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Become a Health Literacy Champion: Strategies to Promote Health Literacy in Athletic Training

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Health literacy is defined as "the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others."[1] Individuals with health disparities are more likely to have poor health outcomes and misuse health care services due to low health literacy. This connection between health literacy and health disparities demonstrates the need for clinicians to provide health literate care. Athletic trainers serve as essential points of contact for diverse patient populations in a variety of health care settings. The 2023 Practice Analysis 8 recognizes health literacy as an essential responsibility; however, few practical resources exist, and research specific to athletic training is lacking. In this manuscript, we aim to provide a primer on health literacy definitions, concepts, and best practices adapted from public health to support implementation into athletic training clinical practice.

Key Words: health equity, health communication, social determinants of health

Key Points

- Athletic trainers should participate in educational opportunities to become knowledgeable about health literacy concepts and skills. For example, training for professionals in the health-related disciplines is offered through the Centers of Disease Control and Prevention and Institute for Healthcare Advancement.
- Athletic trainers should implement health literacy universal precautions to improve health care access for all patients, regardless of their background or characteristics.
- Health literacy strategies that athletic trainers can implement in practice include checking for patient understanding, shared decision-making, and providing easy-to-understand oral and written information.

Personal health literacy is the "the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others."[1,2] This definition was recently updated for the new iteration of Healthy People 2030 with key changes that emphasize the actionable use of health information by individuals for personal health-related behaviors.[1–3] Personal health literacy also includes individuals' use of health information to inform the health-related decisions of others, such as acting as caregivers or advocating for health-related policies or regulations in their communities.[1,2]

Comprehension and retention of health information play important roles in the effectiveness of care and treatment plans; however, only 12% of US adults had proficient health literacy skills according to the 2006 landmark study on health literacy.[4] Therefore, nearly all adults will have difficulty understanding health information at some point in their lifetime. Although patient recall of health information, such as home care and discharge instructions, is not well researched, evidence suggests that typically fewer than half of patients accurately remember their health information from appointments.[5–7] Many factors may contribute to individual health literacy levels, including fatigue, stress, anxiety, and whether they will seek care or follow treatment for their medical conditions.[5,8,9] Additionally, health information retention and recall can decrease when a large volume of information is presented at one time, particularly orally. The structure in which information is presented matters in that patient recall is strongest for the first tasks or pieces of information and general information rather than specific details. Finally, information that *conflicts* with preexisting knowledge or ideas that the patient holds about the condition or does not align with the patient's values is weakest in terms of recall and retention.[5]

In the following sections, we will define foundational concepts in organizational health literacy, including supporting literature and best practices and application to athletic health care. We have selected several potential strategies and initiatives to promote health literacy in athletic training clinical practice. Although not an exhaustive list, examples of techniques, tools, or resources to consider implementing in your clinical practice are provided. Links to the described tools and techniques along with additional suggested resources are summarized in the Table.

HEALTH EQUITY AND HEALTH LITERACY

Health literacy is 1 of the social determinants of health (SDOH) domains under the Health Care Access and Quality domain in the Healthy People 2030 framework.[10,11] It is

