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# Characterizations of a Quality Certified Athletic Trainer

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***Context:*** Didactic proficiency does not ensure clinical aptitude. Quality athletic health care requires clinical knowledge and affective traits.

***Objective:*** To develop a grounded theory explaining the constructs of a quality certified athletic trainer (AT).

***Design:*** Delphi study.

***Setting:*** Interviews in conference rooms or business offices and by telephone.

***Patients or Other Participants:*** Thirteen ATs (men = 8, women = 5) stratified across the largest employment settings (high school, college, clinical) in the 4 largest districts of the National Athletic Trainers' Association (2, 3, 4, 9).

***Data Collection and Analysis:*** Open-ended interview questions were audio recorded, transcribed, and reviewed before condensing. Two member checks ensured trustworthiness. Open coding reduced text to descriptive adjectives.

***Results:*** We grouped adjectives into 5 constructs (*care, communication, commitment, integrity, knowledge*) and grouped these constructs into 2 higher-order constructs (*affective traits, effective traits*).

***Conclusions:*** According to participants, ATs who demonstrate the ability to care, show commitment and integrity, value professional knowledge, and communicate effectively with others can be identified as quality ATs. These abilities facilitate the creation of positive relationships. These relationships allow the quality AT to interact with patients and other health care professionals on a knowledgeable basis that ultimately improves health care delivery. Our resulting theory supported the examination of characteristics not traditionally assessed in an athletic training education program. If researchers can show that these characteristics develop ATs into quality ATs (eg, those who work better with others, relate meaningfully with patients, and improve the standard of health care), they must be cultivated in the educational setting.

***Key Words:*** data immersion, constructs, think display

**Key Points**

- Quality athletic trainers exhibit the 5 latent constructs of *care, communication, commitment, integrity, and knowledge*.
- The 5 latent constructs appeared to compose the 2 higher-order constructs of *affective traits* and *effective traits*.
- Quality athletic trainers use the 5 latent constructs to create important interactions with their patients.
- Entry-level athletic trainers who demonstrate conscientious commitment and dedication to developing these characteristics might become quality athletic trainers.

The rating of professionals based on expected outcomes or performance (eg, certification processes) has been a long-standing practice for health care providers. The professions of nursing and physical therapy have assessed nondidactic skills that contribute to clinical success by measuring medical outcomes.[1,2] These health care professions have established a set of characteristics that are desirable in professionals (eg, empathy, dedication, caring). Patients seeking medical care want the person who stands out above others and meets their definitions of *quality*. When patients are satisfied with a medical visit or find a medical professional exhibiting the traits they deem important (eg, communicative, patient, sincere), they are more likely to return or refer a friend.[3] Such information gained through scientific inquiry brings an innate benefit to the associated profession. However, athletic training has not pursued a set of nondidactic characteristics beyond the anecdotal claim. Therefore, exploration and establishment of descriptors is paramount in ensuring the maturation of entry-level professionals into quality health care providers.

The certified athletic trainer (AT) must complete a rigorous program of study at an institution that has met accreditation standards set by the Commission on Accreditation of Athletic Training Education (CAATE). In addition to successful completion of an accredited program, an AT also must pass an examination administered by the Board of Certification (BOC). The BOC provides the certification program for entry-level ATs and ensures that ATs agree to abide by the BOC standards, but it does not guarantee future job performance or competence.[4] Similarly, CAATE was developed to maintain minimal standards for entry-level athletic training education programs (ATEPs).[5] Although CAATE encourages ATEPs to exceed the minimal standards, no evaluations or assurances that this is accomplished exist. Currently, 33 states also offer licensure of ATs, and 11 other states legally regulate the profession of athletic training. The *Athletic Training Educational Competencies,* fifth edition, published by the National Athletic Trainers' Association (NATA),[6] identifies competencies and clinical proficiencies required for effective performance of entry-level ATs.

However, effectiveness does not necessarily equate with quality. An entry-level AT is a recently certified person, but no literature exists to delineate when an AT moves beyond an entry-level classification. By providing a description of a *quality AT,* we intended to identify characteristics of ATs that lead patients to seek them. The acquisition of these attributes might be one measure to indicate that the AT has moved past the entry-level classification.

