Prioritizing the Patient Perspective

Tamara Valovich McLeod, PhD, ATC, FNATA
John P. Wood, DO, Endowed Chair for Sports Medicine
Professor and Director, Athletic Training Programs
Research Professor, School of Osteopathic Medicine in Arizona

ATSU | A.T. Still University
FIRST IN WHOLE PERSON HEALTHCARE

Conflict of Interest

In compliance with continuing education requirements, all presenters must disclose any financial or other associations with companies to which they have a direct link and/or financial relationship that is related to the topic/content of their presentation.

The presenter has no conflicts of interest to report

Objectives

- Discuss patient-centered care and whole person healthcare
- Describe how the social determinants of health influence patient outcomes in athletic healthcare
- Identify patient-reported outcomes instruments to assist clinicians in obtaining the patient voice

Our Patients

Care is collaborative, coordinated, and accessible

The right care is provided at the right time and the right place

Care focuses on physical comfort as well as emotional well-being

Patients and their families are an expected part of the care team and play a role in decisions

Patient and family preferences, values, cultural traditions, and socioeconomic conditions are respected

The presence of family members in the care setting is encouraged and facilitated

Information is shared fully and in a timely manner so that patients and their family members can make informed decisions

NEJM Catalyst, 2017

Journal of Athletic Training 2008;43(4):428–436
© by the National Athletic Trainers' Association, Inc
www.nata.org/jat

literature review

Using Disablement Models and Clinical Outcomes Assessment to Enable Evidence-Based Athletic Training Practice, Part I: Disablement Models

Alison R. Snyder, Ph
Tamara C. Valovich
Lori A. Michener, Ph

*A. T. Still University, Mesa, A

Journal of Athletic Training 2008;43(4):437–445
© by the National Athletic Trainers' Association, Inc
www.nata.org/jat

literature review

Using Disablement Models and Clinical Outcomes Assessment to Enable Evidence-Based Athletic Training Practice, Part II: Clinical Outcomes Assessment

Tamara C. Valovi
John T. Parsons,
Lori A. Michener,

*A. T. Still University, Me

Journal of Athletic Training 2008;43(4):446–448
© by the National Athletic Trainers' Association, Inc
www.nata.org/jat

commentary

Change Is Hard: Adopting a Disablement Model for Athletic Training

John T. Parsons, MS, ATC; Tamara C. Valovich McLeod, PhD, ATC, CSCS; Alison R. Snyder, PhD, ATC; Eric L. Sauers, PhD, ATC, CSCS

A. T. Still University, Mesa, AZ

2008

Clinical Outcomes Research Education for Athletic Trainers
CORE-AT

Disablement Models

- Standard components of clinical practice in most healthcare professions
- Conceptual schemes or scientific models that form the basic architecture for clinical practice, research, and healthcare policy

Table 2. Disablement Models: Components and Comparison[a]

Model	Origin	Organ	*Person Level*	*Societal Level*	*Other Domains*
Nagi,[20] 1965	Pathology	Impairment	*Functional limitations*	*Disability*	
National Center for Medical Rehabilitation Research,[33] 1993	Pathophysiology	Impairment	*Functional limitations*	*Disability*	*Societal limitations*
National Center for Medical Rehabilitation Research,[35] 2006	Pathophysiology	Organ dysfunction	*Task performance*	*Roles*	
World Health Organization International Classification of Functioning,[36,37] 2001	Health condition	Body structure and function	*Activity*	*Participation*	*Environmental and personal factors*

[a] Italics indicate dimensions that address health-related quality of life.

Snyder Valier, 2008

THE ICF MODEL

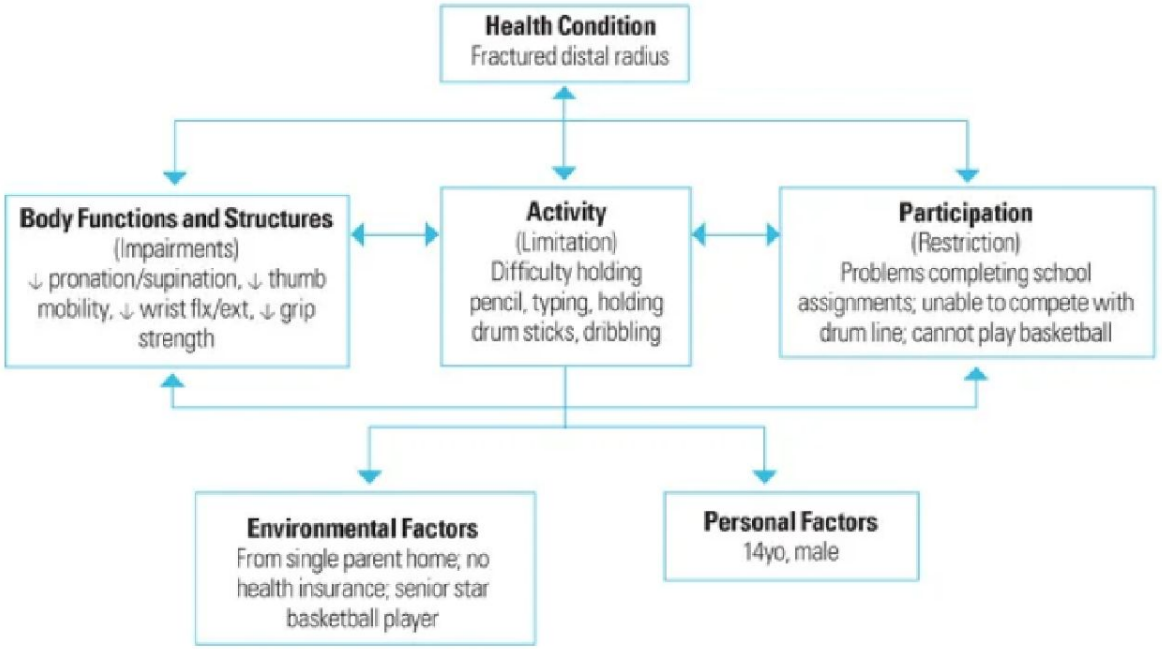
A FRAMEWORK FOR ATHLETIC TRAINING CLINICAL PRACTICE

By Sara Nottingham, EdD, ATC, Carrie Meyer, EdD, ATC, and Barbara Blackstone, MSS, ATC

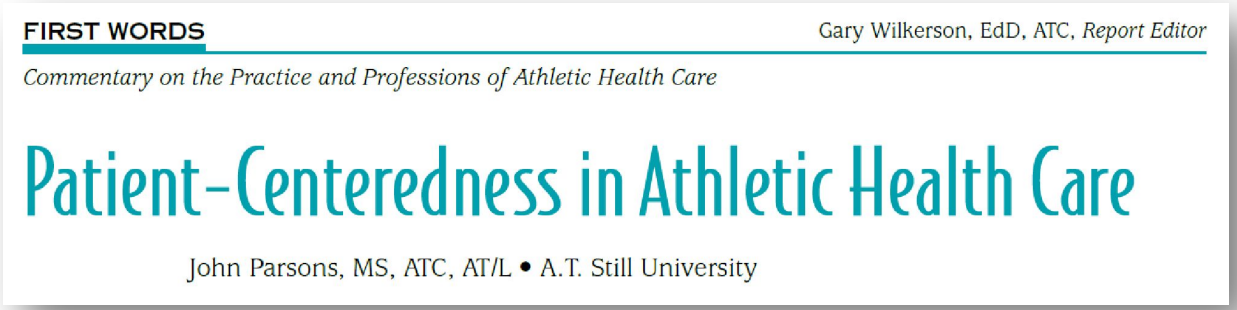
2015

In 2012, the NATA Board of Directors approved the Future Directions in Athletic Training Education document[1] that outlined 14 recommendations developed by the Executive Committee for Education (ECE). Recommendation No. 10 suggested adoption of a practice model utilizing contemporary disablement model language. In December 2015, after recommendation by ECE, the NATA Board of Directors approved the adoption of the World Health Organization's International Classification of Functioning, Disability and Health (ICF)[2] with the Children and Youth (ICF-CY) updates.

