

Supervised Autonomy

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Objective: The primary objective of this paper is to present the evolution, purpose, and definition of direct supervision in the athletic training clinical education. The secondary objective is to briefly present the factors that may negatively affect the quality of direct supervision to allow remediation and provide higher quality clinical experiences for athletic training students.

Background: Athletic training educators and clinical instructors often engage in discussions regarding the direct supervision of ATs. These discussions tend to center around concerns about ATs preparation, and how the current level of preparedness differs from that of the past. Some believe that direct supervision, rather than unsupervised practice, retards the ATs' development; however, there is no current literature to support this concept.

Description: Supervision means to watch or direct, while mentoring means to tutor, instruct, or guide; therefore, mentoring may be more descriptive of the desired/intended interaction between an ATs and their clinical instructor (CI). The intent of supervision is for an ATs to refine and improve their clinical proficiencies under CI guidance. For this to occur, the CI must alter their interactions with the ATs as the student evolves.

Clinical Advantages: Developing the CIs' understanding of the intent and continuum of expectations associated with direct supervision will allow them to maximize their students' education and position them to become highly skilled and confident Athletic Trainers.

Key Words: Direct supervision, clinical education, clinical instruction, mentoring

Because clinical education is paramount to the development of competent health care professionals, the clinical education of athletic training students and other health care providers is well-studied. Virtually all medical and health care education programs require clinical education or experiences because it allows students to practice what they have learned in didactic and laboratory settings in a safe, directed, practical, and hands-on

environment. The goal of clinical education is to help the students become better clinicians by facilitating the transition from simply doing a skill correctly, as directed by his/her CI, to incorporating the skill proficiently in the clinical environment. In other words, clinical education encourages both skill mastery and integration based upon sound problem solving and clinical decision-making. Clinical education also provides the opportunity for practicing clinicians to mentor future professionals' development and refinement of knowledge, skill, and clinical decision making within the culture of the profession.

While the value of clinical education in any health care profession is implied and generally accepted, it is often a topic of discussion and disagreement among educators and clinicians. Many myths, misconceptions, philosophical differences, and misunderstandings about the requirements and purpose of clinical education and the direct supervision of students persist. These issues are not unique to athletic training; some believe athletic training has arrived as true health care education because ATs are now having the same philosophic disagreements between the educators and the clinicians as other health professions are having. Athletic training educators can learn from our peer professions when it comes to the clinical education of our students. Therefore, the primary objectives of this paper are to present the evolution,



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purpose, and a clear depiction of the intent of direct supervision in athletic training clinical education. The secondary objective is to briefly present the theoretical factors that may negatively impact the quality of direct supervision. We hope that by identifying these factors we can help athletic training educators and clinical instructors continue to develop and ultimately improve the quality of clinical education.

Direct Supervision—What It Was

Contrary to an often-heard misconception, the intent and the requirements of direct supervision have not significantly changed over the past 30 years. A review of early definitions of direct supervision (see Table 1) from the National Athletic Trainers' Association (NATA), the NATA Board of Certification (currently known as the BOC), the Commission on Accreditation of Allied Health Education Programs (CAAHEP), and the Commission on Accreditation of Athletic Training Education (CAATE)¹⁻⁴ does reveal some evolutionary changes in the definition; however, the extent of those changes are not as dramatic as one might expect. The difference between today's clinical education practices and those of the past may be attributed to both societal and professional practice changes. Health care is now associated with increased liability and risk of litigation. These legal concerns have, in turn, led to changes in the level of enforcement of direct supervision requirements by accreditation agencies.

It is notable that even the earliest definitions^{1,2} of direct supervision recognized the legal responsibility of the supervising athletic trainer, the need for qualified supervisors, the need for communication, and the physical presence of the supervising athletic trainer. It is not until the 1987 definition of direct supervision, published in the *NATA Certification News*, that the educational component of supervision for the student appears stating that "direct supervision can be thought of as a process by which a certified athletic trainer and at least one or more students participate in an effort to establish, maintain, and elevate a level of competence."² This same article also indicated that the "supervisor should possess the skill, education, and experience in excess of the student," that supervision "should be provided in varied settings", and that "it should be structured according to the student's level of preparation and experience."² From the earliest definitions of direct supervision, it is apparent that the legal and educational implications were understood. The early definitions have plainly evolved to reflect the ultimate concern for the health and safety of the patient and the athletic training student's (ATS's) education. It is equally clear that just as previous definitions have evolved so too will the current definition.

