



Comparing Cognitive Dissonance and Healthy Weight Interventions in the Prevention of Eating Disorders in At-Risk Female Collegiate Athletes: A Critically Appraised Topic



Rachel Martin, Stephanie H. Clines, PhD, ATC
Sacred Heart University, Fairfield, CT

CLINICAL SCENARIO

- Eating disorders are defined by the American Psychology Association as “abnormal eating habits that can threaten your health or even your life.”²
- Female athletes are predisposed to a higher risk of eating disorder development²
- By targeting the initial risk factors the projection of these tendencies leading to more severe self-harm behavior decreases.^{2,4}
- Cognitive dissonance theory is based on the notion that counter-attitudinal behavior towards a belief they once thought was true, can mold the mind into disbelief.⁴
- For example, giving reasoning and exercises to endorse body satisfaction and discourage improper eating⁴
- Healthy weight intervention theory is based on the design of educating the subjects on healthy eating habits to decrease at-risk tendencies.⁴
- For example, educating on how many calories an athlete needs in a day to function at the best performance compared to others.⁴

FOCUSED CLINICAL QUESTION

Is there a difference in effectiveness of reducing risk factors for eating disorders in female collegiate athletes who participate in a cognitive dissonance program compared to a healthy weight program?

SEARCH STRATEGY

Sources of Evidence Searched
Three online databases (PubMed, Cumulative Index for Nursing and Allied Health Literature [CINAHL], and ScienceDirect) were searched September to November of 2020 for the search terms: Female collegiate athletes (AND) Preventative cognitive dissonance program (AND) Healthy weight intervention program (AND) Risk factors for eating disorders. Studies were limited to academic and peer reviewed articles published in English after 2010.

Study Selection
Criteria for selection required that original studies: a) Assessed risk factors for developing an eating disorder as an outcome, b) Compared healthy weight interventions and cognitive dissonance programs as prevention strategies for eating disorders, c) Investigate female collegiate athletes, d) Were not meta-analysis or literature reviews, e) Were level B evidence or higher.

SUMMARY OF SEARCH, “BEST EVIDENCE” APPRAISED, AND KEY FINDINGS

Summary of Search and Best Evidence Appraised

- The search of the literature produced 34 articles relating to all search terms and search parameters.
- After review, three relevant studies met the inclusion criteria and were included.
- All studies were critically appraised using the STROBE criteria.

Key Findings

- Each study compared cognitive dissonance and healthy weight intervention to an untreated control group in eating disorder risk factor assessment. Studies reported varying results regarding a best practice strategy between the two interventions.
- Athletes who scored with higher risk at the first session ended up scoring with greater improvement than those with lower risk at the end of the 6 weeks.
- Two studies^{3,6} found both programs/interventions decreased risk.
- One study³ found that both programs increased athlete awareness and self-seeking medical assistance for mental health issues.

RESULTS OF SEARCH

Table 1. Summary of Study Designs of Articles Reviewed

Author	Study Design	Level of Evidence*	Score
C.B. Becker (2011)	Randomized Control Study	1b	21
T.M. Stewart (2014)	Randomized Control Study	1b	19
D.K. Voelker (2019)	Randomized Control Study	2b	18

*Level of evidence assessed using the Oxford Centre for Evidence-Based Medicine 2011 criteria.

CLINICAL BOTTOM LINE

There is moderate quality evidence that there is a difference in effectiveness of reducing risk factors for eating disorders in female collegiate athletes who participate in a cognitive dissonance program compared to a healthy weight program

Strength of Recommendation
This recommendation meets criteria for level B evidence. Two out of the three studies are level 1b evidence, and the third is level 2b.

IMPLICATIONS FOR PRACTICE, EDUCATION, AND FUTURE RESEARCH

- The results of this appraisal support the clinical question that both cognitive dissonance and healthy weight intervention decrease risk, but cognitive dissonance is shown as more effective long-term among the literature.
- Athletic trainers should create a questionnaire to screen for female athletes that may be at a greater risk for development of an eating disorder.
- The process must be efficient enough to implement into the PPE process by focusing on trigger topics such as inquiring about eating and weight management habits of the athlete and how they see themselves in regard to those habits.
- This screening tool should be followed by implementation of either preventative program for those female collegiate athletes who do have a high risk of eating disorder development.
- Once these programs are in place, specifically look at a longer duration of effects (greater than 1 year) of both programs to determine if cognitive dissonance is concretely found to have a longer lasting affect than a healthy weight intervention on at risk athletes.

REFERENCES

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