FIGURE 1: ICF MODEL PATIENT EXAMPLE



What Does Patient-Centered Care Look Like in Athletic Healthcare


FIRST WORDS

Gary Wilkerson, EdD, ATC, *Report Editor*

Commentary on the Practice and Professions of Athletic Health Care

Patient-Centeredness in Athletic Health Care

John Parsons, MS, ATC, AT/L • A.T. Still University

- The Uniform Terminology Project of the National Athletic Trainers' Association established that the proper name for those receiving athletic training services is *patient*
- Patient – Coach – Athletic trainer relationship can challenge patient-centeredness
  - Morally obligated to defend the patient
- All patients, regardless of their age, level of competition, or athletic skill level are all worthy of equal attention

Patient-Centered Care and Conflict of Interests in Sports Medicine-Athletic Training

Gary Wilkerson, EdD, ATC • University of Tennessee at Chattanooga

10 Principles to Guide Administration of Sports Medicine – Athletic Training Services

1. The physical and psychosocial welfare of the individual athlete-patient must always be the highest priority of the athletic trainer and the team physician.
2. Any program that delivers athletic training services, including "outreach" services provided to high schools or other athletic organizations, must always have a designated medical director.
3. Sports medicine physicians and athletic trainers must always practice in a manner that integrates the best current research evidence with the preferences and values of each athlete-patient.
4. The clinical responsibilities of an athletic trainer must always be performed in a manner that is consistent with the written or verbal instructions of a physician or standing orders and clinical management protocols that have been approved by a program's designated medical director.
5. Decisions that affect the current or future health status of an athlete-patient who has an injury or illness must only be made by a properly credentialed health professional (e.g., a physician or an athletic trainer who has a physician's authorization to make the decision).
6. In every case that a physician has granted an athletic trainer the discretion to make decisions relating to an individual athlete's injury management or sport participation status, all aspects of the care process and changes in the patient's disposition must be thoroughly documented.
7. To minimize the potential for occurrence of a catastrophic event or development of a disabling condition, coaches must not be allowed to impose demands that are inconsistent with guidelines and recommendations established by sports medicine - athletic training professional organizations.
8. An inherent conflict of interests exists when an athletic trainer's role delineation and employment status are primarily determined by coaches or athletic program administrators, which should be avoided through a formal administrative role for a physician who provides medical direction.
9. An athletic trainer's professional qualifications and performance evaluations must not be primarily judged by administrative personnel who lack healthcare expertise, particularly in the context of hiring, promotion, and termination decisions.
10. Universities, colleges, and high schools should adopt an administrative structure for delivery of integrated sports medicine and athletic training services to minimize the potential for any conflict of interests that could adversely affect the health and well-being of student-athletes.

International Journal of Environmental Research and Public Health

MDPI

Article

The Integration of Patient-Centered Care and the Biopsychosocial Model by Athletic Trainers in the Secondary School Setting

Adriana M. Mendoza *, Matthew J. Drescher and Lindsey E. Eberman

Table 3. Global Perceptions of Athletic Trainer Patient-Centered Care Tool Items and Responses [a].

Prompt: As an Athletic Trainer in the Secondary School Setting, I Feel I . . .	Score [b]	No. of Participants n/N, %				
	Mean ⊥ SD (Mode)	Strongly Disagree	Disagree	Agree	Strongly Agree	Unsure
Provide culturally competent care for patients.	3.5 + 0.8 (4)	6/351, 1.7	0/351, 0.0	143/351, 40.7	196/351, 55.8	6/351, 1.7
Deliver care that is respectful of my patients' preferences.	3.5 + 0.6 (4)	3/351, 0.9	1/351, 0.3	150/351, 42.7	194/351, 55.3	3/351, 0.9
I'rovide care that is respectful of the patient's preferences	3.4 ± 0.8 (4)	3/351, 0.9	1/351, 0.3	165/351, 47.0	173/351, 49.3	9/351, 2.6
Inform my patients of their clinical status.	3.6 + 0.6 (4)	2/351, 0.6	0/351, 0.0	134/351, 38.2	212/351, 60.4	3/351, 0.9
Promote a healthy lifestyle for my patients.	3.4 ± 0.7 (4)	3/351, 0.9	1/351, 0.3	166/351, 47.3	174/351, 49.6	7/351, 2.0
Provide education and information to patients.	3.5 + 0.6 (3)	1/351, 0.3	0/351, 0.0	176/351, 50.1	171/351, 48.7	3/351, 0.9
. Address my patients' pain, ADLs, and environment.	3.4 ± 0.7 (3)	1/350, 0.3	2/350, 0.6	184/350, 52.6	155/350, 44.3	8/350, 2.3
Recognize any conflicts of interest that could impact patients	2.9 ± 1.2 (3)	1/351, 0.3	2/351, 0.6	193/351, 55.0	113/351, 32.2	42/350, 12.0
Coordinate other care for my patients.	3.1 ± 0.9 (3)	2/351, 0.6	18/351, 5.1	194/351, 55.3	119/351, 33.9	18/351, 5.1
. Have not made my patients participate competition when deemed "medically out of participation".	3.7 ± 0.6 (4)	4/351, 1.1	4/351, 1.1	79/351, 22.5	261/351, 74.4	3/351, 0.9
. Address my patient's access to care.	2.8 + 1.1 (3)	3/351, 0.9	33/351, 9.4	199/351, 56.7	81/351, 23.1	35/351, 10.0
. Support inclusion of friends and family in decision-making.	3.4 + 0.8 (3)	1/351, 0.3	1/351, 0.3	174/351, 49.6	166/351, 47.3	9/351, 2.6
. Make decisions on patient care without influence from coaches.	3.5 ± 0.8 (4)	1/351, 0.3	3/351, 0.9	140/351, 39.9	198/351, 56.4	9/351, 2.6
. Address my patient's potential fears and anxieties.	3.3 ± 1.0 (3)	3/351, 0.9	4/351, 1.1	170/351, 48.4	155/351, 44.2	19/351, 5.4

Collegiate Student-Athletes' Perceptions of Patient Centered Care Delivered by Athletic Trainers

Ansley Smallen Redinger, DAT, LAT, ATC*;
Zachary K. Winkelmann, PhD, SCAT, ATC†;
Lindsey E. Eberman, PhD, LAT, ATC*

