Prioritizing Patient-Centered Care when Integrating Athletic Training Students into Clinical Practice

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ABSTRACT

Athletic trainers are responsible for the patient care of student-athletes but also can be responsible for the education and mentorship of athletic training (AT) students through the role of preceptor. ATSs require extensive first-hand clinical experiences to prepare them for autonomous practice but must first feel comfortable with the skills they have learned to apply them in clinical practice. The unique clinical experience these ATSs experienced was the combined experience of a graduate assistant athletic trainer preceptor who also assisted as a teaching assistant in the classroom. This allowed the preceptor to help the ATSs expand on the information provided in the classroom and apply it directly to clinical experiences. The ATSs also used standardized patient encounters to practice clinical skills in a moderated environment to improve patient care before directly treating patients. The ATSs at this clinical education site each had the opportunity to practice autonomously in the treatment of patients. The preceptors taught by example and allowed each student to progress independently, making clinical decisions autonomously. Mock scenarios and standardized patients provided real-life clinical scenarios to the ATSs. These experiences helped determine the skills and knowledge that lacked proficiency and needed to be practiced before treating patients. To maximize patient-centered care, ATSs should be allowed to assist in daily decision-making and patient encounters until they feel ready to work more autonomously. Each AT student has a different learning style; early and frequent communication with ATSs will allow for a more beneficial clinical education experience.
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INTRODUCTION

Athletic trainers work with various patient populations to deliver patient-centered care at the highest standard. Patient-centered care is a shared decision-making process that considers patients' needs while treating them.[1] This can be achieved through cultural competency, using personal pronouns, setting short and long-term goals with the patient, and using patient-reported reported outcome measures. Athletic trainers typically work with patients daily and gain their trust through patient interactions. For many athletes, athletic trainers are the main point of contact when it comes to their healthcare needs. According to collegiate student-athletes, the two main strengths of athletic trainers regarding patient-centered care were providing culturally competent care and care that was respectful to what they wanted.[2] These athletes also responded that they wanted the care provided to them to be individualized and for them to be treated as a priority.[2]

One of the six core competencies required for accredited professional athletic training programs is patient-centered care.[3] The athletic training students (ATS) are taught the principles of patient-centered care in the classroom and expected to implement these concepts into clinical education experiences under the guidance of the supervising athletic trainer, otherwise referred to as the preceptor. Athletic trainers who serve as preceptors are tasked with the role of providing ATSs with mentorship and feedback in their clinical education. ATSs need direct clinical education experiences to improve their skills and confidence when treating patients, but the patient preference about their preferred provide must be considered when

being treated by an ATS or their supervising athletic trainer. It is the job of this preceptor, along with the athletic training program, to determine if the AT student is prepared to provide patient care and to ensure that the care they are providing is patient-centered and appropriate.

Research has been conducted analyzing patient satisfaction and patient-centered care of the services provided by athletic trainers. However, limited research is available on the athlete's perception of patient-centered care provided by ATSs because the patient care provided falls under the preceptor's responsibility. ATSs need to gain experience and confidence in preparation for certification, which occurs through direct patient care. This paper aims to provide a case study on a unique clinical experience to achieve the goal of proficiency in patient-centered care by ATSs.

ATHLETIC TRAINING STUDENT CHARACTERISTICS

Throughout the academic year, four professional-level ATSs were assigned to two preceptors who provided care to University of South Carolina swim and dive student-athletes. The ATSs were all enrolled in the same post-baccalaureate athletic training program. During the fall semester, a second-year AT student was present for the entirety of the semester and acted as a mentor to two different first-year ATSs assigned to the clinical education site. The second-year student had completed all classes for evaluation and therapeutic intervention and was able to perform injury evaluations and assist with designing treatment and rehabilitation plans. The two first-year ATSs were enrolled in evaluation and therapeutic intervention of lower extremity injuries and could implement evaluation and treatment skills learned in the classroom directly into clinical practice. During the spring semester, one first-year ATS had completed the lower extremity orthopedic evaluation class and was learning evaluation skills for head, neck, spine, and abdominal injuries. The program curriculum is detailed in **Table 1** below.