Why was direct supervision not more stringently enforced in the 1970s, 1980s or the 1990s? The answer to this may be purely academic; however, it is also worth exploring in order to provide a better understanding of today's issues. The early emphasis of clinical education was quantity-based (e.g. clinical clock-hours) as opposed to the current use of the competencies, the clinical

proficiencies and other assessment outcomes.^{4,5} Therefore, the BOC's elimination of the clock-hour requirement for graduates of accredited programs in 2002, and the profession's elimination of the internship route to BOC examination eligibility in 2004,⁵ were important factors in changing clinical education. Since the sheer quantity of clinical hours does not necessarily equal good education, the move away from quantity toward quality clinical education began; however, many of the cultural aspects of the quantity-based, unsupervised on-the-job training still seem to remain.

Anecdotal claims that today's athletic training students are unprepared because they don't work enough hours or they need to be unsupervised in order to learn to make independent decisions are largely based on past practice, are cultural in nature, and fall under the domain of professional socialization rather than professional education. According to organizational theorists,⁶ this is significant as the culture of an organization is the most difficult and emotionally-charged paradigm to change. It takes time to change the culture of an organization, especially if the organization is a profession. In addition, there must be a distinction between professional socialization and professional education. Learning the culture of a profession is not the same as learning the knowledge and skill necessary to practice a profession.

Although not documented in the research literature, the student workforce issue has also had a negative impact on athletic training education. In the past, ATSS in both accredited and internship programs were very often functioning as a replacement for staff athletic trainers by providing unsupervised athletic training services to athletic teams.^{7,8,9} An enforcement of the requirement that ATSS be directly physically supervised by small, already over-worked athletic training staffs, meant a reduction in health care services and an increased workload for the staff. Using students as workers is not unique to the athletic training profession. This model of student clinical experience has also been documented in the nursing¹⁰ and physical therapy¹¹ professions. Perhaps the student workforce issue contributed to the dramatic rise in accredited programs, from 132 at the end of 2000 to a high of 364 CAATE accredited programs in 2007 (In conversation with L. Caruthers, CAATE March 2008). It took 31 years for the first 132 accredited programs to develop and only 7 years and the elimination of the internship route to BOC certification for another 232 programs to develop. While this is purely speculative, it is possible that the demise of the internship route to certification and potential loss of the student workforce contributed to rapid program development. If a correct assumption, is it indicative of the culture of the profession and the need for students as workers rather than students as learners?

Direct Supervision—What It Is and What It Is Not

The current CAATE definition of direct supervision (Table 1) requires the Clinical Instructor (CI) to be physically present and have the ability to intervene on behalf of the athletic training student and the patient.⁴ With the CAATE definition in mind, some of the common misperceptions of acceptable supervision must be

Table 1. The Definitions of Direct Supervision in Athletic Training Education

Year	Definition
1978	“Apprentice must have continual communication and supervision on a regular basis and the supervising trainer must be ultimately responsible legally for the care of the athletic team if any non-contact hours are to be approved. Direct contact hours of supervision may be approved for athletes not legally under the supervising trainer if he/she is directly supervising the apprentice trainer in their care (at track meets, etc.). Communication for non-contact hours must be personal and continual on a regular basis with physical presence required for a minimum of two days a week.” ¹
1987	“As defined by the NATA, Direct Supervision involves <i>daily personal contact</i> between the Supervising Athletic Trainer and the Student Athletic Trainer in the <i>same</i> athletic training setting. Direct Supervision – the supervising athletic trainer shall afford supervision adequate to assure (following written/verbal instructions) that the student performs his/her assignments in a manner consistent with the standards of practice in the profession of athletic training.” ²
2001	“ACI/CI must be physically present and have the ability to intervene on behalf of the athletic training student to provide on-going and consistent education. The ACI/CI must consistently and physically interact with the athletic training student at the site of the clinical experience.” ³
2005	“Supervision of the athletic training student during the clinical experience. The ACI and/or CI must be physically present and have the ability to intervene on behalf of the athletic training student and the patient.” ⁴