Table. Examples of Evidence-Based Resources

Health literacy education strategies	https://www.ahrq.gov/health-literacy/publications/ten-attributes.html#prepares (see Attribute 3)
	https://www.ahrq.gov/teamstepps/index.html
	https://www.cdc.gov/healthcommunication/podcast.html
	https://www.cdc.gov/healthliteracy/gettraining.html
	http://healthliteracy.bu.edu/about
	https://www.healthliteracyoutloud.com/
	https://www.iha4health.org/
Strategies to meet the needs of populations	http://www.aafp.org/patient-care/public-health/cultural-proficiency.html
	https://www.ahrq.gov/health-literacy/improve/precautions/toolkit.html
	https://www.ahrq.gov/health-literacy/improve/precautions/tool10.html
	https://ethnomed.org/
	https://www.hrsa.gov/about/organization/bureaus/ohe/health-literacy/culture-language-and-health-literacy
	https://thinkculturalhealth.hhs.gov/clas
Interpersonal communication and confirming understanding of strategies	https://www.ahrq.gov/health-literacy/improve/precautions/tool4.html
	https://www.ahrq.gov/health-literacy/improve/precautions/tool5.html
	https://www.ahrq.gov/health-literacy/improve/precautions/tool8.html
	https://www.ahrq.gov/health-literacy/improve/precautions/tool16.html
	https://www.ahrq.gov/questions/question-builder/online.html
	https://www.ahrq.gov/health-literacy/professional-training/shared-decision/index.html
	https://apps.lib.umich.edu/medical-dictionary/
	https://familydoctor.org/
	https://healthychildren.org
	http://www.ihi.org/resources/Pages/Tools/Ask-Me-3-Good-Questions-for-Your-Good-Health.aspx
	https://medlineplus.gov/
	https://www.merckmanuals.com/home
	https://www.plainlanguage.gov/guidelines/
Strategies to design and distribute easy-to-understand content	https://www.ahrq.gov/health-literacy/improve/precautions/tool11.html
	https://www.ahrq.gov/health-literacy/patient-education/pemat.html
	https://www.cdc.gov/healthliteracy/developmaterials/guidancestandards.html
	https://www.hsph.harvard.edu/healthliteracy/materials/
	https://www.nata.org/practice-patient-care/infographic-handouts
	https://www.nih.gov/institutes-nih/nih-office-director/office-communications-public-liaison/clear-communication/plain-language

essential to recognize the relationship between personal health literacy and health disparities due to the complex dynamics between SDOH and certain populations. For example, individuals who are more likely to experience low health literacy when using health information and services tend to report lower socioeconomic status, less formal education, and a lack of access to health insurance coverage.[9,11–15] Researchers have also indicated that individuals with low health literacy tend to be older and historically marginalized and do not speak English as their first language.[9,11–15] Therefore, health care professionals (HCPs) should address health literacy to improve health equity and patient outcomes.[16,17] When applying this standard to athletic health care, athletic trainers (ATs) can reduce health disparities by implementing effective patient education and health communication strategies through the continuum of care. Organizations can increase access to health care services by employing full-time ATs.[11,16]

The Institute for Healthcare Improvement Quintuple Aim model suggests 5 aims to achieve a healthy system and quality outcomes.[18,19] Each aim has the potential to influence the next.[9,18–20] The 5 points of the quintuple aim are (1) improving the patient experience, (2) improving population health, (3) reducing health care costs, (4) improving provider well-being, and (5) improving health equity.[18,19] These aims can be either negatively influenced by deficiencies in health literacy or positively supported through health literacy strategies. For instance, low health literacy may lead to poor patient-provider communication and interactions and insufficient chronic disease self-care management.[9] Inadequate management of chronic diseases may result in increased hospital visits or readmissions or primary care appointments that incur additional costs to patients and health care systems.[20] These avoidable and ineffective patient encounters can lead to increased workforce burnout when HCPs become overscheduled and overwhelmed.[20]

Alternatively, by effectively implementing health literacy interventions, health care organizations and professionals may be able to positively influence these aims, improve the quality of outcomes, and reduce health care costs for patients, providers, and organizations.[3,14,16,20,21] For example, using health promotion programs that implement evidence-based health literacy techniques and tools can enhance the use of preventive services and management of chronic disease.[3] Patients with better personal health literacy or whose providers were trained to use health literacy techniques during appointments had improved health outcomes due to increased patient engagement and shared decision-making.[3] Furthermore, the link between health literate care and provider well-being was linked to providing more resources and freedom for HCPs to focus on building relationships with their patients.[20]