CLINICAL MENTOR CHARACTERISTICS

Two athletic trainers were employed at this clinical education site and both served as preceptors for the students throughout the year. The patient population consisted of NCAA Division 1 collegiate men's and women's swim and dive student-athletes aged 18 to 24 years old. The head athletic trainer was in their third year as the athletic trainer for swim and dive and has been certified for six years with previous experience working with patients in the NCAA Division I, high school, and orthopedic clinic settings. The head athletic trainer had four years of previous preceptor experience. The graduate assistant athletic trainer worked with the swim and dive team for the entirety of the academic year. The graduate assistant was in their second year as an athletic trainer and had previous experience working with secondary school patients between 10 and18 years old. This was the first year of preceptor experience for the graduate assistant. In addition to their duties with the swim and dive team, the graduate assistant athletic trainer was also a teaching assistant for the first-year students in both the fall and spring semesters, assisting in the evaluation and therapeutic intervention courses while providing additional help in the lab portion of the class, proctoring exams, and grading assignments.

EXPERIENCE

The goals of this clinical experience for the ATSs were to implement skills learned in the classroom and to improve autonomous clinical decision-making under the supervision of assigned preceptors. The ATSs assigned to this clinical site both in the fall and the spring semesters experienced unique clinical

Table 1. Professional Athletic Training Education Program Curriculum

Year 1 Classes
Summer
Human Anatomy for Health Sciences
Introduction to Therapeutic Interventions in Athletic Training
Principles of Evidence-Based Medicine
Principles of Athletic Training Lab
Fall
Evaluation & Therapeutic Intervention of Lower Extremity Injuries (+Lab)
Behavioral Health & Wellness
Clinical Experiences in Athletic Training I
Spring
Evaluation & Therapeutic Intervention of Head, Neck, Spine, and Abdomen Injuries (+Lab)
Clinical Pathology & Pharmacology in Athletic Training (+Lab)
Transforming Health Care for the Future
Clinical Experiences in Athletic Training II
Year 2 Classes
Summer
Evaluation & Therapeutic Intervention of Upper Extremity Injuries (+Lab)
Emergency Management Practices in Athletic Training
Clinical Experiences in Athletic Training III
Fall
Athletic Training Administration
Advanced Clinical Skills in Athletic Training
Clinical Experiences in Athletic Training IV

teaching by having a preceptor (the graduate assistant athletic trainer) who was also a teaching assistant and helped educate ATSs in both the classroom and clinical setting. The two preceptors were able to work together to provide educational examples and different views on patient care. In the fall semester, the second-year ATS mentored both first-year ATSs and took autonomy when writing rehabilitation programs for lower extremity injuries. The first-year ATSs, with the assistance of the graduate assistant athletic trainer, took the information they had just learned in class regarding lower extremity injuries and transferred that information into sport-specific demands required of the patients by designing rehabilitation plans that conformed to the needs of the sport. In the spring semester, the first-year ATSs had the opportunity to evaluate any lower extremity injury as they had completed that class in the fall and any spine, neck, or abdomen injuries once they learned about them in class that spring.

The graduate assistant athletic trainer was able to observe in the classroom exactly how the ATSs were being taught and assist during additional, structured practice lab sessions to ensure the students were performing all skills correctly. The practice lab was a time for ATSs to review class material, including skills learned in their orthopedic evaluation and clinical pathology courses. While some ATSs practiced their skills and signoffs in practice lab only, the ATSs at this clinical site practiced evaluation and patient care skills weekly with the preceptors because the graduate assistant athletic trainer was aware of the material they were practicing in class. The graduate assistant athletic trainer would portray a patient and have the ATSs perform clinical skills and practice patient-centered care in a mock scenario first to offer corrections and advice before allowing the ATSs to work with patients.

Because the graduate assistant athletic trainer was present one day a week in the evaluation classes for the first-year ATSs, they could also implement material the ATSs were learning directly into clinical practice

that same day. This included implementing new rehabilitation exercises, documentation, range of motion and special tests, and conversations reviewing classroom material and applying it to real-life experiences and patients. By observing the ATSs working one-on-one with a patient, even in a mock scenario, the graduate assistant athletic trainer was able to find ways to improve the ATSs' patient care and help implement these improvements directly into clinical practice. As the ATSs became more proficient in their clinical skills, as graded on a 0-2 point scale (0 being could not complete, 1 being able to complete skill but not proficiently, and 2 being proficient application of clinical skill), the preceptors allowed the ATSs to become more involved in the decision-making process of patient care instead of directing the ATSs with what to do.