eliminated. For example, CI contact with a student via cell phone or walkie-talkie does not meet the definition of physically present, nor does being within a 3-5 minute response time to a student. This has been anecdotally called the “proximity rule” or the “4 minute rule.” There is no such rule regarding the direct supervision of the ATS. The misconception that the ability to respond “within 3-5 minutes” meets the definition of direct supervision may in fact come from the National Athletic Trainers’ Association’s (NATA) Recommendations for the Appropriate Medical Coverage of Intercollegiate Athletics (AMCIA), which refers to qualified providers or Certified Athletic Trainers and not to ATS supervision.¹² Another misconception is that intermittent contact with, or “dropping in,” on a student is direct supervision. This is not true. If the CI is not physically present with the ability to intervene, the student is not being supervised.

Perhaps the biggest myth is that students cannot develop independence or self-confidence, the ability to think critically, or the ability to make decisions while being directly supervised. Many

clinicians believe that autonomous practice is required for developing these skills. To the contrary, direct supervision of clinical experience is very important in the development of all of these ATS characteristics and in passing the BOC examination.^{13,14}

In 2002, 32% of ATS reported providing medical care and athletic training-related coverage beyond that of a volunteer first responder.⁷ Four years later, 60% of head athletic trainers surveyed by Weidner and Pipkin⁸ reported they had students who were authorized to provide unsupervised athletic training services, thus they were acting outside the scope of clinical education. When so many athletic training students are still being placed in unsupervised settings, how can direct supervision be blamed for anecdotal claims that today’s entry-level athletic trainers lack self confidence, critical thinking or decision making skills? Since many students are functioning as unsupervised first responders (i.e. voluntarily providing first aid only and not functioning as athletic training students), it is illogical to expect that experience to help students develop the skills necessary to function as an entry-level athletic trainer. When ATS are acting unsupervised, they are not being guided or mentored, and are unable to learn by observing the practicing CIs.

Are the expectations that some employers or practicing clinicians are placing on entry-level graduates simply too high? Developmental models such as the Dreyfus Model of Skill Acquisition,¹⁵ Benner’s application of the Dreyfus model to nursing,¹⁶ the Conscious Competency Model,¹⁷ or even Bloom’s Taxonomy¹⁸ provide cognitive and experiential models demonstrating a developmental continuum occurring over time can help answer this question. In fact, Benner’s¹⁶ qualitative application of the Dreyfus model to nursing practice demonstrates the contrast between novice and expert nurses in terms of critical thinking, clinical skills, and self-confidence, when measured in years after entry into practice and not months. Benner’s work places the development of nurses on a continuum where nurses do not reach the competence stage (stage 3 of 5) until they have obtained 2-3 years of working experience.¹⁶ Given Benner’s work, is it realistic to expect graduates of entry-level athletic training education programs to differ significantly?

The misconception that direct supervision equates to hand-holding or constantly looking over the students’ shoulders is not sound, nor does it agree with any of the developmental models. Direct supervision does not mean the CI must be physically looking over the ATS’s shoulder and directing their every move; rather it is a minimal requirement for the presence of a CI, and does not dictate the type of interaction between the CI and the ATS. In order to develop components of critical thinking, clinical education should include coaching and mentoring and avoid directing.¹⁹ *Supervised Autonomy* allows for direct supervision of the student while mentoring the student to foster the independent, but guided, application of clinical proficiencies and critical thinking skills to match the individual student’s level of clinical competency. In other words, the supervision remains direct, but the types of interactions between the CI and the ATS change to meet the

student's needs and skill level. An ATS who has just learned a skill needs to have more over-the-shoulder supervision, while an ATS who learned the same skill the previous year, may need more questioning regarding his or her thought process as to why he or she completed the clinical proficiency in that manner.

Perhaps clinical education would be better served by replacing the term "direct supervision" with "direct mentoring"? How can a student be expected to develop his or her clinical-decision making skills and self-confidence if he or she is always told what to do and how to do it? According to dictionary definitions²⁰ of supervision and mentoring (Table 2), mentoring is the more descriptive type of interaction that should be occurring in clinical education. The concept of mentoring or mentoring-like behaviors is supported in the athletic training education literature^{5,21-24} as well as the literature of other health professions.^{10,11,16} Athletic training should consider discarding the less descriptive term direct supervision in favor of terminology (e.g. direct mentoring) that is more descriptive of the type of desired interaction between CIs and ATSS.

Table 2. Definitions of Supervision vs. Mentoring

Term	Definition
Supervision	"The action, process, or occupation of supervising; <i>especially</i> a critical watching and directing (as of activities or a course of action)." ¹⁹
Mentoring	"To serve as a mentor, tutor; a person charged with the instruction and guidance of another." ⁹

Factors that Influence Clinical Education

As athletic training educators, we know quality clinical education experiences are critical to the development of the ATS,^{5,22,23} however simply defining direct supervision and describing the ideal type of clinical supervision or mentoring of the ATS is short-sighted. In order to gain a better understanding of the challenges of clinical education, it is necessary to understand factors that influence clinical education. There is not one single factor that has been identified as the greatest impediment to quality clinical education, nor is there one single factor that will turn a good CI into a great one. Rather, it is more likely a complex interaction among many factors that determines the quality of clinical education. These factors may vary depending on the clinical education setting and can include role strain,^{14,25} intrinsic student factors (millennial students),^{19,26} qualities and intrinsic factors of clinical instructors and settings,^{5, 14,21-23,27,28} student workforce paradigm,^{7, 8, 29} and the connection between the didactic and clinical settings.²⁹⁻³¹

While it is beyond the scope of this paper to present in detail all of the literature on factors that impact the quality of clinical education, it is necessary to acknowledge that multiple factors do influence the quality and quantity of the interactions between the CI and the ATS at any given clinical site. Whether it is job role strain and the CI simply does not have the time to devote to the ATS because patient care rather than teaching is his or her priority, or

whether it is a lack of student motivation or critical thinking skills, the educational outcome may be the same. The challenge of athletic training clinical education today, for educators and clinicians alike, is to determine the best method(s) to enhance the mentoring between CIs and ATSS, while still providing direct supervision. Just like there is no one recipe for baking a cake there is no one recipe for successful clinical experience despite variations in the ingredients. Just as it is important for the baker to recognize when some ingredients just don't belong in a cake, it is important to recognize when the ingredients simply will not create a positive clinical experience for the student. If a CI does not have the time or desire to mentor students, then that individual should no longer be a CI who is charged with the mentoring of students and vice versa. Athletic training educators need to assure that ATS clinical assignments are based on student educational needs rather than selecting CIs based on convenience or the clinical needs of the setting. Moreover, good CIs need to be praised for the talents they bring to their students. It is necessary to understand that many factors that influence clinical education and to work to improve the weak areas in order to further strengthen already strong areas and to drop those that cannot be repaired.

Conclusion

High quality, direct supervision, or direct mentoring, of ATSS is essential to student development. Clinical instructors must be physically present with the ability to intervene or the ATS is not being supervised; but, that is only the minimum expectation. Clinical education is more than the mere presence of a CI working next to a student; rather clinical education is an important component of student learning. Supervision does not mean that students cannot make autonomous decisions or develop their clinical skills, critical thinking skills, and self-confidence. To the contrary, these things will occur if CIs mentor students in a way that fosters independent, but guided application of knowledge and clinical skill in the clinical setting.

References

1. McLean L. Attachment to National Athletic Trainers' Association Certification committee's report to the Board of Directors, accepted in June 1978. Located at the NATABOC office, Omaha, Nebraska.
2. National Athletic Trainers' Association. *NATA Certification News*. 1987;4:5.
3. Commission on Accreditation of Allied Health Education Programs. *Standards and Guidelines for the Athletic Trainer*. Chicago, IL; Commission on Accreditation of Allied Health Education Programs; 2001.
4. Commission on Accreditation of Athletic Training Education. *Standards for the Accreditation of Entry-Level Athletic Training Education Programs*. <http://caate.net/documents/standards.12.7.07.pdf>. Accessed on March 1, 2008.
5. Laurent T, Weidner TG. Clinical-education: Setting standards are helpful in the professional preparation of employed, entry-level certified athletic trainers. *J Athl Train*. 2002;37(4):248S-254S.