Although progression toward this information obviously would benefit health care professions, this pursuit is not limited to such. In 2003, Larry Locke, professor emeritus at the University of Massachusetts, addressed the audience of the Conference for Physical Education Teacher Education about omissions he noted from the meeting.[7] He commented that most educators have seen at least 1 student complete the educational program whom they would like to see fail a licensing requirement.[7] With this comment, Dr Locke was referring to the idea that educational preparation is not the only factor contributing to success or trustworthy performance. He proposed that additional screening occur beyond demonstration of competencies. The assessment of employability skills or attitudes needed to enable knowledge and transfer of core skills is necessary for professional success.[7] Toward this end, the affective and personal dispositions pertaining to the specific abilities to think critically, solve problems, and negotiate oral communications to accomplish teamwork must be addressed in educational environments.[7]

Academic standards in secondary education became the norm nationwide in the 1990s, and national commissions worked diligently to tie them to subject matter.[8] Employers started putting value on grades and high test scores. However, when these methods did not deliver the qualities desired, a push for even higher scores and grades occurred.[8] Employers and national commissions did not realize that high test scores do not necessarily predict the ability to meet employment expectations.[8]

Standardized tests have been used as peremptory indicators of an applicant's likeliness to be successful.[9] Intelligence tests and the SAT (The College Board, New York, NY) can predict scores on vocabulary tests and other nonstandardized tests students are likely to take in academic settings.[9] These styles of measurement tend to predict occupational achievement when achievements are tied to school performance. However, in real-life, day-to-day settings, these standardized indicators are not as predictive for success.[9]

Psychologists agree that intelligence and innate abilities encompass more than what a standard test of intelligence defines.[10] Some intelligences or abilities not typically captured by a standardized test include interpersonal, intrapersonal, kinesthetic, musical, creative, and practical skills.[10] Creative abilities fostered by these skills are important in many fields that would score unjustly against people if standardized testing were the sole selection criterion.[10]

The professions of nursing and physical therapy, as well as other health care fields, have established characteristics of quality care and professional performance.[11–13] Researchers in the profession of nursing have documented the development of quality nurses and health care, the transformation from a novice to an expert nurse with experience, and how experienced nurses provide higher-quality care.[2,12,14] Researchers in nursing have reviewed interpersonal relationships and the resulting perceptions of quality care in clinical settings.[11,14]

Investigators in the profession of physical therapy have assessed patient outcomes using many descriptors. Physical therapists have described expert practices qualitatively and also have identified generic abilities.[1,15] Generic abilities of physical therapists included commitment to learning, interpersonal skills, communication, and professionalism.[1] Performing a confirmatory factor analysis on qualitatively derived data, Jette and Portney[16] showed that in construct validation of professional behaviors in physical therapy research, professional development, communication, personal balance, interpersonal skills, and working relationships contributed to the model of professional behavior.

The NATA Foundational Behaviors of Professional Practice[6] and the *BOC Standards of Professional Practice*[4] both cover an AT's requirement for advancing knowledge and lifelong continuing education. They also discuss an AT's responsibility to communicate honestly with patients and to interact with other health care providers. They do not cover the personal intrinsic attributes that might enable one AT to be better at this than another. In fact, the *BOC Standards of Professional Practice*[4] does not guarantee job performance abilities based on the attainment of the AT credential.

The identified characteristics of a quality AT in our study might be similar to the ones described or supported in previous health care fields. However, theoretically supported investigations of the constructs defining a *quality AT* have not been established. Therefore, the purpose of our study was to develop a grounded theory explaining the constructs of a quality AT. This theory will contribute to the literature by identifying desirable characteristics of an AT. Furthermore, it will aid in differentiating between an entry-level AT and a quality AT by establishing descriptors of each.

## METHODS

We chose qualitative methods because of their abilities to offer in-depth understanding about vocational aptitude, innate abilities, or personalities that make a quality AT. The basic premise was founded on the notion that not all ATs are equal in skills and abilities. Before we could assess differences between various ATs and their skill levels, we had to establish the descriptors of a quality AT, and qualitative methods were suited particularly to this task. We applied the Delphi method, which is a structured process to collect ideas from a group of experts through interviews.[17] The method helped us establish a grounded theory, and we used it to explore the description of the components describing a quality AT. A grounded theory is a theory the researcher derives from systematically collected data by repeatedly reviewing the data, making analyses, and developing a theory as free from preconceived ideas as possible. The theory is allowed to emerge from the collected data[18] and develops out of a process of coding (ie, placing observations in specific categories).[19]

By avoiding the setting of an open-forum meeting in which a few people can orally control the larger group, the Delphi method allowed development of consensus among a group of experts and maintained anonymity of participants.[20] This method allowed geographically dispersed participants in our study to submit data in response to a preliminary set of questions during an interview (eg, define a *successful AT,* describe one you would work with). The researcher (S.R.) summarized the interviews and submitted the text to each participant to ensure correct interpretations and allow them to elaborate on their answers. All inaccuracies were addressed to the comfort of the respondent. These responses were collapsed into 1 document

and shared with all participants. Again, participants could add content or clarify statements for accuracy.[17]

The purpose of our study was generated after an exhaustive review of the available scientific literature across multiple health care disciplines.[2,11,12,21] We wanted to establish descriptors to identify the differences between an entry-level AT and a quality AT. Specific interview questions were created to prompt participants to describe positive and negative qualities in ATs during the Delphi interviews. These questions revolved around the central purpose of defining a *successful AT*. The term *successful* can evoke various responses, and participants could interpret it from their own vantage points.