The professional master's athletic training program also uses a standardized patient (SP) encounter as a part of the evaluation and treatment education courses. A SP is a layperson evaluated by the ATS and pretends to have a certain injury/illness.[4] These encounters can be observed via webcam, so the simulation is realistic for the student, providing additional training and practice in real-life scenarios in a moderated environment. The role of the graduate assistant athletic trainer was to watch the live recording of the SP encounters and provide feedback and grading to the ATSs as part of the teaching assistant duties.

RESULTS AND DISCUSSION

Outside of providing patient care, another potential part of an athletic trainer's job is to educate ATSs about the profession by working as a preceptor. ATSs work with their preceptors to gain confidence in patient care by implementing core competencies required for certification. ATSs have shown that they do implement core competencies in their patient encounters.[5] In a study examining ATSs, as the number of patient encounters for each ATS increased, the total number of core competencies students used in clinical practice also increased.[5] It was also found that patient-centered care was the most likely core competency implemented into the clinical practice of these students.[5] The ATSs had many opportunities to use patient-centered care throughout their time with the swim and dive clinical experience as they became more comfortable performing clinical skills practiced with the preceptors. The ATSs were tasked with leading rehabilitation sessions with patients and performing evaluations on areas of the body they had already learned once they demonstrated competence in these areas. The ATS in the spring semester was apprehensive when taking the initiative and working autonomously and relied on the guidance of the preceptors when making all clinical decisions. This ATS was limited to gaining firsthand experience as they were in class four days a week during open treatment/clinic hours at the clinical site. In addition, this ATS had fewer real-life evaluations because the teams were in their off-season for most of the clinical rotation. To supplement the ATS's learning, the preceptors implemented mock clinical scenarios throughout the week to allow the ATS to practice evaluation and treatment skills.

The preceptors at this clinical site allowed both the first- and second-year students as much autonomy while treating patients as the ATSs were comfortable with. According to a survey of approved clinical instructors (former term to describe preceptor), most reported that the professional athletic training program required students to be evaluated on clinical proficiencies in a controlled classroom setting before allowing them to practice on actual patients.[6] As the ATSs develop their clinical skills through the classroom, they also practice those skills on patients at assigned clinical sites once the preceptor determines the professional students are ready. There is a balance in allowing ATSs to gain direct clinical experience while also putting the patient's needs and safety first when students do not have enough experience to provide a practical evaluation. The roles of the preceptors at this clinical education site were to determine when the ATSs were ready to provide autonomous patient care, determined by competence in clinical skills and ability to determine clinical decisions. In the second semester, the ATS struggled to take initiative with patient care,

and the preceptors were flexible when allowing more time and resources and better address that individual AT student's needs through additional mock scenarios before they were ready to provide patient care to student-athletes. Although the ATS was less involved with direct patient care, the preceptors ensured the involvement of the ATS when designing rehabilitation and treatment plans, using concepts taught in the classroom and explaining how they correlated to clinical practice.

From the ATS's perspective, preceptors who allow students to grow in their clinical practice of critical thinking, decision-making, and independent thought help with their transition to autonomous clinical practice.[7] It was found that ATSs benefited the most from and implemented the most core competencies when they assisted their preceptor during a patient encounter versus just observing or working independently.[5] By assisting their preceptors, the ATSs were corrected and followed the lead of their preceptors when providing patient-centered care. Allowing ATSs to be part of the decision-making process allows them to develop these skills. In a study examining patient outcomes after treatment performed by ATSs, there was no difference in the functional improvement of the patient when comparing treatment performed by ATSs in their first clinical internship versus those in their second.[8] ATSs can provide patient care regardless of whether they are in the first or second year of their athletic training program and will benefit from gaining hands-on experience early in their education. Being able to apply skills they learn in the classroom to "real-world athletic training learning experiences" is important to the ATS's education and development of confidence in themselves and their skills.[9] Each ATS at this clinical education site learned best in different ways. The second-year student was proficient in most of their clinical skills and abilities but lacked confidence when making clinical decisions and looked to the preceptors for answers to specific treatment and exercises to do with patients. Toward the end of the semester, the second-year ATS was performing full evaluations, writing rehabilitation and treatment plans for patients, and conversing with coaches. This ATS learned best through experience and was pushed to work outside their comfort zone to make clinical decisions autonomously. All three first-year ATSs learned best through collaborative practice, working with a preceptor to provide treatment and make clinical decisions. However, they all progressed throughout the clinical rotation to become more confident in their patient care choices. They became competent in clinical skills practiced at this clinical education site.