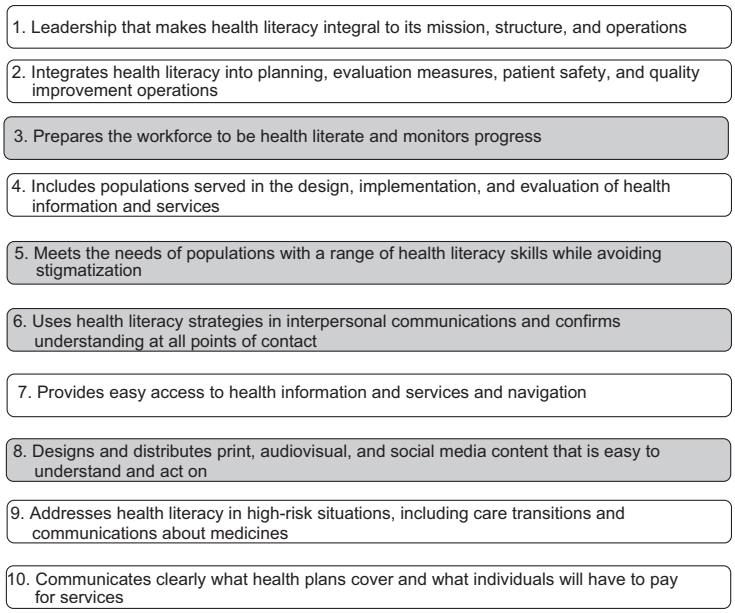

Figure 1. Ten attributes of a health literate organization.[24] Note: Attributes 3, 5, 6, and 8 are discussed in the article, including background literature and resources for implementation into clinical practice.

ORGANIZATIONAL HEALTH LITERACY

The role of the HCP and health care system in health literacy is acknowledged with its own definition.[2,3] *Organizational health literacy* is "the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others."[1] To support the development of organizational health literacy, the Health Literate Care model was developed to emphasize the role of leadership and administration in system-level change.[22] This model includes implementing patient engagement strategies (eg, shared decision-making, effective communication), using team-based care (eg, redesigning team roles and workflows, medication reconciliation) and clinical information systems (eg, electronic health records) and establishing community networks (eg, referral partners and resources).[22,23] Brach et al also developed *Ten Attributes of Health Literate Health Care Organizations* to guide organizations as they move toward a culture and mission of health literacy (Figure 1).[24] Although these 2 guiding documents require participation and "buy-in" from administration and personnel for system-level change, the movement is designed not to be prescriptive but rather a call to action toward health literacy quality improvement.[23,24] For the purposes of this article, we have selected 4 of the 10 attributes as ways to begin adopting a health literate care model in an athletic training setting or practice (Figure 1). The relevant literature and definitions are summarized for each attribute, followed by evidence-based tools, techniques, and resources.

PREPARES THE WORKFORCE TO BE HEALTH LITERATE AND MONITORS PROGRESS

The focus of attribute 3 is initial and continuing education on health literacy for all HCPs, administration, and staff members in organizations because all personnel may have a role in assisting patients with navigating services and information.[24,25]

Background: Health Literacy Education and Workforce Training

Formal education on health literacy is essential as many HCPs overestimate their health literacy knowledge and skills during patient care.[26–28] However, after completing health literacy education, participants improved their knowledge and skills or behaviors.[26–29] Investigators have suggested that ongoing training and practice is needed to sustain health literacy skills.[25,29–31]

In a systematic review, Cesar et al[32] examined educational health literacy interventions in which HCPs participated. Five strategies were described: traditional lectures, interactive team-based training or workshops, simulations or roleplaying, development of patient education materials, and observation and critique of actual patient interactions.[32] Most interventions were lecture based, yet an interactive or skills component is needed to bridge the gap between knowledge and practice.[11,25,31,32]

Selecting and Implementing Tools and Resources: Health Literacy Education and Training

Athletic Training Resources. Attending athletic training–sponsored presentations at conferences or on-demand webinars may be 1 place to start. Furthermore, with the integration of health literacy into the 2020 educational standards,[33] athletic training educational programs may be valuable resources. Consider reaching out to program faculty or administrators to see if they have created content or resources on SDOH and health literacy for students or preceptors that they may be willing to share.[11,34]

Interdisciplinary Resources. Searching for content created by interprofessional programs and organizations, such as those in public health or pharmacy, may provide more robust opportunities because health literacy is well established in their curricula.[21,23] The Agency for Health Research and Quality (AHRQ) and the Centers for Disease and Control and Prevention have created several modules on foundational health literacy concepts as well as specific techniques and principles.[35,36] Social media resources, such as podcasts, can be creative ways to integrate learning into busy routines for ATs who are less available or want to listen on the go (eg, travel during a road trip). Athletic trainers should regularly incorporate health literacy updates and use visuals (eg, hanging posters of the AHRQ Health Literacy Universal Precautions Toolkit[37] techniques in the athletic training facility) to create consistent reminders for optimal outcomes.[25]