## Participants

Collecting data from an entire population often is not feasible. Therefore, the task of the researcher is to establish a representative sample. A review of the 2006 NATA certified membership by setting and district indicated that most ATs (55.17%) were employed in a physical therapy clinic (18.74%), college setting (20.08%), or high school (16.35%). The next largest employment or current primary setting according to the membership statistics consisted of students (7.98%), followed by a group of ATs who listed their employment setting as high school or clinic outreach (6.84%). Athletic training students were not a variable of interest in defining *quality* because they have not been certified and therefore have not shown that they meet minimal certification standards. The remaining employment settings accounted for small total percentages of the settings (range, 0.02–4.2%). The same data revealed that of the 10 NATA districts, districts 2, 3, 4, and 9 accounted for 15646 (61.37%) of the 25493 members. Therefore, we determined that a combination of 12 participants stratified randomly across the 3 largest employment settings and 4 largest districts was a feasible representative sample of the opinions of the greater population of ATs. By definition, the panel of 12 or more members must consist of experts in the field of athletic training. In the absence of a definition of an *expert* from the NATA, BOC, or CAATE, we defined an *expert AT* as a person with 5 years of clinical practice after graduation with a minimum of a bachelor's degree. Five years of experience should result in attaining skill and knowledge through practice not evident in a new graduate or AT certified less than 1 year. This is supported by the hiring practices advertised on the NATA's Career Center that indicate that 3 to 5 years of experience is desired for non–entry-level positions. The CAATE also suggests that program directors have 5 years of experience. The Table contains the representation of ATs (men = 8, women = 5) from the stratified locations. To ensure equal representation stratified across the variables, a participant from each setting needed to represent 1 of the 4 districts. The sampling plan ensured that ATs from the college, clinical, and high school settings were selected from each of the 4 selected NATA districts. When we completed the 13th interview, participants were not providing new data, and the experts represented the required stratified sample. Participants were contacted through personal communications, the NATA e-mail subscriber list, the NATA Women in Athletic Training Committee e-mail subscriber list, and presidents of the respective NATA districts.

**Table. Participant Stratification**

| | National Athletic Trainers' Association District | | | | |
|---|---|---|---|---|---|
| Employment Setting | 2 | 3 | 4 | 9 | Total |
| High school | 1 | 1 | 1 | 1 | 4 |
| College | 1 | 1 | 1 | 2 | 5 |
| Clinic | 1 | 1 | 1 | 1 | 4 |
| Total | 3 | 3 | 3 | 4 | 13 |

At the beginning of the recorded interviews, the participants indicated informed consent by stating their names and stating that they agreed to participate and that they had no questions that had not been addressed. The University of Southern Mississippi Institutional Review Board approved the study.

## Data Collection

Interviews took place in person or by telephone. All interviews were audio recorded to enable review. Semistructured interviews revolved around the primary concern of establishing descriptors of quality ATs. Statements on which participants were instructed to elaborate included (1) define a *successful AT,* (2) describe the best AT you know or have worked with, (3) describe the AT you would hire to work alongside yourself, (4) describe the AT you wish or desire to emulate, (5) describe the AT you would allow to treat a loved one, and (6) describe the AT you would not hire. Although these were the primary statements addressed, additional related questions or statements developed during individual interviews in response to the participants' answers. These participant-prompted questions or statements were used to further explore concepts presented and gain a greater understanding of a quality AT. The statements listed were repeated in various forms during interviews to capture detail from participants. The aim of a sample variation of statement 5 (describe the AT you would allow to treat a loved one) would be to encourage the participant to reflect on these descriptors on a personal level. They not only might have been asked about a loved one but also, to reach richer descriptors, might have been asked to describe the AT they would want treating them.

During the interview, the researcher (S.R.) wrote brief notes and comments in response to answers provided by the participant. These notes included key words or phrases to which the researcher would return later in the interview to ask follow-up questions. They also served as points for further clarification. This technique added to the depth and richness of answers that participants provided. An additional technique used was a pregnant pause by the researcher when a participant seemed to complete an answer. During face-to-face interviews, the researcher would lean forward, nod, and appear as if he were waiting for further detail from the participant. The same technique of a pregnant pause was used during initial telephone interviews and resulted in an awkward silence. This technique allowed participants to offer additional thoughts and add descriptors to their answers.