Other healthcare professions recognize the importance of teaching patient-centered care to their students and residents. In a survey among pharmacy residents, the program used interviews with veterans to improve patient-centered care.[10] The residents reported that through the interview process, they helped create positive relationships with patients and improved upon their personal skills as a clinician.[10] For medical school students, those in their clinical years of education had a more positive perspective towards empathy and, in turn, had better support toward patient-centered care.[11] The results of this study show that as ATSS increase time in clinical education with patient interaction, they can incorporate more components of patient-centered care into their clinical practice and improve relationships with patients. However, medical students spend a great deal longer immersed in a clinical experience than ATSs do, forcing ATSs to develop communication and clinical skills much quicker. There is a lack of time and real-life opportunities for these ATSs to provide evaluations for various medical conditions and injuries.[6] Medical students participating in their clerkship rotation with clinical experience ranging from zero to 10+ previous clinical rotations recognized the impact of patient-centered care on patients and medical professionals.[12] These students were aware that care that is individualized to the patient creates shared responsibility and decision-making between the patient and the health care provider.[12] ATSs benefit from assisting their preceptor during patient encounters, meaning that the preceptor and ATS can work as a team to evaluate athletes to ensure that the care provided is appropriate while allowing the ATS firsthand experience.[5]

There has been an increased use of SP encounters as part of the clinical education of healthcare professionals. In a study on nursing students regarding the use of a SP encounter, it was found that those nursing students who participated found it to be more realistic when compared with using a simulated patient or mannequin.[13] These nursing students also reported increased self-confidence after participating in the SP encounter.[13] The ATSs are individually evaluated on their clinical skills using SP encounters several times throughout their two years in the education program. Usiing the information gained from observing the ATSs in the SP encounters, the graduate assistant athletic trainer could implement specific skills or focuses that the ATSs struggled with during weekly practice sessions and daily encounters with patients. The SP encounter allows the ATS to fully evaluate a patient, determine a diagnosis and treatment plan, and practice patient-centered care without the assistance of a preceptor. The use of SP encounters can help increase confidence in healthcare students by allowing them to perform a full evaluation autonomously and in a safe environment before clinical practice.

CLINICAL TEACHING BOTTOM LINE

Patient-centered care can be improved among ATSs by implementing the core competencies during clinical education. This can be achieved by observing and working with preceptors in clinical practice. The safety and well-being of the patient are the priority of the healthcare provider; to prepare ATSs for autonomous clinical practice, they must be introduced to clinical situations and decision-making regarding patient care. It is always important to put the best interests of the patient first, and before any patient encounters, the athletic trainer should confirm with the patient that they are comfortable with ATSs assisting and providing patient care. Being able to provide continuity of learning from the classroom to the clinical site can help improve ATSs' retention and implementation of clinical skills and practice. Still, as clinical educators, preceptors should strive to include ATSs in the patient care and decision-making process rather than relying solely on observation.

Each ATS will learn best in different ways, and good communication and flexibility are required on the preceptor's part to be an effective teacher. The recommendations for clinical practice based on the research to maximize patient-centered care and the ATS's experience are to allow ATSs to assist in daily decision-making, and patient encounters until they feel ready to work more autonomously. The professional athletic training educational program can also utilize SP encounters in didactic education to help create scenarios that ATSs might not see in clinical practice to give them a variety of experiences and practice in a controlled environment. Further, athletic training programs should encourage the integration of preceptors into didactic education to enhance the connection between classroom and clinical education. The most important aspects of being a preceptor are good communication with the ATS, instilling confidence in these students by providing constructive feedback, and allowing them to successfully practice their skills with proper guidance to prepare them for autonomous practice. ATSs are the profession's future and must obtain the skills to provide patient-centered care.

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