*Indiana State University, Terre Haute; †University of South Carolina, Columbia

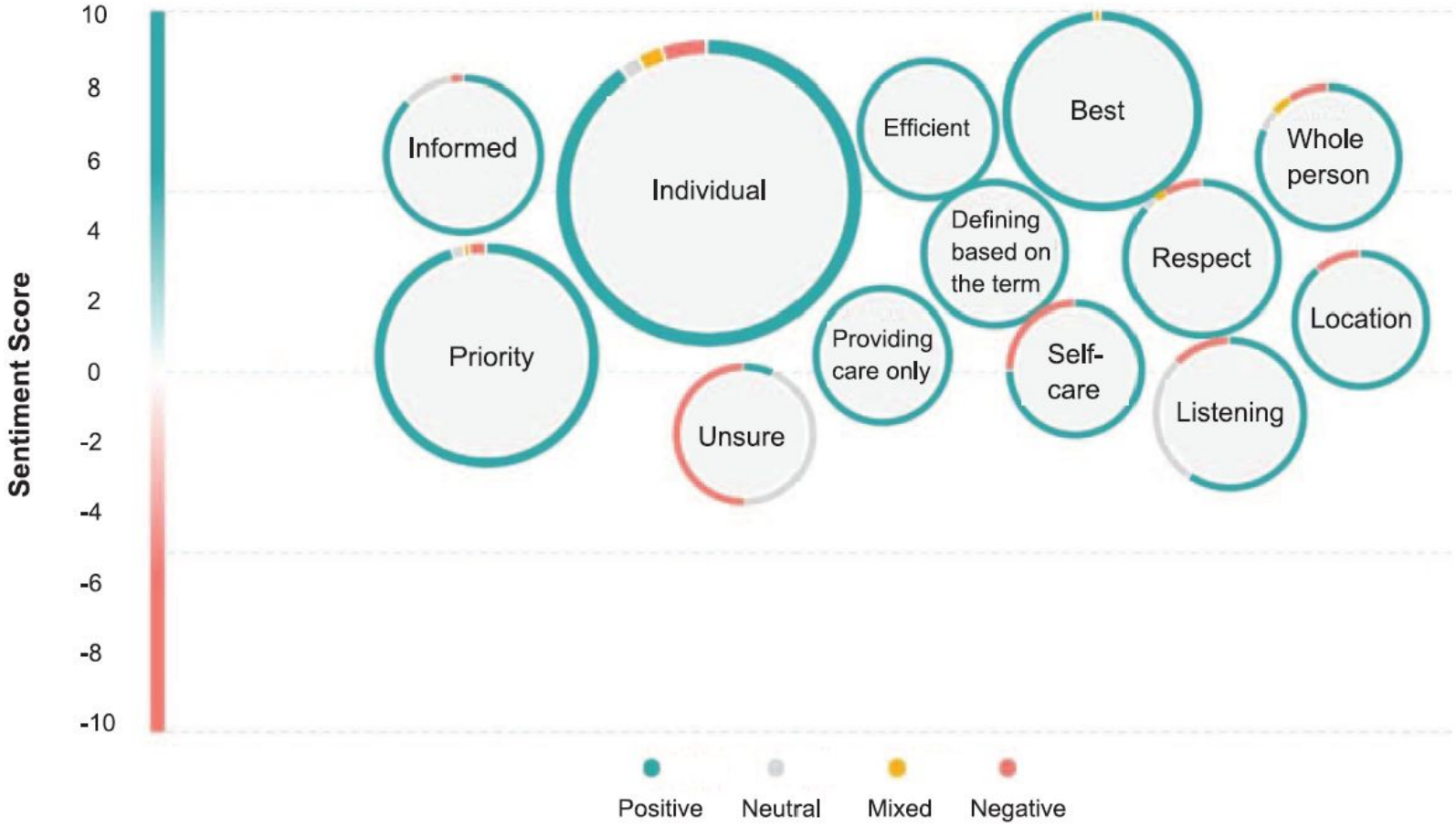


Figure. Text IQ topics from Qualtrics qualitative analysis and mean sentiment score.

Editorial

Financial Health Literacy and the Shared Decision-Making Process in Healthcare

Caitlin S. O'Mara [1], Justin P. Young [2] and Zachary K. Winkelmann [1,*]

Table 1. Skills of Patient-Centered Care.

Patient-Centered Care Key Component	Specific Skills
Share power and responsibility with patients and caregivers.	• Discuss short and long-term goals specific to both their healthcare visit and return to work, life, and sport • Acknowledging those around you that may have a role or responsibility in the care and creating support systems • Promote self-care • Managing one's pain, comfort, assistance with living, and reducing fears or anxiety relative to health and healthcare • Respect • Discuss time available before starting the interaction
Communicate with patients in a shared and fully open manner.	• Coordinate and integrate care • Promote team-based care with multiple people and providers • Address health literacy for each individual and their support system
Consider patients' individuality, emotional needs, values, and life issues.	• Address each person's social determinants of health • Consider how marginalized communities may experience health and healthcare differently • Integrate whole-person, holistic healthcare
Advocate and reach patient, caretakers, and other social support systems in the community	• Use person-first language when addressing or discussing a patient • Summarize information gathered often and advocate for clear understanding before continuing with the examination
Enhance prevention and health promotion	• Inform others on the process of care including injury and illness prevention • Promote and optimize wellness in all dimensions of health