## Data Analysis

A threat to the trustworthiness of the qualitatively derived theory was participant error or reluctance to answer truthfully. Having an interviewer present or being recorded can lead to biased responses.[17,22] However, using an independently drawn sample of participants helped control the threat. An entire sample of people making misleading statements was unlikely.

One technique for promoting trustworthiness in qualitative analysis is data immersion. The audio recordings were transcribed verbatim using professional transcription services. After we received the transcripts, listened to the original interview while reading the transcriptions, and made minor textual corrections, an initial error check of potential transcription errors led to increased trustworthiness of the data. Repeated listening to the interviews also established preliminary data immersion, which became evident when the researcher (S.R.) could recognize the voices of participants by reading the textual transcriptions. Data immersion became further evident when the researcher could recite the next line of audio when reviewing the audio files.

The texts of the transcribed interviews were reduced to key points after data immersion. We condensed redundant statements to 1 statement and deleted filler words (eg, *uhm, ahh, like*). Key points from the interviews were categorized into the 6 primary areas of interest (ie, interview statements). These collapsed interview points were returned to each participant, providing a second error check and an initial check of the researcher's understanding of the participant's intent. Participants made minor corrections and added points they remembered and believed were important between the time of the initial interview and this follow-up. This correspondence also allowed participants to make corrections to their original answers without an interviewer present. During these transactions, data immersion continued with repeated listening to audio recordings and review of adjusted textual data returned from participants.

After we had received all initial responses from participants, we aggregated all responses into the 6 primary topics of interest. Again, redundant statements were removed, and additional data from various participants were added to each category. To ensure proper understanding of the participants' thoughts and intents, the researcher (S.R.) completed a second individual member check and the first full-panel review of the data. All participants reviewed this document and could add content or clarify statements for accuracy. After receiving the replies from the panel members on the first full review, we completed additional content adjustments. These adjusted data were resubmitted to the panel of experts for further review, completing the second full-panel review of the 6 primary topics of interest.

After both full-panel member checks, participant-corrected responses to semistructured interview questions were cut from the original documents and pasted on a wall-sized poster under 1 of the 6 primary statement categories. The individual lines of answers from participant 1 under the statement "Define a *successful AT*" were cut from the page and placed on a wall under the same heading. Next, answers from participant 2 under the statement "Define a *successful AT*" were cut from the response and placed on the wall under the same heading. This process was repeated for each participant and each answer for each primary statement, resulting in an exhaustive list of answers from all participants categorized under the appropriate primary area. Words with similar context on the first wall-sized poster were crossed out, condensed, and placed near the bottom of a second wall-sized poster. For example, *cared, cares,* and *caring* were reduced to the word *care* on the second poster. This process of coding continued for each of the general categories. After exhausting terms on the first poster, we reviewed the words on the second poster. Similar words on the second wall-sized poster were grouped together in larger context and produced 5 latent constructs: *communication, commitment, integrity,* and *knowledge*.

Further analysis of the descriptors derived from the participants revealed that the 5 subconstructs formed 2 higher-order constructs: *affective traits* and *effective traits*. The subconstructs of *care, communication, commitment, and integrity* stir feelings of emotion and can be classified jointly as *affective*. The subconstruct of *knowledge* is more of a product or result of achievement and therefore is *effective*. As Wolcott[23] suggested, a "think display" or graphic presentation aided in emphasizing aspects of the study. Numerous iterations of graphic models depicting the 5 lower-order constructs contributing to 2 higher-order constructs were developed until a succinct display was finalized. This model was disseminated to the participants, and they contributed to a third full-panel member check by assessing the fit of their data to the developed graphic model (Figure). Participants reported that the theory-driven graphic concisely fit their data. This step further established trustworthiness of the data and the developing theory. It was also the point at which participants had no further data to add and had reached a consensus.

