**Reshaping Athletic Training Education in the 21st Century**

**Introduction**

In May 2019, the Executive Council for Education (ECE) began the discussion of revisiting the 2012 document: Future Directions in Athletic Training Education. The goal of the project was to determine which recommendations from the Future Directions document had been addressed and establish a framework for the future of athletic training education.

The ECE developed a steering committee with 4 workgroups that represented key stakeholders in athletic training: professional education, early career athletic trainers (ATs) mid-late career ATs, and clinical education. Over the course of several years these workgroups collected data, examined the literature, and developed recommendations that reflected the interests of their stakeholders. These workgroups then put forth their recommendations to the steering group, which created this document of combined recommendations anchored in Strategic Alliance Collaboration and the Athletic Training Strategic Priorities:

1. NATA Collaboration with the Strategic Alliance
2. Professional Education
3. Transition to Practice
4. Advanced Clinical Practice
5. Advanced Practice Leadership, and
6. Stewardship.

This document is designed to be a guideline for athletic training education with inclusion of other major initiatives such as the NATA DEIA Commitments and the BOC Continuing Professional Certification.

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***Preamble:***

***These recommendations were generated out of careful consideration of extensive data provided by the working groups. These recommendations are not intended to be exclusive of the complexity of issues facing athletic training education, but do reflect current priorities for athletic training education in the future. As athletic training education is a collaborative effort, these recommendations reflect the direction of the NATA but will require collaboration and communication, in some instances, with members of the Strategic Alliance as a whole. These recommendations are intended to articulate the voice of the NATA.***

**NATA Collaboration with The Strategic Alliance**

***Although the recommendations are those of the NATA, collaboration with the Strategic Alliance is essential. The Strategic Alliance is structured so that each organization serves specific unique needs of the athletic training profession. Although separate, the impact of the collaborative efforts of the Board of Certification (BOC), Commission on Accreditation of Athletic Training Education (CAATE), National Athletic Trainers’ Association (NATA), and NATA Research and Education Foundation (NATA Foundation) on the profession is profound. The process of change can result in the emergence of uncertainty. Collaborative change leadership is essential to establish a culture of confidence as this profession undergoes significant, and on-going transformation. As athletic training education continues to change, the collaboration, transparency and support of these organizations will guide the profession. As an entity, the Strategic Alliance will have a powerful impact on the future directions of the profession through innovative and authentic initiatives developed to guide and support the profession.***

1. **Efficient collaborative communication and action transcending current role delineation of Strategic Alliance members related to critical issues and threats facing the profession would better position ATs for success in the future.**

Coordinated communication, action, and resources within and between Strategic Alliance members, external organizations, and ATs regarding transformative issues facing the profession would promote efficiency, effectiveness, and clarity. For example, all entities may consider consolidating resources relative to volunteer committees whose mission reflects common goals, including but not limited to, increasing diversity, equity, inclusion, and access or leadership development.

1. **The NATA should establish a process by which continuing education and professional development opportunities continuously offer innovative content and mechanisms of delivery that meet or exceed the standards of professional education and are consistent with contemporary BOC practices.**

Professional education and clinical education changes have created significant stressors on the profession, specifically, the faculty and preceptors who are required to maintain rigorous standards.1 As a result of educational reform and professional maturation as a discipline, mid- and late-career ATs need additional professional development opportunities that support their ability to deliver optimal healthcare with current practice standards. Additionally, ATs may desire professional development opportunities that facilitate their career advancement and leadership skills. The NATA can consider examining the needs of practicing ATs and work collaboratively to help shape professional development offerings in innovative content and delivery models with consideration of medical models to facilitate effective and efficient professional growth.

1. **The NATA, with support from the Strategic Alliance, needs to integrate digital health and health information technology into the practice of athletic training.**

As athletic training professionals prepare for the tremendous changes facing healthcare in 2030 and beyond, the NATA should provide adaptive opportunities to grow in the digital revolution. The continual expansion of technology continues to affect society, education, and healthcare.2 The use of telehealth, mobile medical applications, health information technology, and electronic health records are essential skills to be competitive. The NATA can examine the use of digital health and innovative on-line educational approaches in athletic training to investigate and establish resources for integrating technology throughout the profession.