International Journal of
Environmental Research and Public Health

MDPI

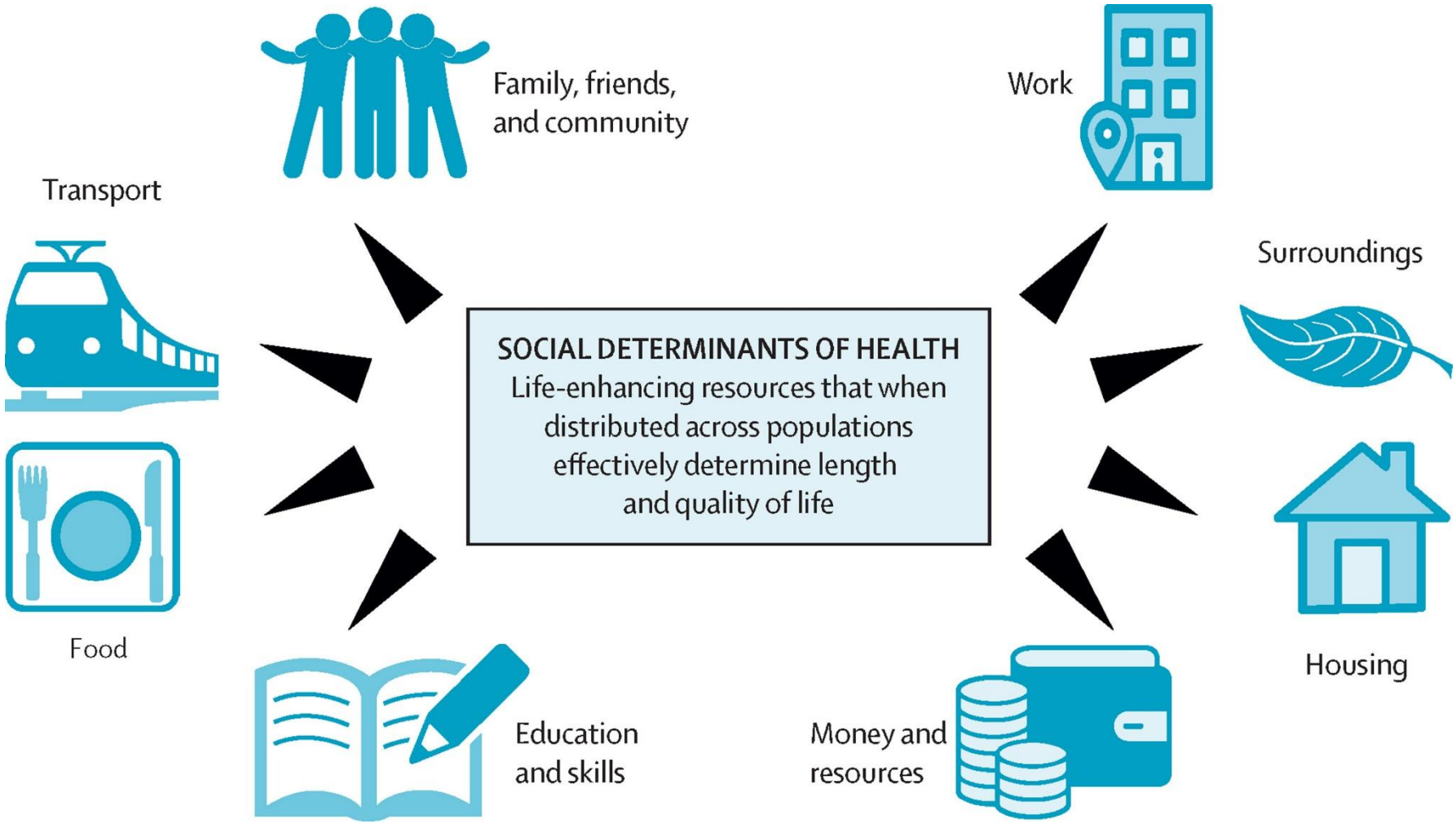
Article

The Role of Title 1 Secondary School Athletic Trainers in the Primary and Patient-Centered Care of Low Socioeconomic Adolescents

Nicolette A. Harris [1,*] and Michelle L. Odai [2]

Table 6. Strategies for facilitating patient-centered care.

Strategy	Supporting Quotation
Establishing rapport	"I don't know if I had any formal training in being able to recognize it [lacerated spleen] other than just knowing this individual and knowing and seeing the incident happen and just recognizing that this was not right."—Marco
Building trust	"I always advocate for myself, let the parents know that they can trust me in helping the healing process with their child."—Reese
Treating with respect	"I think this is the best way to teach them about healthcare—through us—respecting their autonomy and having it be self-driven care. I can help facilitate that and meet their goals."—RM
Being available	"I feel like going out to practice and just having very nonchalant conversations with people gives students sometimes an opportunity to be like 'hey, when it's not super busy, can I talk to you about this one thing' and address an existing question or concern."—NewMom
Providing comfort	"I'm gonna offer this [resource] before you even have to say anything so that you know you feel comfortable talking with me about it."—NewMom
Staying vigilant	"I think our main goal is really to be vigilant to not invalidate someone's symptoms or feelings when they do come to us with something that is non-orthopedic. The main thing is really just being vigilant, knowing who our athletes are, knowing where they come from, and understanding them."—Marco


Family, friends, and community
Work
Transport
Surroundings
SOCIAL DETERMINANTS OF HEALTH
Life-enhancing resources that when distributed across populations effectively determine length and quality of life
Food
Housing
Education and skills
Money and resources

Social Determinants of Health: Considerations for Athletic Health Care

Kelsey J. Picha, PhD, ATC; Cailee E. Welch Bacon, PhD, ATC; Clinton Normore, MBA; Alison R. Snyder Valier, PhD, ATC

Department of Interdisciplinary Health Sciences, A.T. Still University, Mesa, AZ

- Athletic trainers have the potential to reduce the influence of SDOH on patients through
  - Awareness of their effects on health outcomes
  - Efforts to intervene when appropriate
- Need to increase research efforts on the role of SDOH in athletic health care
- Improved understanding of health policy drivers of the SDOH is important

[VIEWPOINT]

ZACHARY D. RETHORN, DPT[1] • CHAD COOK, PT, MBA, PhD, FAPTA[1,2] • JENNIFER C. RENEKER, MSPT, PhD[3]

Social Determinants of Health: If You Aren't Measuring Them, You Aren't Seeing the Big Picture

J Orthop Sports Phys Ther 2019;49(12):872-874. doi:10.2519/jospt.2019.0613

Social & Economical (40%)

Environmental (10%)

Behavioral (30%)

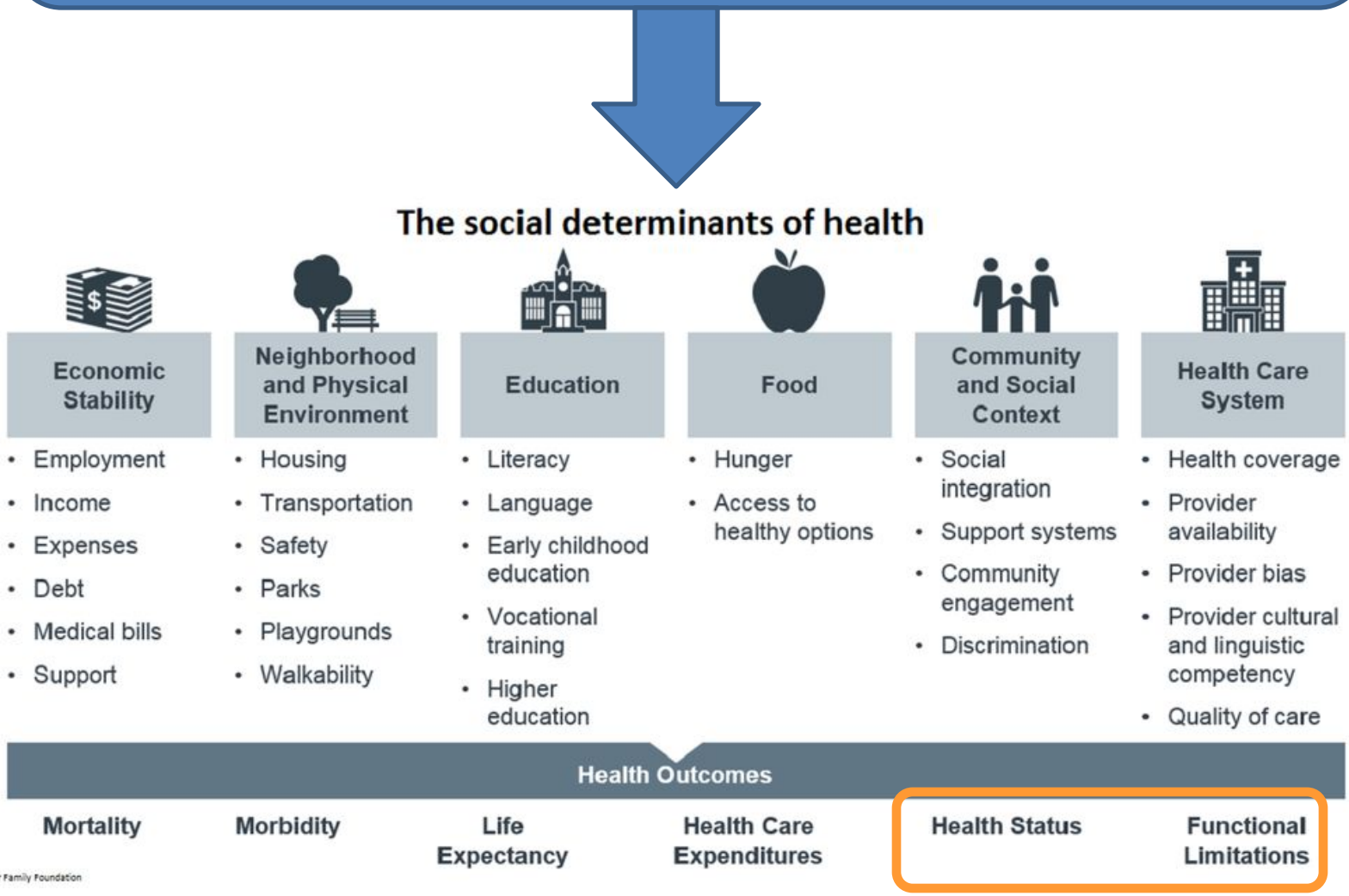
COMMENTARY Open Access

The time is now: why we must identify and address health disparities in sport and recreation injury

Charlotte Baker[1*], Oziomachukwu Chinaka[1] and Elizabeth C. Stewart[2]

"How we medically handle injuries after they occur is driven by what resources are available. A high school basketball player on Medicaid or a parent or guardian's high deductible health insurance plan and no disposable income who breaks their leg may eventually return to play, but the time to return could be affected by the affordability, distance, and timing of care."

Patient-Centered Care



Measuring the Patient Perspective

SDOH Inventories

- AAFP Social Needs Screening Tool
- The Accountable Health Communities Health-Related Social Needs Screening Tool (CMS)
- Healthy Leads Social Needs Screening Toolkit
- Institute of Medicine 25-item Checklist
- Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences

AAFP
AMERICAN ACADEMY OF FAMILY PHYSICIANS

Social Needs Screening Tool

HOUSING

1. Are you worried or concerned that in the next two months you may not have stable housing that you own, rent, or stay in as a part of a household?[1]
   - ☐ Yes
   - ☐ No

2. Think about the place you live. Do you have problems with any of the following? (check all that apply)[2]
   - ☐ Bug infestation
   - ☐ Mold
   - ☐ Lead paint or pipes
   - ☐ Inadequate heat
   - ☐ Oven or stove not working
   - ☐ No or not working smoke detectors
   - ☐ Water leaks
   - ☐ None of the above

FOOD

3. Within the past 12 months, you worried that your food would run out before you got money to buy more.[3]
   - ☐ Often true
   - ☐ Sometimes true
   - ☐ Never true

4. Within the past 12 months, the food you bought just didn't last and you didn't have money to get more.[3]
   - ☐ Often true
   - ☐ Sometimes true
   - ☐ Never true

TRANSPORTATION

5. Do you put off or neglect going to the doctor because of distance or transportation?[4]
   - ☐ Yes
   - ☐ No

UTILITIES

6. In the past 12 months has the electric, gas, oil, or water company threatened to shut off services in your home?[4]
   - ☐ Yes
   - ☐ No
   - ☐ Already shut off

CHILD CARE

7. Do problems getting child care make it difficult for you to work or study?[5]
   - ☐ Yes
   - ☐ No

EMPLOYMENT

8. Do you have a job?[6]
   - ☐ Yes
   - ☐ No

EDUCATION

9. Do you have a high school degree?[6]
   - ☐ Yes
   - ☐ No

FINANCES

10. How often does this describe you? I don't have enough money to pay my bills:[7]
    - ☐ Never
    - ☐ Rarely
    - ☐ Sometimes
    - ☐ Often
    - ☐ Always

PERSONAL SAFETY

11. How often does anyone, including family, physically hurt you?[8]
    - ☐ Never (1)
    - ☐ Rarely (2)
    - ☐ Sometimes (3)
    - ☐ Fairly often (4)
    - ☐ Frequently (5)

12. How often does anyone, including family, insult or talk down to you?[8]
    - ☐ Never (1)
    - ☐ Rarely (2)
    - ☐ Sometimes (3)
    - ☐ Fairly often (4)
    - ☐ Frequently (5)

The EveryONE Project®
Advancing health equity in every community

RECOMMENDED SCREENING TOOL

Example introductory text: This form is available in other languages. If you do not speak English, call (800) 555-6666 (TTY: (800) 777-8888) to connect to an interpreter who will assist you at no cost.

Name: _____ Phone number: _____

Preferred Language: _____ Best time to call: _____

		Yes / No
	In the last 12 months*, did you ever **eat less than you felt you should** because there wasn't enough money for food?	Y N
	In the last 12 months, has the **electric, gas, oil, or water company threatened to shut off your services** in your home?	Y N
	Are you worried that in the next 2 months, you **may not have stable housing?**	Y N
	Do problems getting **child care make it difficult for you to work or study?** *(leave blank if you do not have children)*	Y N
	In the last 12 months, have you **needed** to see a doctor, **but could not because of cost?**	Y N
	In the last 12 months, have you ever had to go without health care because you didn't have **a way to get there?**	Y N
	Do you ever need help **reading hospital materials?**	Y N
	Do you often feel that **you lack companionship?**	Y N
	Are any of your needs urgent? For example: I don't have food tonight, I don't have a place to sleep tonight	Y N
	If you checked YES to any boxes above, **would you like to receive assistance** with any of these needs?	Y N

**time frames can be altered as needed*

FOR STAFF USE ONLY:
- Place a patient sticker to the right
- Give this form to the patient with patient packet
- PRINT your name and role below.

Place patient sticker here

RECOMMENDED SCREENING TOOL (SPANISH)

This is a Spanish version of the sample social needs screening tool – please tailor it based on your population, scope, and goals. This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Example introductory text: Este formulario está disponible en otros idiomas. Si no habla inglés, llame al (800) 555-6666 (TTY: (800) 777-8888) para conectarse con un intérprete que le ayudará gratis.

Nombre: _____ Teléfono: _____

Idioma preferido: _____ Mejor momento para llamarle: _____

		Sí / No
	En los últimos 12 meses, **¿comió menos de lo que creía que necesitaba** porque no le alcanzaba el dinero para la comida?	S N
	En los últimos 12 meses, **¿lo(a) amenazó con suspenderle el servicio** en su casa la compañía de electricidad, gas, combustible o agua?	S N
	¿Le preocupa **quedarse sin vivienda estable** en los próximos dos meses?	S N
	¿Conseguir cuidado de niños le **dificulta trabajar o estudiar?** (Dejar en blanco si no tiene niños)	S N
	En los últimos 12 meses, ¿necesitó ver a un médico **pero no pudo por el costo?**	S N
	En los últimos 12 meses, ¿alguna vez dejó de recibir cuidados de salud porque **no tenía cómo llegar al sitio?**	S N
	¿Alguna vez necesita ayuda para **leer los materiales del hospital?**	S N
	A menudo **siento que me falta** compañía.	S N
	¿Es urgente alguna de estas necesidades? Por ejemplo: No tengo qué comer este noche, no tengo dónde dormir esta noche.	S N
	Si marcó que sí a cualquiera de las casillas anteriores, **¿le gustaría recibir ayuda** con cualquiera de estas necesidades?	S N

PARA USO EXCLUSIVO DEL PERSONAL/FOR STAFF USE ONLY:
- Place a patient sticker to the right
- Give this form to the patient with patient packet
- PRINT your name and role below.

Place patient sticker here

Patient-Report Outcome Measures (PROMs)

General

- Variety of conditions or injuries
- Multidimensional
- General overview of HRQOL
- Less responsive to change

Specific

- Focus on a specific injury, disease, region, or site
- Intended to compliment general measures
- More responsive to change
- HIT-6, POMS, BDI

Single-Item Measures

Global Rating of Change

- Patient-perceived changes in general health status
- scale of 1 (very great deal worse) to 9 (very great deal better)

Global Rating of Daily Activities

- Ability to complete daily activities
- Ranged from 0 (no difficulty, has not affected) to 6 (cannot perform)

Global Rating of Athletic Activities

- Ability to complete athletic activities
- Ranged from 0 (no difficulty, has not affected) to 6 (cannot perform)

Valier, 2016

Selecting an Outcome Measure

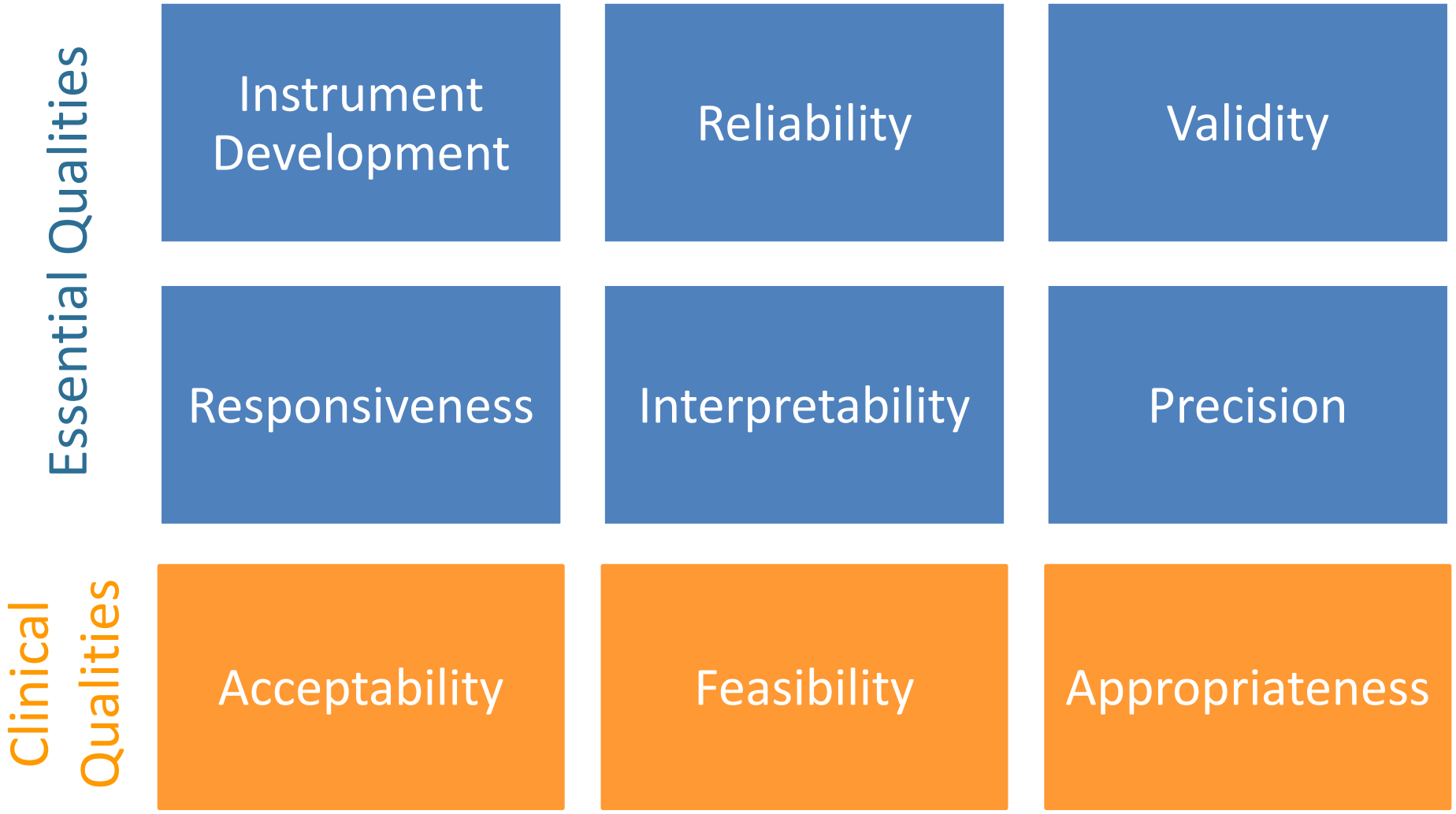
- Generic and Specific
  - Population of interest (adult v. adolescent)
  - Specific based on patient's primary symptoms
  - Recall duration of instrument
- Administration
  - Ability to support license agreement
  - Technology for adaptive measures
  - Timing (initial/discharge v. intervals)
  - Format (paper/online)

Be prepared to provide additional resources, education, or support for endorsed items that are of concern.

If you ask about abuse at home, feeling unsafe, or mental health concerns and a patient checks the ‘yes’ box...you can't ignore it at that point.

Picha, Personal Communication, 2024

Criteria for PROM Selection



Patient-Reported Outcome Measures in Sports Medicine: A Concise Resource for Clinicians and Researchers

Kenneth C. Lam, ScD, ATC; Ashley N. Marshall, PhD, ATC; Alison R. Snyder Valier, PhD, ATC, FNATA

Department of Interdisciplinary Health Sciences, A.T. Still University, Mesa, AZ. Dr Marshall is now in the Department of Health and Exercise Science, Appalachian State University, Boone, NC.

Table 1. Concise Summary of Included Patient-Reported Outcome Measures

	Instrument Essentials				Clinical Utility		
	Development	Reliability	Validity	Responsiveness	Acceptability	Feasibility	Appropriateness
Neck							
Neck Disability Instrument	✓	✓	✓	✓	✓	✓	✓
Head							
Dizziness Handicap Index	✓	✓	✓	✓	✓	✓	✓
Shortened Headache Impact Test	✓	✓	✓	✓	✓	✓	✓
Abbreviated Profile of Mood States Questionnaire	✓[b]	✓	✓	X	✓	✓	✓
Generic outcome measures							
Disablement of the Physically Active Scale	✓[b]	✓	✓	✓	✓	✓	✓
Musculoskeletal Function Assessment	✓	✓	✓	✓	?	?	?
Musculoskeletal Function Assessment–Short	✓	✓	✓	✓	?	?	?
Pediatric Quality of Life Inventory	✓	✓	✓	✓	✓	✓	✓
Short Form 36	✓	✓	✓	✓	✓	✓	✓
Short Form 12	✓	✓	✓	✓	✓	✓	✓
Single-item outcome measures							
Numeric Pain Rating Scale	X	✓	✓	✓	✓	✓	✓
Global Rating of Change	X	✓	✓	✓	✓	✓	✓
Patient-Specific Functional Scale	✓	✓	✓	✓	✓	✓	✓

Patient-Reported Outcome Measures for Pediatric Patients With Sport-Related Injuries: A Systematic Review

Ashley N. Marshall, PhD, ATC*; Hayley J. Root, PhD, MPH, ATC†; Tamara C. Valovich McLeod, PhD, ATC‡§; Kenneth C. Lam, ScD, ATC‡

*Department of Health and Exercise Science, Appalachian State University, Boone, NC; †Department of Physical Therapy and Athletic Training, Northern Arizona University, Phoenix; ‡Department of Interdisciplinary Health Sciences and §Athletic Training Programs and School of Osteopathic Medicine in Arizona, A.T. Still University, Mesa

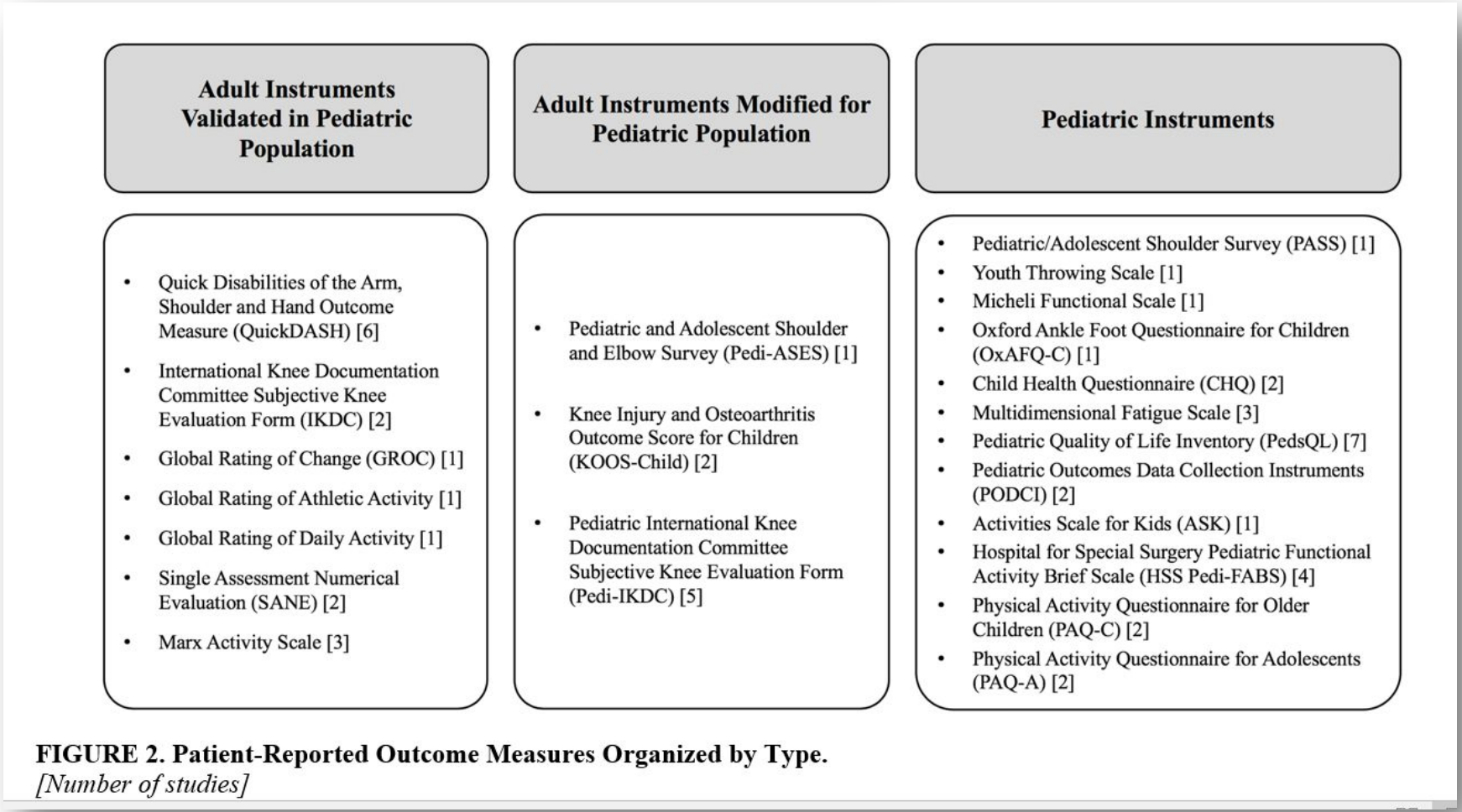


FIGURE 2. Patient-Reported Outcome Measures Organized by Type.
[Number of studies]

Table 1. Considerations for Clinical Utility: Acceptability

Region	Instrument	No. of Items	Score Range (Interpretation)	Time to Complete, min	Readability (Reading Ease; Reading Grade Level)
Upper extremity	Pediatric/Adolescent Shoulder Survey (PASS)	13	0–100	NR	85.0; 4.4
	Pediatric and Adolescent Shoulder and Elbow Survey (Pedi-ASES)	39	0–84 (↑ Score = better function)	NR	85.0; 4.2
	Quick Disabilities of the Arm, Shoulder and Hand outcome measure (QuickDASH)	11	0–100 (↑ Score = better function)	2	65.9; 7.9
	Youth Throwing Scale	18	18–90 (↑ Score = less pain or effect on HRQOL)	NR	73.1; 5.4
Lower extremity	International Knee Documentation Committee Subjective Knee Evaluation Form (IKDC)	10	0–100 (↑ Score = better function)	10	59.6; 9.5
	Knee Injury and Osteoarthritis Outcome Score for Children (KOOS-Child)	46	0–100 (↑ Score = fewer knee problems)	NR	82.8; 3.8
	Michelli Functional Scale	5	0–100 (↓ Score = less disability)	5–10	57.6; 9.5
	Oxford Ankle Foot Questionnaire for Children (OxAFQ-C)	14	0–100 (↑ Score = better function)	NR	74.3; 6.2
	Pediatric International Knee Documentation Committee Subjective Knee Evaluation Form (Pedi-IKDC)	10	0–100 (↑ Score = better function)	NR	90.3; 2.2
Generic	Child Health Questionnaire (CHQ)	87	0–100 (↑ Score = better health)	5–15	78.4; 4.4
	Multidimensional Fatigue Scale	18	0–100 (↑ Score = fewer fatigue symptoms and better HRQOL)	10–15	89.1; 3.0
	Pediatric Quality of Life Inventory (PedsQL)	23	0–100 (↑ Score = better HRQOL)	NR	93.9; 2.1
	Pediatric Outcomes Data Collection Instruments (PODCI)	83	0–100 (↑ Score = better HRQOL)	10–20	75.0; 4.3
Single item	Global Rating of Change (GROC)	1	0–9	NR	63.7; 7.0
	Global Rating of Athletic Activity	1	0–6	NR	55.3; 8.3
	Global Rating of Daily Activity	1	0–6	NR	59.0; 7.8
	Single Assessment Numerical Evaluation (SANE)	1	0–100 (↑ Score = better function)	NR	64.4; 8.3
Activity	Activities Scale for Kids (ASK)	30	0–100 (↑ Score = better function)	NR	91.2; 3.3
	Hospital for Special Surgery Pediatric Functional Activity Brief Scale (HSS Pedi-FABS)	8	1–30	NR	50.3; 7.9
	Marx Activity Scale	4	0–16 (↑ Score = higher level of activity)	NR	60.8; 8.3
	Physical Activity Questionnaire for Older Children (PAQ-C)	9	9–45 (↑ Score = higher level of activity)	20	76.8; 5.5
	Physical Activity Questionnaire for Adolescents (PAQ-A)	9	9–45 (↑ Score = higher level of activity)	10–15	77.3; 5.5