MEETS THE NEEDS OF POPULATIONS WITH A RANGE OF HEALTH LITERACY SKILLS WHILE AVOIDING STIGMATIZATION

Attribute 5 is an essential foundational health literacy principle. Similar to the universal precautions for bloodborne pathogens, this principle refers to the concept of health literacy universal precautions, ie, health literacy strategies should be used and offered to all patients during all encounters.[24,37]

Background: Health Literacy Universal Precautions

Nine out of 10 adults will leave an appointment not fully understanding their health information, so health literacy universal precautions recommend that HCPs treat all patients as if they experience low health literacy.[22–24] It is also important to highlight the attribute's phrasing, "while avoiding stigmatization." Although a complex dynamic exists among SDOH, health literacy, and health disparities,[14,16] the health care system should seek to create equity for all patients.[17,18]

Liang and Brach[9] found that HCPs tended to apply more health literacy techniques during visits for those who visibly met the demographics of patients who experienced lower health literacy. That approach might have benefited patients who needed additional health communication support, but it may have also unintentionally created barriers or decreased outcomes for others who did not appear to be patients with low health literacy.[9,38] Thus, health literacy universal precautions should be implemented by HCPs during all patient encounters.[17,23,38] The Table supplies additional links related to cultural humility trainings and resources that ATs can use to further broaden their lenses and perspectives to meet the needs of diverse populations.

Selecting and Implementing Tools and Resources: Meeting the Needs of Populations

The AHRQ "Health Literacy Universal Precautions Toolkit." The AHRQ developed the "Health Literacy Universal Precautions Toolkit" (2nd edition) with 21 tools to guide practices in several domains: spoken and written communication, patient or self-management and empowerment, and supportive systems (ie, referral networks).[37] Additionally, it includes tools and guides to start quality improvement projects, such as a health literacy assessment survey and Plan-Do-Study-Act worksheets.[39] Although the original purpose of the toolkit was to engage primary care and acute care professionals in health literacy best practices, the topics and tools are adaptable to the needs of a wide variety of practitioners and care settings. Implementation of strategies from the toolkit ensures that the needs of all patients can be met; therefore, ATs should determine which health literacy tools may be most efficiently integrated into their practice and meaningfully affect patient outcomes. To help guide ATs in selecting initial resources, we will introduce a few health literacy concepts and principles from the toolkit to demonstrate their potential use in athletic training. A link to the full toolkit can be found in the Table.

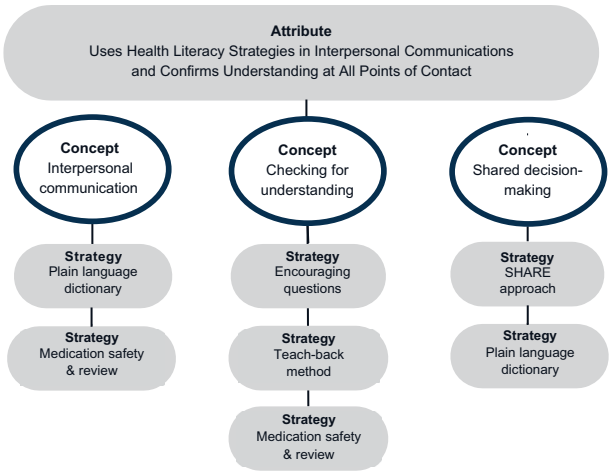

Figure 2. Organizational health literacy concepts and strategies.

USES HEALTH LITERACY STRATEGIES IN INTERPERSONAL COMMUNICATIONS AND CONFIRMS UNDERSTANDING AT ALL POINTS OF CONTACT

Attribute 6 focuses on effective communication between the provider and patient at every point of an encounter.[24] These concepts and techniques support the implementation of recommended organizational health literacy objectives, including checking for understanding, interpersonal communication, and shared decision-making (Figure 2).