**Professional Education**

***Curricular design, pedagogical delivery, and outcomes assessments can drive and enhance professional and clinical development of athletic training students. Educational reform and emerging research on educational strategies in health professions should be used to assist in the development of professional programs. Sustainability of these programs will rely on development of strong curriculums, expansion of experiential education, support for program faculty and preceptors, and strong interprofessional relationships to support recruitment and retention of diverse athletic training students, faculty, and staff.***

1. **Clinical education delivery and their effectiveness on clinical skill development should be rigorously examined with model practices identified and disseminated.**

ATs need to continue investigating the efficacy and quality of face-to-face clinical instruction, simulations, telehealth, and other clinical experiences. Most important, the profession needs to continue to evaluate the most appropriate way to determine clinical preparedness. Athletic training education may benefit from more clear and consistent terminology related to clinical education, particularly as these experiences relate to peer health professions.3

The role of the preceptor in clinical education needs to be examined and fostered across all levels of educational programming. Preceptors’ education on the value of professional mentoring and role modeling, clinical decision-making, clinical reasoning, and critical thinking in athletic training students using innovative models of clinical education practice such as adaptive expertise education is priority. Athletic training programs need to consider offering students diverse clinical education experiences that represent a range of practice settings where ATs practice (based on the most current *Practice Analysis)4* and offer diverse clinical education experiences that reflect areas of specialty practice or emerging practice settings within the profession. This will require investigation and integration of innovative clinical education and outcome assessment models.

1. **The sustainability of athletic training programs including recruitment and retention of qualified athletic training students should be examined, and strategies for increasing both should be developed.**

The transition to the professional master’s degree has altered the landscape of student recruitment and retention and created programmatic sustainability concerns.5 Data presented in the CAATE Analytic Report6 demonstrates a decline in qualified applicants to professional master’s degree programs in certain regions of the country which has been confounded in no doubt by the global pandemic. Higher education is also facing a general decline in enrollment.7-9 The enrollment trends that may be realized over the next few years could have a profound impact on faculty positions, preceptor roles, student enrollment and program sustainability. The professional master’s admissions and retention processes of qualified athletic training students are essential. Further, recruitment and retention strategies of diverse professionals needs to be investigated as this issue transcends all levels of the profession.

1. **Resources for faculty preparation and development should continue to be expanded upon to ensure faculty and programmatic affiliates such as preceptors are supported in their roles.**

The shift of the professional degree, along with the emergence of the Doctor of Athletic Training and other post-professional options, has provided new pathways for ATs to align with athletic training educational programs. Administrative leadership skills, teaching development, and research infrastructure are areas of consideration to enhance preparation of faculty and preceptors. Pathways for personnel development, differentiated faculty roles, and alignment between preparation and responsibilities necessitate further investigation. This includes the inter-relationships between faculty members, training opportunities and collaboration with the CAATE to expand the understanding and implementation of contemporary expertise.1

1. **Relationships with external organizations and professions should be fostered to facilitate student and personnel recruitment, retention, and inter-professional education and practice.**

The professional degree change, recent changes to professional education curricular content standards,1 and a professional shift to specialization5 have led to and expanded progression of the skill set of ATs. The on-going evolution of athletic training education requires purposeful outreach to stakeholders, including athletic training students, practicing clinicians, employers, administrators, and other healthcare professions to adapt to these changes. Engagement of academic administrators to promote the profession and educate these administrators about issues in professional education and the profession is essential.10 Likewise, strengthening relationships with external health professions organizations may aid in the recruitment and retention of qualified athletic training students to sustain program viability.

