

References

Benson, R.A., & Taub, D.E. (1993). Using the PRECEDE model for causal analysis of bulimic tendencies among elite women swimmers. *Journal of Health Education, 24*, 360-368.

- Black, D.R., (Ed.). (1991). *Eating disorders among athletes*. Reston, VA: American Alliance for Health, Physical Education, Recreation, and Dance.
- Borgen, J.S., & Corbin, C.B. (1987). Eating disorders among female athletes. *Physician and Sportsmedicine*, 15, 19-23.
- Boskind-White, M., & White, W.C. (1987). *Bulimarexia*. New York: W.W. Norton & Company.
- Garner, D.M. (1984). *Eating disorder inventory-2 professional manual*. Odessa, FL: Psychological Assessment Resources.
- Garner, D.M., & Garfinkel, P.E. (1982). *Anorexia nervosa: A multidimensional perspective*. New York: Brunner/Mazel.
- Harris, M.B., & Greco, D. (1990). Weight control and weight concern in competitive female gymnasts. *Journal of Sport & Exercise Psychology*, 12, 427-433.
- Hart, E.A., Leary, M.R., & Rejeski, W.J. (1989). The measurement of social physique anxiety. *Journal of Sport & Exercise Psychology*, 11, 94-104.
- Lundholm, J.K., & Littrell, J.M. (1986). Desire for thinness among high school cheerleaders: Relationship to disordered eating and weight control behaviors. *Adolescence*, 21, 573-579.
- Ryan, J. (1995). *Little girls in pretty boxes*. New York: Doubleday.
- Thompson, A.A., & Sherman, R.T. (1993). *Helping athletes with eating disorders*. Champaign, IL: Human Kinetics.

Appendix: CHEER

Please answer the following questions by circling *strongly agree* (SA), *agree* (A), *neutral* (N), *disagree* (D), or *strongly disagree* (SD).

1. SA A N D SD My squad has a weight requirement to try out.
2. SA A N D SD Cheerleading squads should have a weight limit.
3. SA A N D SD Weigh-ins are held periodically throughout the cheerleading season.
4. SA A N D SD My cheerleading performance would improve if I lost at least 5 pounds.
5. SA A N D SD My stunt partner notices if I put on weight.
6. SA A N D SD My coach encourages female squad members to maintain a below average weight.
7. SA A N D SD My squad participates in a weight-training program during the season.
8. SA A N D SD The lightest female squad members are at a distinct performance advantage.
9. SA A N D SD My cheerleading team uniform makes me conscious of my bodily appearance.
10. SA A N D SD The crowd scrutinizes my body and makes me concerned about my weight and appearance.
11. SA A N D SD Body weight and appearance are important to my coach.
12. SA A N D SD Body weight and appearance are important to my family.
13. SA A N D SD Body weight and appearance are important to my friends outside of cheerleading.

14. What are your squad's weight policies? (e.g., specific weight limits at try-outs, weight goals, and weigh-ins).

15. How often do you engage in exercise outside of regular practices and games for cheerleading?

- a. never
- b. 1 or 2 days a week
- c. 3-5 days a week
- d. 6 or 7 days a week
- e. More than once daily, 7 days a week

16. My *average* daily caloric intake is _____ calories.

- a. less than 1000 calories/day
- b. 1000-1999 calories/day
- c. 2000-2999 calories/day
- d. 3000 or more calories/day

17. Do you think there are pressures associated with cheerleading to lose weight or maintain a below average weight?

Yes No

List pressures in cheerleading you can think of.

Comments:
