
ATHLETIC TRAINING AND OUR ROLES WORKING WITH THE DEAF AND HARD-OF-HEARING COMMUNITY

Goals for this presentation:

- Understand the practice of athletic training
- Explore athletic trainers' role on the interdisciplinary team

DISCLOSURES

Financial Relationship Disclosures:

- Receives Salary for Employment at Central Michigan University

Non-financial Relationship Disclosures:

- Member of National Athletic Trainers Association District 4 Executive Board

All thoughts, ideas, or answers to questions presented today are my own and do not reflect the stance of the NATA, District 4, or Central Michigan University



UNDERSTANDING THE PRACTICE OF ATHLETIC TRAINING



BOC PRACTICE ANALYSIS



BOARD OF CERTIFICATION
FOR THE ATHLETIC TRAINER

- The BOC Practice Analysis identifies essential knowledge and skills for the athletic training profession and serves as a blueprint for exam development and continuing competence programming.

THE DOMAINS OF ATHLETIC TRAINING

- Domain I: Risk Reduction, Wellness & Health Literacy
- Domain II: Assessment, Evaluation & Diagnosis
- Domain III: Critical Incident Management
- Domain IV: Therapeutic Intervention
- Domain V: Health Administration & Professional Responsibility

DOMAIN I: RISK REDUCTION, WELLNESS & HEALTH LITERACY

Promoting healthy lifestyle behaviors with effective education and communication to enhance wellness and minimize the risk of injury and illness

- Reducing risk of injury reduces morbidity & cost, & increases the QoL
- Requires general knowledge (e.g., anatomy, exercise physiology, biomechanics, health) & specific workplace knowledge (e.g., sport requirements, equipment fitting, OSHA regulations, environmental considerations)
- In risk reduction, risks are identified, interventions or plans are implemented, results are reviewed, & the plan is further revised
- Athletic Trainers identify & understand intrinsic (i.e., patient history, demographics, education level) & extrinsic (i.e., environmental, social, sport specific) factors that are relevant to the client, patient, or population

DOMAIN II: ASSESSMENT, EVALUATION & DIAGNOSIS

Implementing systematic, evidence-based assessments and evaluations to formulate valid clinical diagnoses and differential diagnoses to determine a patient's plan of care

- Athletic Trainers must first understand the nature of a patient's health condition & their goals & preferences
- Athletic Trainers conduct assessments & evaluations using clinical expertise that integrates best available evidence, clinical experience, & the patient values
- Athletic Trainers use clinical judgement to obtain a thorough & personalized patient history, appraise confounding data, recognize varied health conditions, & evaluate & prioritize relevant examination, assessment, & diagnostic techniques

DOMAIN III: CRITICAL INCIDENT MANAGEMENT

Integrating best practices in immediate and emergency care for optimal outcomes

- Athletic Trainers & frequently react/respond to a variety of emergency situations
- Athletic Trainers have a responsibility to identify & use evidence-based standards of care in preparation & management
- Preparation begins prior to an immediate & emergency through development of an EAP
- Identifying emergency personnel, equipment, transportation, communication & steps to follow during emergent situations
- When an EAP is implemented, an Athletic Trainers must triage & manage the situation using best practices, followed by making appropriate & timely transfer of care or referral
- Athletic Trainers must have ability to maintain a high level of preparation & proficiency in all aspects of immediate & emergency care

DOMAIN IV: THERAPEUTIC INTERVENTION

Rehabilitating individuals with a health condition with the goal of achieving optimal activity and participation levels based on core concepts using the applications of therapeutic exercise, modality devices, and manual techniques

- Athletic Trainers provide a variety of therapeutic interventions (e.g., therapeutic exercise, therapeutic modalities & devices, manual therapy, & education) to treat & rehabilitate with the goal of achieving optimal levels of function, health, fitness & wellness for their patients
- Selection of treatment techniques, practices, & procedures are made by the Athletic Trainer using evidence-based principles in collaboration with the patient and a physician & in compliance with legal & ethical standards
- Specific parameters for each intervention are chosen & modified based upon current assessment findings, response to treatment, progress toward identified goals & other factors (e.g., age, gender, culture, psychosocial issues)
- Along with the plan of care, records are recorded through legally defensible documentation

DOMAIN V: HEALTH ADMINISTRATION & PROFESSIONAL RESPONSIBILITY

Integrating best practices in policy construction and implementation, documentation and basic business practices to promote optimal patient care and employee well-being

- Athletic Trainers must assume administrative roles to accomplish effective/efficient delivery of healthcare
- Within these roles Athletic Trainers assess organizational & individual outcomes using quality improvement analysis.
- Athletic Trainers then must develop appropriate policies, procedures, and plans to address organizational needs



ATHLETIC TRAINERS' ROLE ON THE TEAM

COLLABORATING FOR OUR PATIENTS



WELLNESS: THE ISSUE WE FACE

- Relative to their hearing peers, adolescents with hearing loss were 40% less likely to engage in 1–3 days/week of physical activity, 43% less likely to engage in 4–6 days/week of physical activity, and 33% less likely to meet physical activity guidelines.
- Further, adolescents with hearing loss were 31% less likely to participate in sports.
- Sports participation, but not physical activity, was associated with attenuated likelihood of experiencing adverse psychosocial outcomes in adolescents with hearing loss, suggesting unique characteristics of sports participation confer protection of psychosocial health. Increasing access to and reducing barriers to engagement in sports should be prioritized to improve psychosocial health in adolescents with hearing loss.
- Adjustments may need to be made to allow for access to the audible elements of the sport.

(DeLuca & Rupp, 2022)

WELLNESS: POSSIBLE IMPACT WE CAN HAVE

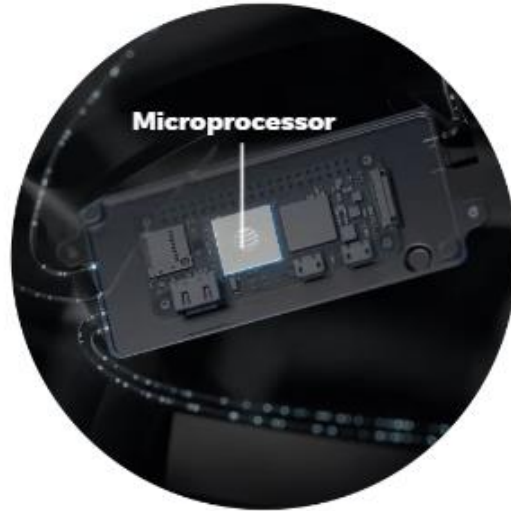
- Communication strategies like sign language, lip reading, written text, and advance agreements can facilitate participation. Visual and technical supports like posters, videos, and demonstrators also help.
- The environment should be optimized for communication - good lighting, minimizing background noise, etc.
- Having a supportive and collaborative environment facilitates participation.
- Professionals delivering physical activity services need specific training on D/HH needs.

AT&T'S 5G HELMET FOR GALLAUDET UNIVERSITY USED 10/7/23



1

From the sidelines, coach Chuck Goldstein uses a tablet to select a play.



2

A microprocessor on the back of the quarterback's helmet receives the play call.



3

The microprocessor sends the play call — in this case "Flex 212 Switch" — to a lens in the quarterback's line of sight.



CRITICAL INCIDENT MANAGEMENT: PREPARATION

- Athletes who are D/HH may have decreased concussion knowledge and attitudes compared to previous groups reported in the literature
- Additionally, the correlation between knowledge and attitudes for athletes who are D/HH was stronger compared to previous groups
- The decrease in concussion knowledge and attitude scores in athletes who are D/HH compared to athletes who are hearing may be due to a lack of concussion education or effective education.
- Individuals who are D/HH tend to have limited access to health-related information secondary to information not being available in American Sign Language, or not available in individuals' preferred mode of communication as well as overall low health literacy.
- Additionally, individuals who are D/HH do not have the benefit of gaining health-related information through auditory mass media forms of communication, which may put athletes who are D/HH at a concussion knowledge deficit.

(Brancaleone & Shingles, 2021)

QUALITY IMPROVEMENT

- Communication between athletic trainers and athletes who are DHH is vital in delivering effective and efficient medical care.
- Research suggest that communication between athletic trainers and athletes who are DHH should be individualized to provide appropriate, efficient, and effective health care.
- What we are doing (Written English and lip reading) have not been shown to be effective communication methods.
- Athletic trainers should be encouraged to use the modes of communication that are preferred by their athletes who are deaf or hard-of-hearing.
- By establishing an understanding with these athletes, athletic trainers can have the appropriate tools to communicate effectively and efficiently - One hallmark of athletic trainers in healthcare is our ability to provide this level of individualized care as in most traditional settings we have significant time to develop this with our patients.

(Brancaleone & Shingles, 2015)

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