

THE PREVALENCE OF THE FEMALE ATHLETE

TRIAD IN DIVISION 1 ATHLETES

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ABSTRACT

The Female Athlete Triad (FAT) is characterized by three individualized disorders that are present at the same time. Low energy availability with or without disordered eating, amenorrhea, and osteoporosis are the three components that make up the Female Athlete Triad. Due to the competitive nature and extreme exercise expenditure of female athletes at the Division 1 level, it is likely that these females are at a higher risk of experiencing the components of the Female Athlete Triad.

INTRODUCTION

- The Female Athlete Triad (FAT) is individualized disorders that are present at the same time (Souza et al., 2014).
- The Female Athlete Triad is defined as low-energy availability, with or without disordered eating, amenorrhea, and low bone density (Souza et al., 2014).
- A study of 323 athletes from 16 various sports was conducted by Tenforde et al. (2016), the results showed that 29% of female athletes tested were classified as being at a moderate risk for the female athlete triad.
- In a study conducted by Curry et al. (2015), an electronic survey with an 8-item test on Triad awareness and knowledge was sent to 3,961 medical staff, fellows, and residents .Of the response rate, only 37%, had heard of the Female Athlete Triad .
- According to Beals & Hill (2006), it is very likely that the prevalence of the Female Athlete Triad is underestimated in collegiate athletics.

OPERATIONAL DEFINITIONS

- The Female Athlete Triad: Syndrome characterized by three components: low energy availability with or without disordered eating, amenorrhea, and osteoporosis.
- Low Energy Availability: Defined as dietary intake minus energy expenditure. Low energy availability can cause many issues if too low.
- Disorder Eating: Eating irregularities that pose psychological, social, and physiological risk factors.
- Amenorrhea: The absence of menstrual bleeding.
- Osteoporosis: Osteoporosis can be defined as a disease that is characterized by low bone mass and the deterioration of bone tissue

METHODS

Participants

- Selected through Gardner-Webb University Athletics.
- Flyers were given to all coaches of female athletes.
- Athletes were contacted by the researcher via email if they had an interest in participating.

Criteria

- Between the age of 18 and 22
- Must be a current Division 1 athlete
- Completed the Informed Consent form

Surveys

- EAT-26 Assessment
- Menstrual Irregularity Survey
- Stress Fracture History Survey

Research Design

- Meta-analysis descriptive study
- The 3 surveys were completed by each participant in one sitting and scores were given based on the presence of the disorder.
- Risk Assessment score was calculated.

Data Analysis

- SAS software, (Version 9.4, Cary, NC, USA) for all statistical analysis.
- Chi-squared test to assess the different proportions risk factors associated with all of the participants.
- Prevalence will be shown as the percentage of participants with all 3 components of the Triad.

PURPOSE STATEMENT & HYPOTHESIS

The purpose of this study was to discern if the components of the Female Athlete Triad are prevailing in women in the Division 1 athletic environment. It is hypothesized that that NCAA Division 1 female athletes are at an increased risk of developing at least one, if not all components of the Female Athlete Triad.

DISCUSSION

- A major limitation of this study was convenience sampling. Participants were only selected from one school.
- Another limitation included small sample size.
- Lastly, that the response to the questionnaires were self-reported .
- Bias could have occurred from the participants having previous knowledge of the Female Athlete Triad leading to skewed results.
- Future research could expand the population size. This could be done by broadening the population to different regions in the US.

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