1. **Athletic training students and faculty should create and engage in opportunities to have meaningful interactions with other healthcare providers and support personnel, including physicians, therapists, dietitians, psychologists, strength and conditioning personnel, case managers, administrators, etc. during clinical education experiences. These interactions will further educate other professions regarding the unique skill set and contributions of ATs to the healthcare system.**

These healthcare provider interactions may include, but are not limited to, inter-professional clinical and soft skills development, marketing initiatives, educational resources, organizational collaborations, consortia, inter-professional continuing education, and advisory group engagement. Meaningful integration of inter-professional engagement and collaboration across the profession is essential to athletic training’s presence in the healthcare arena.

1. **There should be purposeful development of professional, inter-personal skills in athletic training students and athletic training professionals that continues to be supported throughout one’s professional career.**

As a fundamental tenet of human interaction, shared professional values and inter-personal skills are essential. As an inter-professional healthcare provider, ATs are challenged to engage and communicate effectively to promote the profession and provide quality health care services.11, 12 Professionalism begins with formal education13 and evolves across one’s career.

Professionalism embraces a wide range of skills including, but not limited to, patience, accountability, reliability, honesty, self-control, and respectful demeanor towards others.Professional, inter-personal skills can be purposefully integrated throughout the athletic training program and be purposefully integrated into clinical education with programming and formative and summative evaluation.11, 14 Practicing professionals are also accountable for abiding by and demonstrating these behaviors which can be evaluated in formative and summative performance evaluations that integrate the NATA’s newly articulated shared professional values.13, 15

1. **The NATA should continue to support the preceptor development process and provide resources to athletic training programs to enhance clinical education experiences.**

Preceptors are an essential component of athletic training programs and their professional development and retention is key. Preceptor selection and training are critical for the advancement of athletic training education and needs to be anchored in contemporary evidence in clinical practice and pedagogy.16 This training can incorporate the scholarship of teaching and learning to ensure best practices are continually updated and employed for both patient care and for clinical teaching. Formal and informal continuing education for preceptors to acquire and master new clinical skills is needed. Continuing education can be facilitated by the NATA Knowledge Initiatives program, in addition to frequent and ongoing communication and feedback between the program, preceptor, and organizational leadership.

1. **Model practices for clinical education experiences, including facilities, learning opportunities, and onboarding to clinical education should be developed and disseminated.**

Athletic training programs, including administrators and organizational leaders, may benefit from rich resources regarding the selection and evaluation of clinical sites.17 Coordinators of clinical education, preceptors, and other administrators may find resources such as standardized onboarding guidelines to be helpful. Lastly, with the increasing prevalence of immersive and distance clinical experiences, athletic training programs and the profession may benefit from scientific investigation of potential centralized systems for clinical immersion and distance clinical education, including housing and transportation considerations.

**Transition to Practice**

***Educational reform and its overarching impact on athletic training educators and clinicians continues to be an area of focus for the profession. The professional masters’ degree transition continues to create challenges for professional and clinical education as new requirements and standards emerge. Although anchored in the formal education processes, ATs continue to feel this impact throughout their career. The importance of facilitating a dynamic, yet adaptive expertise environment for all professionals in this evolving landscape will facilitate transition to practice.***

1. **ATs across all settings can facilitate transition to practice through various socialization mechanisms including anticipatory and organizational socialization strategies to promote role evolution and stability.**

Transition to practice continues to challenge the profession and is confounded by many factors. The transition from student to autonomous clinician may be facilitated or hindered by personal characteristics, knowledge of athletic training, and practical experiences related to the daily responsibilities of ATs.11, 18, 19 Although newly credentialed ATs are excited to integrate into the profession, they report a general lack of confidence in autonomous practice.15, 20 Guided by standards, professional programs continue to develop challenging clinical experiences, yet the transition to practice dilemma remains.