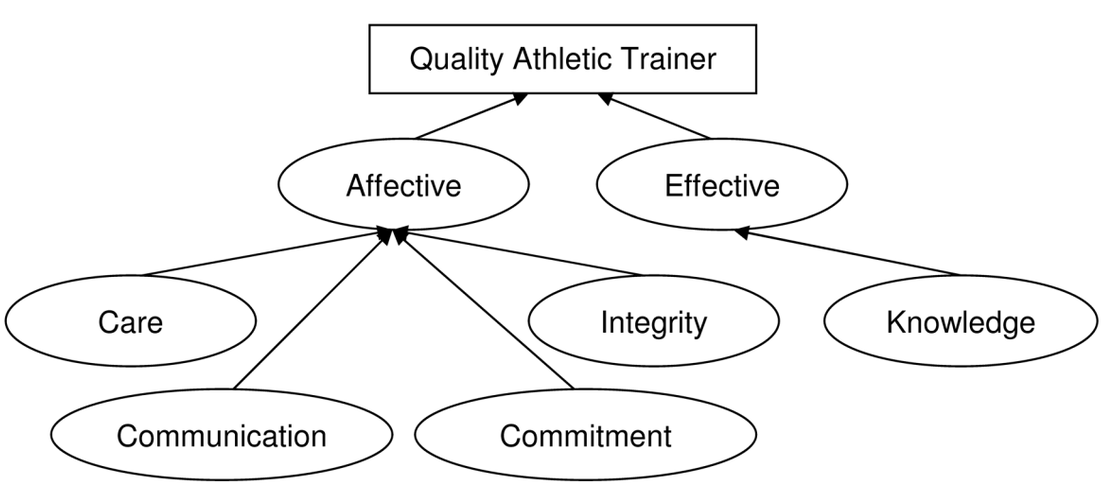


**Figure. Nomological network displaying the latent constructs of quality athletic trainers.**

## RESULTS

### Five Lower-Level Constructs

Our results revealed 5 latent constructs associated with being a quality AT: *care, communication, commitment, integrity,* and *knowledge*.

**Care.** The concept of care and its importance for the AT appeared in all interviews. Participants noted that ATs need to care about their patients and others with whom they interact. Our participants suggested that patients could sense an AT who merely was going through the motions (ie, one who does not sincerely and passionately care about them). One AT emphasized care to his athletes in the following manner:

> Athletes need to know you care for them not only now, but that you are thinking about them long term. What is the effect of this decision going to have today or tomorrow or this weekend but also a year, 5, 10, or 15 years from now.

From this statement, simply treating the current injury appeared to be insufficient; caring about long-term effects of that treatment was necessary for athletes to feel care. Spending time with patients also was perceived as a component of caring. When a participant responded to a question about being treated as an athlete, she said,

> It's important that the athletic trainer care about me as an individual, that even though there might be 15 other patients or injured athletes all around me, the time that the athletic trainer is with me, I want to know that they're going to look at me, call me by name, look me in the eyes and remember my individual injury, and do what's best for me, not send me away.

Each athlete deserves attention, and regardless of the number of patients present for care, a quality AT should realize that no one patient is more important than another. The statement showed that athletes obviously recognize quality ATs as professionals who are willing to spend time caring for them even in the midst of a busy athletic training room. When describing an AT she would want to emulate or how she wanted to be remembered by her student-athletes, another participant stated,

> Athletes like knowing that I genuinely care about them as people and I want to see them do well, whether it's in school or with teachers or friends or on the athletic field.

She clearly valued athletes under her professional care knowing she sincerely wants them to do well in and out of athletic competition.

Participants often referred to the perception of truly caring about a person as being compassionate. The following is a description of compassion provided by an AT identifying how she wanted to be treated as an athlete:

> Athletic trainers need to be compassionate. What might seem like a minor injury to them may appear serious to me. This is happening to me, and so even if it's something fairly minor, it's happening to me and my body. I want an athletic trainer to be compassionate and recognize the injury from my perspective.

An AT should be cognizant of how the athlete or patient feels. The tendency to brush aside or spend less time treating patients with less severe injuries damages the caring relationship. Quality ATs will see injuries from the athletes' perspective and will not simply see the apparent medical necessity. A quality AT is compassionate and will spend the time needed to provide care to injured patients. If athletes think an AT is misleading them or not caring for them, they might not feel that person is committed to their best interests.

**Communication.** Communication is important if an AT is to provide quality care to patients. A quality AT needs to be able to discuss relevant issues with a wide array of people on levels they can understand. The skills and abilities of the clinician serve little use if patients are unable to understand what is taking place or why procedures are important. Expressing care and providing feedback on rehabilitation programs are accomplished through communication. When one of the participants described the best AT with whom she had ever worked, she stated,

> He was the type of guy who could carry on a conversation with anyone, anytime and place. Whether dealing with a gymnastics female or a football player, he could just break it down for them and let them know what was going on.

An AT works with a diverse population, and communicating effectively with all of them is important. Building on the idea that a quality AT can converse with anyone and further highlighting the importance of communication, one participant commented,

> Probably the number one thing that I'd think would make an athletic trainer successful is communication, and that's with parents, with coaches, administration, and, of course, the athlete. You can have all the greatest skills in the world and be a PhD, but unless you can communicate effectively and in a level and tone that would be acceptable to the family and the parents and the administration, you know. You might have all that knowledge, and they'll say, "Well, you know, we don't understand what he's talking about."

Talent and understanding are of little importance if an AT is unable to convey concerns to others or ask them questions in a fashion that helps the AT complete an evaluation. The tone of communication is also vital to the quality AT. The goal is not to offend people by exasperating them with errant questions or unclear descriptors but to clarify feelings and elicit clear responses. When listing characteristics of a successful AT, another participant mentioned communication skills, and when instructed to elaborate, she said,

> Communication is key for an athletic trainer. If you communicate in writing to a parent you cannot speak with, that writing needs to be very reader friendly and easy to read. Verbal communication needs to be very concise and at a level that's understandable, meaning, if you're speaking with somebody who has no background in sports medicine, you need to direct it that way. If they have background in medical terms, then you can direct it that way. However, it needs to be very clear, concise, and at the level of the stakeholder you are speaking with.

A note sent home with an athlete probably will be received by a parent without a background in medicine. If the written communication is laden with complex medical terms and does not include clear descriptors, the note will not effectively convey its intent or the treatment the patient needs. The extra time spent ensuring effective communication shows a commitment of the AT and is an important aspect of a quality AT.

**Commitment.** Participants reported that quality ATs commit much time to the profession. They make themselves available to others and understand that the profession is not typically

constrained to set hours. Patients depend on quality ATs to be available when they need assistance. One participant was explaining a mentor she described as committed to the profession and his students when she stated,

> Somebody who's willing to teach, willing to share their experiences and share their knowledge with you. He was always willing to help and take me under his wing. He gave me that opportunity to learn. His door was always open, he was willing to help, [and] he still is, and that openness and willingness to help and that caring about the individual, whether it be an athlete or one of his former students.

Quality ATs should place a high priority on being available to those whom they tutor or to whom they provide care. Commitment is obvious to others when they can rely on the AT to assist them as needed. However, these needs might not occur during expected or scheduled times. When describing a successful AT, another participant mentioned, "The job is not your typical 9 to 5; you need to take the opportunities you have to meet with coaches or athletes in the morning or late at night. You have to make yourself available."

Opportunities to present oneself as a quality AT do not always follow a set schedule. A certain amount of flexibility to meet with coaches or stay after a game to sit down and discuss an issue with an athlete is important. These moments show a necessary level of commitment to helping others.

Providing a deeper description of a committed AT whom she wanted to emulate, one participant discussed how her athletic training students would describe their mentor: "I would hope they would say, 'Caring and a communicator.' They would say I was understanding but also that I was enthusiastic about the field and about the athletes and patients. That I was dependable and trustworthy." An AT should be dependable and trustworthy to demonstrate commitment. The committed, quality AT is not only dependable but also enthusiastic about the opportunities to help others. Enthusiasm will help the AT develop a caring and committed relationship with others. Substantial commitment is needed to establish patient rapport by taking the time to show sincere caring and to fully communicate concerns.

**Integrity.** According to our participants, the construct of *integrity* included numerous characteristics revolving around a person's propensity to be honest. Quality ATs are loyal to the people with whom they interact and provide clear, concise answers that will not mislead anyone. In addition, our participants suggested that they need to be honest, and athletes need to trust them. One participant described a successful AT as one who "is loyal to the institution, the coaching staff as long as the coaching staff is doing the right thing, and work to the best of their ability." A quality AT should not confront a coach in front of an athlete for a choice with which he or she disagrees as long as it is not immediately harmful. This means that although an AT and a coach might disagree with each other on certain philosophical ideas, they should discuss these disagreements in private and not in a public forum. Derogatory open discourse among employees might negatively influence professional perceptions of ATs and athletic training. When describing how he would want an AT treating him, another participant elaborated on the construct of *integrity* by saying, "I want the athletic trainer to be straight with me. I don't want a generic answer. I don't want them to beat around the bush. Tell me what's wrong and how we can fix it." This participant clearly wanted to be educated and informed. If the injury is season ending or will be difficult to rehabilitate, then the AT needs to tell the patient and avoid vague, misleading, or even dishonest answers.

When describing the best AT she knew or with whom she had worked, a participant stated, "He was respected by the athletes. I don't want to say they look at you as their friend, but they develop a relationship where they feel that they can trust you." Again, the idea that an athlete must put his or her faith in the judgments and decisions of the AT is an important part of integrity and eventually in building rapport with patients. When describing an AT from the perception of being a patient, she further described an AT with integrity as "someone who is very approachable, easy to talk to, someone that I can trust, who will be honest with me and not hide information from me." This statement echoed previous statements from participants. To be perceived as having integrity, ATs should be honest in all aspects of their professional positions. Quality ATs are loyal and work hard providing care to their patients. Not showing loyalty or misleading a patient can undermine the trust they place in their health care provider. Similarly, not acknowledging limits to one's own requisite knowledge or not providing sound answers also will negatively affect integrity.