Background: Organizational Health Literacy Principles and Strategies

Organizational health literacy continues to be a growing area of research, quality improvement, and outcomes measurement. For example, Healthy People 2030 has established objectives to examine and improve the percentage of HCPs who participate in health literacy and health communication behaviors.[1,3] One such objective examines HCPs' use of techniques to check for patient understanding by asking patients if the HCP requested they describe how they will follow health-related instructions.[1] A second objective assesses interpersonal communication and, more specifically, poor provider communication.[1] Patients are surveyed about whether they felt that their providers listened carefully, explained conditions or care plans in ways they could understand, respected their perspective or input, and spent enough time with them.[1] The third objective

concerns shared decision-making. Patients are asked if their HCP always involved them in decisions about their care as much as they wanted.[1] These 3 provider-driven communication actions are key to improving patient understanding and reducing health disparities.[1,3,9]

Interpersonal Communication

According to Healthy People 2030, 9% of patients reported poor communication from providers.[1] One essential health literacy principle is to supply easy-to-understand information, in both written and spoken communication, using *plain language* (ie, words and numbers). Specifically, it is important to avoid using medical jargon (eg, range of motion, anatomical terms) and concepts (eg, pharmacology, nutrition) because they may require complex thinking or higher reading levels, which can affect patient outcomes.[8,40,41] Also, many abbreviations and acronyms may have nonmedical meanings or connotations that can confuse patients.[8,40,42] Implementing health literacy universal precautions is essential during patient communication due to an apparent discrepancy between the patient's self-perception and measured understanding. For example, Liang and Brach[9] found that, even though most (70%) patients indicated that their HCP gave instructions in ways that were easy to understand, many patients were from populations associated with lower health literacy and, therefore, specifically received clearer communication from HCPs. Moreover, authors of studies assessing health literacy of patients regarding orthopaedic terminology and concepts (eg, What is a fracture? What is not allowed during nonweight bearing?) showed that most patients lacked accurate understanding.[43,44] Thus, HCPs should improve their use of health literacy universal precautions and clear communication strategies. Athletic trainers may prepare for effective patient communication by practicing frequent topics using plain language terminology and easy-to-understand examples.

Similarly, numeracy can be a challenging concept for individuals as they process and use health information for decision-making. Four main types can overlap and build in complexity. First is *basic numeracy*, such as counting or identifying numbers.[45] These tasks can include counting the number of pills to take or reading the numbers on food or medication labels or time on calendars or clocks for appointments or when to take medications properly.[45] Some researchers have suggested using visual aids on labels to provide clearer instructions (eg, representing the time of day using a yellow sun for the morning and a blue moon for night or bedtime) in relation to the number of capsules at each of those time periods to prevent medication errors and their consequences.[46] As part of patient education and therapeutic intervention responsibilities, ATs should consider implementing pill cards during medication reconciliation or creating care plans (eg, combined with home exercise program schedules) to support patient education and understanding.[47]

Computational numeracy describes performing simple formulas or manipulation of numbers, such as adding or multiplying.[45] *Analytical numeracy* refers to understanding percentages, whereas *statistical numeracy* requires the skills to critically comprehend quantitative ideas, such as risks or ratios.[45] These latter numeracy skills are more complex, and patients may be asked to use them when understanding risk, making decisions about treatment options, or comparing health plans.[45] For example, patients may need an AT to help them understand the data regarding the risks and benefits of all their options after an injury or the chances of reinjury.

Reading a food label is another practical example of a health literacy task and assessment. Specifically, the Newest Vital Sign (NVS) asks a patient 6 questions about a food label to examine health numeracy and other health literacy concepts.[48] For instance, the patient needs to calculate and visualize serving sizes (ie, computational numeracy) and remember and understand nutrition concepts, including percentages of daily values or recommended daily amounts (ie, analytical numeracy).[48] Ultimately, the AT should use numbers wisely to illustrate a point and always help patients comprehend how to use them to make informed health-related decisions (eg, are these numbers good or bad, high or low?).