Abbreviations: HRQOL, health-related quality of life; NR, not reported.

Journal of Athletic Training 2013;48(2):233–241
doi: 10.4085/1062-6050-48.2.12

www.natajournals.org

original research

A Unique Patient Population? Health-Related Quality of Life in Adolescent Athletes Versus General, Healthy Adolescent Individuals

Kenneth C. Lam, ScD, ATC*; Alison R. Snyder Valier, PhD, ATC*†; R. Curtis Bay, PhD*; Tamara C. Valovich McLeod, PhD, ATC, FNATA*†

Key Points

- Adolescent athletes reported better health-related quality of life than their general, healthy adolescent peers, particularly in emotional functioning.
- As part of the overall evaluation, health care providers should consider whether a patient participates regularly in physical activity because that may affect baseline emotional well-being.
- Adolescent athletes appear to constitute a unique patient population for whom normative values on patient-related outcome instruments should be established.

Reference Values for the Pediatric Quality of Life Inventory and the Multidimensional Fatigue Scale in Adolescent Athletes by Sport and Sex

Alison R. Snyder Valier,*†‡§‖ PhD, ATC, FNATA, Cailee E. Welch Bacon,†‡§ PhD, ATC, R. Curtis Bay,‡ PhD, Eileen Molzen,‖ MA, CCRP, Kenneth C. Lam,†‡ ScD, ATC, and Tamara C. Valovich McLeod,†‡§ PhD, ATC, FNATA
Investigation performed at A.T. Still University, Mesa, Arizona, USA

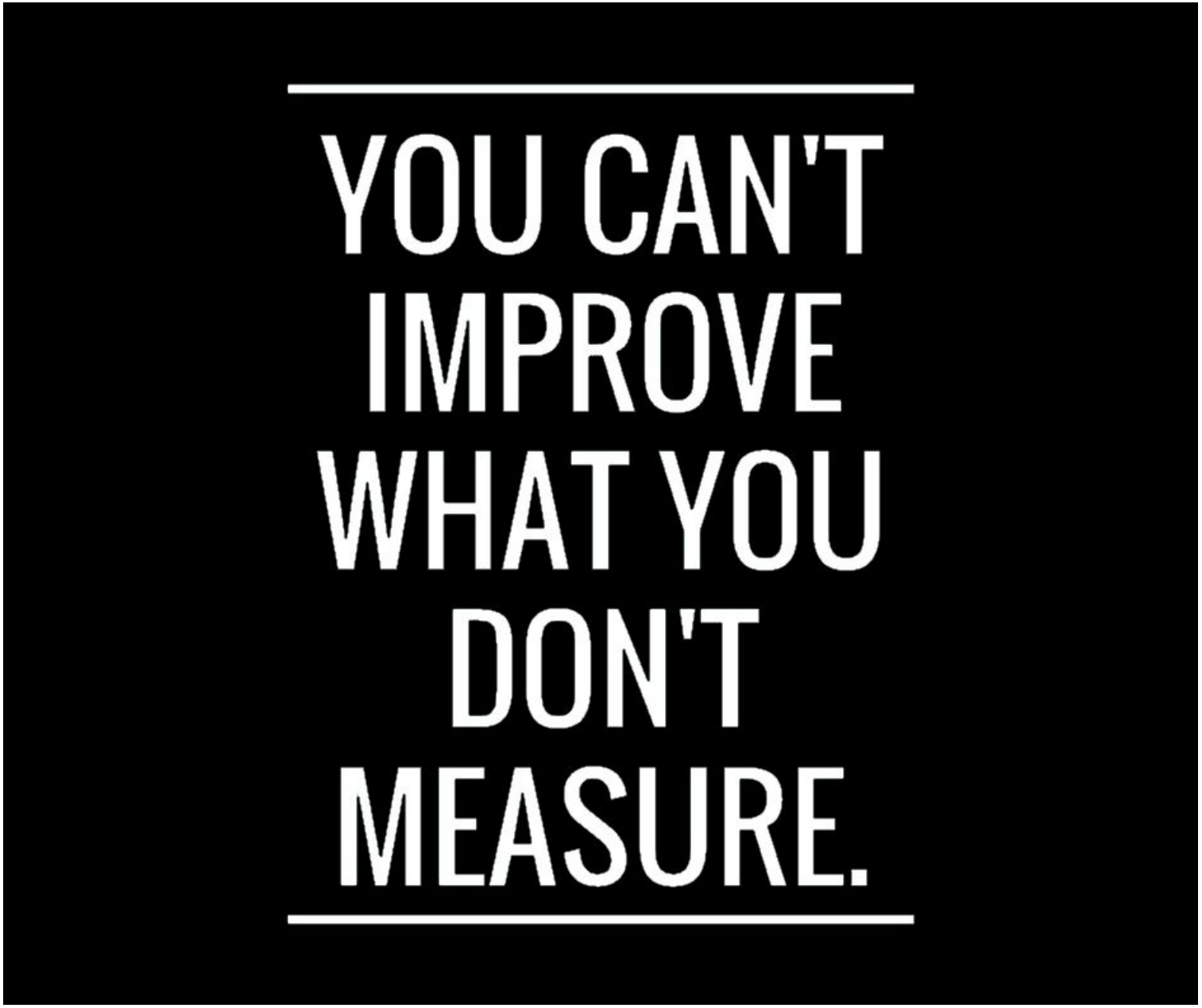
We must **embrace** patient-centered care

We must **evaluate** the influence of SDOH

We must **asses** the patient perspective

We must **prioritize** the patient perspective

Our patients deserve this!


YOU CAN'T
IMPROVE
WHAT YOU
DON'T
MEASURE.

AT PBRN

Athletic Training Practice-Based Research Network

Home About Online Courses EMR Research EBP Toolbox

FREE

CEU Courses

FREE

EMR

ATSU Concussion Program | Athletic Training

www.atsuconcussion.com
Tamara C. Valovich McLeod, PhD, ATC, FNATA
tmcleod@atsu.edu | 480-219-6035

AT PBRN
Athletic Training Practice-Based Research Network
www.atpbrn.org