**Knowledge.** A certain amount of knowledge was deemed important by the participants and was inherent in becoming an AT. Athletic trainers need to be competent in a vast array of relevant knowledge to be proficient clinicians. However, quality ATs also capitalize on the importance and opportunities to share their knowledge with others. Furthermore, quality ATs continually extend themselves to garner more knowledge to improve the care they can provide. When describing how he wanted to be remembered, one AT expressed the importance of a broad range of knowledge:

> I want to be identified as somebody who understands, who is a very strong clinician [be]cause people, you want to be able to give them answers, so someone who stretches themselves a little bit. It's a difficult profession because we need to know so much, a little bit of so much, because a lot of times we are moving people into another direction. Whether it is we're sending [them] to an orthopaedist or a dentist or anything of that nature, we kind of have to know a little bit about everything.

Clearly, a quality AT has a vast amount of knowledge reaching across a wide array of topics. The demands of the profession necessitate a broad depth of medical knowledge. An insufficient base of knowledge will limit an AT's ability to become successful. When describing a successful AT, a participant concluded, "I think a successful athletic trainer is someone who first of all is competent in the domains of athletic training and the skills to perform the job." If an AT is deficient in the basic knowledge to perform the job, patients will not receive adequate care. Even if ATs pass a test of entry-level competence demonstrating a level of knowledge related to caring for athletes, they might lack other skills, such as communication skills, needed to perform on the job.

The construct of *knowledge* was not limited to knowledge attained by the person but included sharing the knowledge and educating others. This was demonstrated by the following comment:

> A successful athletic trainer is dedicated, a good communicator, and first and foremost an educator. No matter who you're educating, you need knowledge to educate a classroom or an athlete about an injury.

Although the idea that a quality AT has a vast amount of knowledge has been established, this participant's statement supported that they also must share knowledge with others. Educating future ATs would be a difficult task if an instructor lacked a breadth of comprehension. A wide array of knowledge or items of context on which to draw will help the quality AT relate explanations of injuries to understandable terms for patients and students.

In relation to education, a successful athletic trainer also was described as a person who

> can relate to all people, who has a solid academic background and knowledge of injuries but, more importantly I guess, the knowledge to know when to refer when something's out of their scope of practice or the ability to learn [a] new task when the opportunity presents itself or is needed.

A knowledgeable AT is one who not only possesses knowledge but also seeks opportunities to garner more knowledge. Learning is a lifelong process, and the AT who extends himself or herself to achieve a wider base of knowledge will provide better care to patients. The previous quotation also connects knowledge to 2 of the other 5 subconstructs: *integrity* and *communication*. Quality ATs admit when something is beyond their scope of ability, but they also can relate to and communicate with people with whom they interact.

### Two Higher-Order Constructs

The 5 lower-order constructs were developed by coding the participants' transcribed interviews 1 word at a time. The 2 higher-order constructs evolved after we reviewed the subconstructs and noticed that they could be classified into 2 larger, more generalized, higher-order constructs. The subconstructs of *care, communication, commitment,* and *integrity* are all affective; they evoke feelings and are driven by a person's values. These values enable ATs to establish rapport with other people. The subconstruct of *knowledge* can be described as an effective characteristic. Knowledge is the result or outcome of a course of study or experiences; however, it does not entail the ability to interact with others on a personal level and therefore does not equate to quality. Each of the 2 higher-order constructs contains components of the lower constructs and builds on the nomological network derived to develop an explanation of a quality AT.

**Affective Traits.** On numerous occasions, participants' descriptions of an AT they would like to emulate or hire included several of the 4 subconstructs in the affective domain. One participant addressed the need for caring, communication, and commitment:

> A great athletic trainer makes rehab[ilitation] fun for his athletes or student athletes; it's not just a job, it's encouraging athletes, reading their body language. Adjusting to their emotional status to help in the recovery process, your tone of voice is important, watching their eyes and helping them through feeling down when they are missing practice. Establishing a physical and emotional foundation to begin the rehab[ilitation] process.

An AT also needs to work with other health care professionals. Supporting this statement, the participant focused on the importance of integrity and communication:

> I would look at their relationships with the coaches and other professionals in the community, with physicians, etc. How well they get along with them. Are they able to communicate effectively? Do they have a working relationship at all? Is there some sort of mutual respect in communication between the two? Are they cooperative with one another? You know, if I call up a physician and need an athlete seen in a reasonable amount of time, are they going to be willing to do that?

Affective traits are expressed as central to an AT's ability to interact meaningfully with patients and with other professionals. Although difficult to quantify, affective traits cannot be curtailed without negatively affecting patient rapport. Patients have to trust and believe that the AT is committed to helping them return to their normal functioning levels, and this requires personal connections.

**Effective Traits.** Effective traits are outcomes that result from education. Knowledge gained in a didactic or experiential setting can be classified as *effective*. Participants did not describe the importance of knowledge in the same enlightening way as they discussed affective traits. The description of knowledge had no emotional component. However, knowledge is essential to the domains in which ATs are required to be competent. The CAATE has established minimal standards for entry-level ATEPs.[5] The BOC also ensures that an AT demonstrates minimal competency for certification. One participant stated, "An AT needs general knowledge of good movement patterns and what muscles are being moved. Anatomy and physiology are important to have an understanding of." Additional participant descriptions of a quality AT included the following: "Needs to be academically strong, needs to be current with the latest research, and that general knowledge is extremely important." All participants addressed the general need for knowledge. However, during rankings it was less important than the affective traits. Knowledge is of great importance, but without the affective traits, it does not help the AT interact with the patient.

All 5 subconstructs were apparent in the participants' statements. The constructs of *care, communication, commitment,* and *integrity* were discussed with passion and feeling and can be described as *affective*. The construct of *knowledge* was expressed as important, but if the AT was lacking the affective traits, the effective knowledge was not as important. The participants' statements supported the belief that although knowledge is essential, it is not necessarily an independent indicator of a clinician's ability to create positive medical outcomes.

## DISCUSSION

The derived theory demonstrates the characteristics of quality ATs from the perceptions of ATs. According to participants, ATs who demonstrate the ability to care, communicate effectively with others, show commitment and integrity, and value professional knowledge can be identified as quality ATs. These abilities might allow the quality AT to create positive relationships. These relationships will allow them to interact with patients and other professionals on a base of knowledge to improve patient care.

For the purpose of clarity, we refer to our theory as the quality affirmation theory. This theory holds that the 5 subconstructs feed into the 2 higher-order constructs (affective and effective), and these 2 higher-order constructs help describe the quality AT. Accordingly, recommendations are appropriate for professionals, researchers, and educators.

This theory also supports examining characteristics not traditionally assessed in an ATEP. If these characteristics will

allow ATs to become quality ATs (eg, work better with others, relate meaningfully with patients, and improve the standard of health care), they must be considered in educational settings. If the profession of athletic training is going to continue to advance, working well with others and improving patient care are important issues. Employment in a setting that limits one's ability to affectively relate causes ATs to experience internal conflicts. These conflicts lead to job dissatisfaction and are not conducive to recruiting and retaining quality ATs.

In an employment setting, the instruments used to assess the employed AT might or might not include items related to the identified characteristics of a quality AT. Those responsible for assessing ATs should understand the requisite characteristics of a quality AT and should strive to develop them. This might improve health care and working relationships and help ATs maintain a healthy family or personal life. A systematic review of current assessment instruments might be beneficial.

We recommend that employers and educators become familiar with the characteristics of quality ATs that participants identified. We further recommend that they work to develop and promote these characteristics. The methods might be in the form of qualitative or quantitative data collection. Employees could provide a rating of their agreement with the quality descriptors and then could rate the degree to which they demonstrate these characteristics. These data might provide constructive feedback to ATs, assisting them in their professional development.

Future research to address the limitations of this study also is warranted. We collected this information solely from ATs by using qualitative methods. Other people who would be able to contribute meaningful descriptors of quality characteristics include coaches in educational settings, physical therapists, and physicians in clinical settings, patients or athletes in all settings, and family members. Although these people might arrive at many of the same descriptors of a quality AT, they could add other important descriptors. In future studies, researchers should address the development of quality characteristics of ATs from various viewpoints. Quantitative methods would allow other questions to be asked and generalizations to be made.

## CONCLUSIONS

We examined an area of athletic training that often is discussed among professionals. However, no consensus appeared to exist in the literature. According to study participants, the quality AT exhibits the 5 latent constructs of *care, communication, commitment, integrity, and knowledge*. Care was described as being able to truly express concern for another's well-being. According to participants, quality ATs have a vast amount of knowledge and value lifelong learning. Being honest in all facets of the profession and communicating effectively with others also were identified as characteristics of a quality AT. Participants expressed that these characteristics require a conscientious commitment and dedication if one is to become a quality AT. The 5 latent constructs appeared to feed into 2 higher-order constructs: *affective traits* and *effective traits*. Study participants expressed that the quality AT uses the 5 latent constructs to create important interactions with their patients. The profession of athletic training is evolving constantly, and our research adds to the profession's growth by clearly identifying and defining characteristics needed to become a quality AT.

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