Checking for Understanding. Checking for patient understanding ensures that the individual will safely follow home care instructions or perform healthy behaviors after leaving the appointment. Encouraging patient questions is 1 strategy for creating a welcoming environment and inviting patient interaction. Coleman et al observed that medical students who participated in health literacy training on question-asking strategies were more likely to use best practices, but the students who did not benefit from such a curriculum or consistently implement best practices either did not invite questions or used ineffective strategies.[49] These behaviors risked decreased patient understanding and produced an environment that discouraged the patient from initiating questions.[49] Encouraging patient questions can be simple to integrate into the evaluation workflow and enhanced with specific techniques. Athletic trainers also often act as advocates or liaisons for patients in referral situations; helping patients prepare for appointments by drafting a list of questions for other HCPs can be a useful strategy. Creating a list of questions with the patient may also reveal opportunities for clarification and correction of misinformation. Asking questions may be difficult for patients because appointments can be stressful, and they may forget their questions without a preprepared list.[8,50] Additionally, patients may lack the confidence to engage in discussion, as they may fear they will not understand jargon or concepts, or a cultural or generational barrier in the patient-provider communication may cause hesitancy regarding questioning the HCP or the use of appointment time for questions.[8,50]

The teach-back method is another recommended best practice because it places responsibility on the HCP to support patient understanding while actively engaging the patient.[30,51] The benefits of the teach-back method are so significant to patient outcomes and experiences that it is now considered to be an *always best practice* or a technique that should be implemented in every patient encounter.[28] However, the most recent Healthy People 2030 surveys showed that patients reported that only approximately one-quarter of their HCPs checked for their understanding during appointments.[1] Interestingly, HCPs' self-perceptions and reports of teach-back method implementation have been problematic. Shoemaker et al determined that HCPs self-reported using the teach-back method only 40% of the time.[28] Feinberg et al reported that medical students believed they were implementing the teach-back method 60% of the time when, in reality, they were performing the technique with only 2.5% of their patients.[26] However, after formal training on

the teach-back method, the participants implemented the technique 53% of the time.[26] These trends support the desire of HCPs to use evidence-based tools, but additional support is needed for them to be successful. Athletic trainers should perform a self-assessment regarding the techniques they use to check for patient understanding and seek educational opportunities to enhance best practices.

Shared Decision-Making. Similar to plain language concepts, the medicolegal language on consent forms and patient documentation can be hard to understand for individuals at any health literacy level.[52] Implementing plain language tools can help minimize confusion when asking patients to consent to procedures or sign other important agreements; still, informed consent processes should be combined with shared decision-making strategies to enhance health literacy.[28] Informed consent is the *process* of a patient making decisions regarding health interventions or procedures rather than the signature on a singular form. Requirements for a truly informed consent process include having a thorough understanding of one's condition and presentation of all diagnostic and treatment options and all risks and benefits of all options, including no treatment.[28,52] Part of the AT's responsibility is to educate patients on their "diagnosis, prognosis, and plan of care"[47(p4)]; therefore, the AT has a clear role in the informed consent process.

According to Healthy People 2030, 57% of HCPs were meeting the shared decision-making objective.[1] The AHRQ has developed and piloted informed consent training modules. Shoemaker et al identified room for improvement in providing patients with further care options, fully explaining risks and potential outcomes, and asking patients their values and preferences.[28] Additionally, a discrepancy was present between patients and HCPs regarding informed consent and shared decision-making best practices.[28] Health care professionals self-reported offering treatment options (95%) and using decision-making aids to support informed consent processes (55%) far more often than patients reported their HCPs demonstrating these practices during appointments (55% and approximately 37%, respectively).[28] Although shared decision-making practices have been improving over time,[1] more training and techniques for informed consent and shared decision-making should be integrated into HCPs' practices.[22,28]

Selecting and Implementing Tools and Resources: Interpersonal Communication and Confirming Patient Understanding

Plain Language Dictionary. The online plain language dictionary from the University of Michigan is accessible and interactive.[53] It is a great resource that can be used in clinical practice, shared with administrative staff, or provided to patients if they need to look up an item on their own. Another resource is the Federal Plain Language Guidelines from plainlanguage.gov.[42] This is one of many federal organizations that publishes tips and guidelines for plain language considerations, particularly for written communication (ie, websites, forms, or documentation).