6. Bolman LG, Deal TE. *Reframing Organizations: Artistry, Choice, and Leadership*. San Francisco, CA: Jossey-Bass; 2003.
7. Weidner TG, Noble GL, Pipkin JB. Athletic training students in the college/university setting and the scope of clinical education. *J Athl Train*. 2006;41(4):422-426.
8. Weidner, TG, Pipkin J. Clinical supervision of athletic training students at colleges and universities needs improvement. *J Athl Train*. 2002;37(4):241S-247S.
9. Davis C, Missasi S. Student athletic trainer vs. athletic training student: get over it and get on with it! *NATA News*. August 2001:16.
10. Melia K. *Learning and Working: The Occupational Socialization of Nurses*. London, UK: Tavistock; 1987.
11. Harris D, Naylor S. Case Study: learner physiotherapists; perceptions of clinical education. *Educ Training Tech Intl*. 1992;29(2):124-31.
12. National Athletic Trainers' Association Recommendations and Guidelines for Appropriate Medical Coverage of Intercollegiate Athletics. Available at: <http://www.nata.org/statements/support/AMCIARecsandGuides.pdf>. Accessed April 6, 2008.
13. Weidner TC, Henning JM. Historical perspective of Athletic Training clinical education. *J Athl Train*. 2002;37(4):222S-228S.
14. Weidner TG, Henning JM. Importance and applicability of approved clinical instructor standards and criteria to certified athletic trainers in different clinical education settings. *J Athl Train*. 2005;40(4): 326-332.
15. Dreyfus SE. A five-stage model of adult skill acquisition. *Bulletin of Science, Technology, and Society*. 2004;24(3):177-181.
16. Benner P. *From novice to expert: Excellence and power in clinical nursing practice*. New Jersey: Prentice-Hall; 1984.
17. Howell WC, Fleishman E A. (eds.), *Human Performance and Productivity*. Vol 2: Information Processing and Decision Making. Hillsdale, NJ: Erlbaum; 1982.
18. Bloom BS. *Taxonomy of educational objectives: Cognitive domain*. New York: McKay; 1956.
19. Lever-Dunn D, Harrelson GL, Martin M, Wyatt T. Critical-thinking predisposition among undergraduate athletic training students. *J Athl Train*. 2002;37(4):147S-151S.
20. Merriam-Webster Online. www.merriam-webster.com/. Accessed on May 25, 2008.
21. Erickson MA, Martin M. Contributors to initial success on the National Athletic Trainers' Association Board of Certification Examination as perceived by candidate sponsors: A Delphi study. *J Athl Train*. 2000;35(2):134-138.
22. Laurent T, Weidner TG. Clinical instructors' and student athletic trainers' perceptions of helpful clinical instructor characteristics. *J Athl Train*. 2001;36(1):58-61.
23. Weidner TG, Henning JM. Development of standards and criteria for the selection, training, and evaluation of athletic training approved clinical instructors. *J Athl Train*. 2004;39(4):335-343.
24. Pitney WA, Ehlers GG. A grounded theory study of the mentoring process involved with undergraduate athletic training students. *J Athl Train*. 2004;39(4):344-351.
25. Henning JM, Weidner TG. Role strain in collegiate athletic training approved clinical instructors. *J Athl Train*. 2008;43(3):275-283.
26. Monaco M, Martin M. The millennial student: A new generation of learners. *Athletic Training Education Journal*. 2007;2(1):42-46.
27. Miller MG, Berry DC. An assessment of athletic training students' clinical-placement hours. *J Athl Train*. 2002;37(4):229S-234S.
28. Berry DC, Miller MG, Berry LM. Effects of clinical field-experience setting on athletic training students' perceived percentage of time spent on active learning. *J Athl Train*. 2004;39(2):176-184.
29. Knight KL. Progressive skill development and progressive clinical experience responsibility. *Athletic Training Education Journal*. 2008;1(1):2-4.
30. Carr WD, Drummond JL. Collaboration between athletic training clinical and classroom instructors. *J Athl Train*. 2002;37(4): 182S-188S.
31. Weidner TG, Henning JM. Historical perspective of athletic training clinical education. *J Athl Train*. 2002;37(4):222S-228S.