Conducting a Gap Analysis of Current Practices of Screening and Managing of the Female Athlete Triad in Multi-Disciplined Primary Care Settings

RUTGERS School of Nursing

Kaitlin Hulbert, BSN, RN
DNP Chair: Irina Benenson, DNP, FNP-C, CEN
DNP Team Member: Thomas Loveless, PhD, CRNP, AAHIVS

Introduction

- The Female Athlete Triad is a condition observed in physically active females and involves 3 components : **low energy availability** (with or without presence of disordered eating), **menstrual dysfunction** (usually amenorrhea or oligomenorrhea) and **decreased bone mineral density**

Background & Significance

- **Prevalence of the Triad Among Female Athletes**

	1 Component	2 Components	3 Components
Total number of Athletes (N=10,498)	2,834 (27%)	6,298 (60%)	991 (15%)

- **Comorbidities of the Triad**

Menstrual Dysfunction	Low Energy Availability	Low Bone Mineral Density
• Amenorrhea	• Poor athletic performance	• Sprains, strains, tendonitis
• Reversible infertility	• Eating disorders	• Stress fractures
• Irreversible infertility when untreated	• Cardiovascular dysfunction	• Osteoporosis

- **Expert-Based Screening Tools Available**
  - Female Athlete Triad Coalition Risk Assessment Tool
  - Relative Energy Availability in Sport (RED-S)
  - Low Energy Availability in Females Questionnaire (LEAF-Q)
- **Expert-Based Recommendation: Screen active females at every pre-participation sport physical and annual wellness visit**

Methods

- **Purpose:** To identify gaps between expert recommendations for screening and managing the Triad and current primary care provider practices
- **Design:** Quantitative cross-sectional design and gap analysis
- **Setting:** Three multi-discipline primary care provider offices (pediatric, obstetrics and gynecology, and family practice) in Suburban North Jersey
- **Sample:** 11 providers (MDs/DOs/PAs/ APNs) who provide care for young female patients
- **Data collection:** Anonymous 12-question electronic survey was administered to providers between June-July 2021 to assess current practice of screening and managing patients with the Triad
- **Analysis:** Descriptive statistics was used to conduct the analysis
- **Intervention:** A toolkit was created to address identified gaps in practice

Results

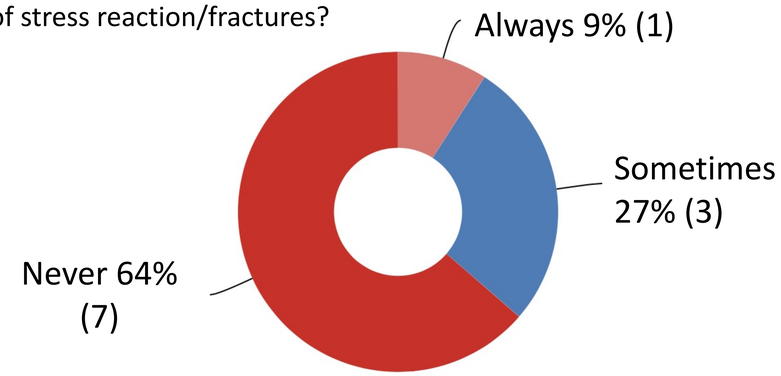
- Demographics of the sample:

Participant Demographic Breakdown (N=11)			
Specialty	Pediatrician 4	OB/GYN 3	Family 4
Advance Practicing Degree	MD/DO 7	PA 1	APN 3
Years of Practice	0-5yrs 4	6-10yrs 1	11+yrs 6

Results of The Survey

- Most providers (90%) always calculated BMI during routine visits
- Only 9% of providers always asked about history of stress fractures (see chart below), and 54% never assessed for bone mineral density
- Majority of providers never evaluated for eating disorders or asked about dietary restrictions

When performing a well visit or Pre-participation sport evaluation in active female patients aged 13-21…How often do you ask about history of stress reaction/fractures?



Discussion

- **Conclusions:** There is a significant gap between expert-based recommendations and current practices for screening of the Triad and managing female patients with the diagnosis in primary care practices
- **Implications:** A expert-based toolkit that contain screening tools and other useful resources may address the identified gaps, standardize practice and improve care for young active female patients
- Further projects are needed to assess the effectiveness of the toolkit in improving practice and reducing the Triad-related comorbidities

Scan QR Code For References and Contact Information