Medication Safety and Review. The AHRQ Health Literacy Universal Precautions Toolkit tools 16 and 8 can be used by ATs to improve health numeracy skills and reduce medication errors.[22,24,54,55] Tool 16 describes techniques, such as a pill card, that are useful for increasing information recall for prescribed and over-the-counter medications that a patient may take to manage chronic (eg, asthma, diabetes, mental health related) and acute (eg, postoperative pain management, infection) conditions.[24,54] These medications may affect safe participation due to side effects and interactions with other medications, supplements, and even foods that the patient may be ingesting.[24,54] Conduct Brown Bag Medicine Reviews: Tool 8 may be particularly useful for ATs who are employed by physician's practices during *rooming* (eg, greeting patients, obtaining vital signs, reviewing and updating medical records) and medication reconciliation practices.[55,56] In athletic settings, consider this review activity during preparticipation screenings. The AT and patient can collaboratively complete or review the form as medication history may have a significant effect on a patient's susceptibility to preexisting conditions.[47] By reviewing medications together using these evidence-based tools, patients and providers can mitigate the risks of drug interactions, potential side effects, and lack of patient understanding when taking medications.[22,24,54–56]

Encouraging Questions. When encouraging patient questions using a health literacy lens, the recommendation is to use open-ended phrases, such as, "What questions do you have for me?" rather than, "Do you have questions?" This technique serves 2 purposes. First, the patient cannot simply answer no.[49,50] Second, it creates an environment in which the patient feels the HCP genuinely welcomes and invites questions.[27,49,50] The AHRQ Health Literacy Universal Precautions Toolkit Tool 14 provides additional resources and tips on nonverbal communication strategies to combine with question invitations.[50]

When an AT is acting as a patient advocate or liaison, the AHRQ Question Builder tool may be helpful to use with patients or as a resource for them to use on their own or with their families and caregivers to prepare for outside appointments. Another option is to schedule time to sit with patients to assist them in creating a list of questions that they or the AT may have for the other HCP and encourage them to take notes for more accurate recall.[57]

Teach-Back Method. Key strategies of the teach-back method are assuming responsibility as the HCP, using open-ended questions and demonstrations (ie, physical or visual aids), positively reinforcing accurate information, correcting inaccurate information until satisfied, and wrapping up by encouraging patient questions.[30,51] The strategy should be implemented after every 3 to 5 pieces of critical information are delivered to enhance retention and understanding.[30,51] An AT may implement the teach-back method as follows[30,51]:

(1) Ask an open-ended phrase that assumes responsibility: "I want to make sure I explained [x] clearly. . . can you tell or show me what you remember about [x]?"
(2) As the patient repeats or demonstrates instructions, the AT should find opportunities to
    (a) Positively reinforce information that is accurate and
    (b) Correct information that was inaccurate. At this time, the AT should also assess the need to adjust health literacy techniques (eg, plain language and numbers) or the environment (eg, is it too loud or distracting?) and check in with the patient about their needs and considerations (eg, patient values or preferences, communication accommodations, stress or anxiety).

(3) Repeat Step 2 until both the AT and the patient are satisfied.
(4) Supplement with written materials (eg, home exercise descriptions with photos or home care protocols printed out) and encourage patients to jot down notes during the appointment or make notes on any take-home materials in their own words.
(5) Finish by inviting questions using open-ended phrasing.

The SHARE Approach.[58] The SHARE Approach, developed through AHRQ, echoes the 3 pillars of evidence-based practice that have been promoted in athletic training clinical decision-making: best practices, patient values and preferences, and the clinician's expertise and recommendations.[59] The 5-step SHARE approach is designed to engage the patient throughout the appointment process to respect patient preference while integrating the clinician's recommendations. Specifically, SHARE stands for[58]

(1) *Seek* the patient's participation.
(2) *Help* the patient explore and compare treatment options.
(3) *Assess* the patient's values and preferences.
(4) *Reach* a decision with the patient.
(5) *Evaluate* the patient's decision.

The process is designed to be collaborative, with the clinician offering options and expert opinions throughout to help the patient understand and weigh the risks and benefits of each option, account for the patient's preferences in consideration with their goals, discuss options and potential outcomes, and then evaluate the final decision together.[58] This approach also highlights concepts of health numeracy by supporting patients' understanding of quantitative and statistical ideas related to risk and outcomes.[45]

DESIGNS AND DISTRIBUTES PRINT, AUDIOVISUAL, AND SOCIAL MEDIA CONTENT THAT IS EASY TO UNDERSTAND AND ACT ON

Attribute 8 focuses on patient education materials that are written, visual, audio, or audiovisual to support evaluation and care. Patients commonly interact with these materials when completing and signing required forms, reviewing documentation on patient portals or handouts provided during appointments (eg, test results, medication safety instructions, home exercise plans), and seeing signage posted in health care facilities designed for navigation or health education.[22–24]

Background: Design and Evaluation of Patient Education Material

Materials for patient education can be written (eg, discharge or home care instructions), visual aids (eg, infographics for health promotion, diagrams to supplement explanations), or websites to support recall of instructions or allow independent research.[60,61] Most patients prefer receiving health information orally that is supplemented with written materials, visual aids, or both; these methods support patient recall and serve as aids when the patient explains the health information to a family member or other individual.[6,44,62] Also, many people use the internet and online resources (eg, patient portals) to find their own health information.[61,63,64] However, patients face challenges when evaluating the accuracy of these sites.[61,63,64] Furthermore, many written materials do not meet health literacy criteria for patient understanding, including the use of plain language principles and having clear key health messages that patients can put into action.[42,58,65,66] Athletic trainers can play an important role in empowering patients to be active in their own care by providing them with credible online resources and tips to evaluate trustworthiness as well as reviewing their own patient education materials using health literacy guidelines.[61,63,66,67]

Selecting and Implementing Tools and Resources: Design and Distribute Easy-to-Understand Content

Select or Design and Assess Patient Education Materials. Health care professionals may design their own materials, implement content required or supplied by their organization (eg, forms, documentation), or adopt designs created by other organizations for patient education and health promotion (eg, National Athletic Trainers' Association injury infographics).[21,68] Regardless, materials should be easy to understand. Several tools can be used to assess patient education materials, documentation, and forms.[21] The AHRQ Health Literacy Universal Precautions Toolkit Tool 11 offers links to various options.[69] One option is the Patient Education Materials Assessment Tool, which is a guide and rubric for critiquing the understandability (ie, content, layout and design, word choice, organization, and visual aids) and actionability (eg, specific, measurable, time-based steps for a health behavior; health numeracy concepts supported with visuals) of materials.[60,66,69] The Plain Writing Act of 2010 requires that federal public documents and materials meet plain language guidelines and health literacy best practices.[23,42] These organizations and sites may be good resources to model when creating patient education materials or as resources to patients. Athletic trainers may want to start by assessing common patient forms, including preparticipation screening forms and home care instructions, using existing rubrics and guidelines.

Consumer Resources. Many credible web-based resources exist to support patient recall and self-empowerment. MedlinePlus is a free, federally sponsored site that is regularly reviewed and monitored for accuracy.[69,70] It contains information on a variety of health conditions, medications that can be combined with medication safety tools, testing and procedures, and health promotion behaviors. It can also be helpful in directing patients to organizations for their specific conditions where they may find more tailored information, resources, and support.

CONCLUSIONS

The alignment between athletic training and public health strengthens the profession's call to action to contribute to national goals in order to improve health equity.[71] However, concerns surrounding health disparities and SDOHs can be complex; therefore, health literacy interventions can be a practical solution.[11,14–17] For ATs, approaching health literacy from the lens of enhancing patient-centered care and patient education using best practices in health communication may be a natural fit.

To begin, consider using a quality improvement framework or approach to create a manageable entry into establishing a health literate health care model.[21,39,72] Self-assess your current clinical practice, gather feedback from patients or other decision-makers in your organization, or simply pick a tool or technique for which you have the resources to implement a health literacy improvement project that will be manageable and sustainable.[39,72] We recommend using an available tool or technique or combining multiple tools and adapting or modifying them for your needs or to fit the current resources.[73] It is important to consistently track progress toward health literacy outcomes, which should include patient feedback or surveys.[24,37] Also consider using measures connected to organizational and provider outcomes to advocate for additional resources from administration and contribute to future health literacy organization efforts.[18,20,47,56]

As ATs establish their place as valuable primary care providers across health care settings and serve diverse patient populations, they have a responsibility to become health literacy champions.[23,71] Athletic trainers often serve as consistent points of patient contact; they are well positioned to support patient health literacy and drive organizational health literacy change. With the recent evolution in the profession to include health literacy tasks, ATs can integrate the strategies described in this article into their current clinical practice to improve and enhance patient and organizational outcomes.[33,47]

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