Transition to practice will require the collaborative attention of all entities associated with athletic training education. Professional programs may consider creating innovative, yet compliant clinical experiences to supplement academic training. Didactic and clinical education focused efforts to bridge the perceived gaps in this transition are essential.21 Anticipatory and organizational socialization efforts will need to be structured to create a fluid, dynamic transition from student to professional, as well as professionals within the various phases of their career.11, 18, 21, 22 To sustain the profession, a collaborative change initiative of all in the profession – educators, preceptors, administrators, and practicing ATs is essential to promote broad skills training, equitable pay initiatives, interpersonal development, work-life balance, and successful mentoring.12, 17, 23-25 This involves extending beyond the content knowledge to address the adaptive culture in which ATs exist to properly socialize and retain adaptive, dynamic professionals who thrive in changing environments.

1. **Transition to practice through rigorous on-boarding and sustained mentoring for ATs in all settings should be further facilitated by employers with support from the NATA.**

Onboarding is utilized across healthcare professions as a strategy to facilitate transition to practice and retention.26 Each employment setting has unique organizational components. However, consistent practices for ATs across settings exist; thus, enabling the potential for the development of an integrated transition program.

Employers may consider providing a rich orientation specific to role, job description, and setting and use the *New Athletic Trainer Employee Orientation Checklist27*o assist with orientation.20-22 Newly hired ATs can be supported by using peer mentoring and formal, regular evaluations by supervisors to track progress and provide new hires a framework for determining success.18 Employers can provide opportunities for continuing education and onboarding beyond web-based resources. Journal club, in-services, workshops, and other similar education opportunities can assist with transition to practice and continuing education. The NATA can be instrumental in providing resources to explore the development of transition to practice programs (e.g., nursing) and expand the transition to practice toolkit to include resources for ATs and employers. These resources can be marketed widely to educate administrators and employers of the role of the AT.

 **Advanced Clinical Practice**

***Professional development and continuing education are essential for all healthcare professionals. ATs need innovative and effective professional development as they strive to maintain clinical capability in a rapidly changing healthcare field with expanding clinical skills to fill emerging employment settings. Although the emergence of new settings and skills is encouraging for the profession, rigorous, integrated professional development and innovative continuing education opportunities are needed throughout the profession.***

***The profession of athletic training has embarked upon advanced track training to create clinical specialists. With the domains of athletic training being broad in scope, the role of clinical specialization is emerging as a necessity to further define expertise within the healthcare professions. Athletic training needs to continue to pursue advanced training programs such as clinical specialty programs and educate the public regarding the role/impact of these specialty training certificates. ATs are working in highly specific employment settings with more emerging. Specialty certificates will allow ATs to demonstrate expertise in a specific domain of athletic training to advance employment opportunities, promote research initiatives, and ultimately, provide increased credibility to the skill sets of the AT.***

1. **The NATA should continue collaborating with relevant entities regarding the pathways, language, and processes surrounding the development of clinical specialists in the profession.**

Clear, consistent messaging is needed relative to the development of clinical specialties and residencies in athletic training. Specifically, expectations and standardized language need be set among all stakeholders regarding educational pathways in athletic training and the impact they will have on employment, salary, and practice advancement. Development and implementation of clinical specialties will need consistent, coordinated efforts. The NATA can work collaboratively to create and/or endorse innovative models and/or frameworks for establishing the educational development of ATs across their career, including alternative continuing education pathways for unique employment settings while preserving the integrity of the role of certification and within the scope of practice within state statutes. A rich, purposeful communication strategy including all stakeholders will be necessary to launch and sustain these educational pathways. *The Athletic Training Milestones28*and/or other processes could be evaluated and/or considered as a potential framework for the above recommendation.

1. **Efforts should be made to further educate and empower practicing clinicians to integrate practice-based research into their clinical practice.**

A significant gap remains in the integration of practice-based research in clinical practice.29 Although a recommendation in the Future DirectionsR document stated: “Significant effort should be expended to educate practitioners regarding the fundamentals of evidence-based practice and the use of outcome measures in their practice,” this continues to be a pressing need within the athletic training profession. Several initiatives including the Athletic Training Research AgendaR have identified the need for more practice-based research in the profession, and the recent initiatives have focused on implementation and evaluation of evidence-based practice. However, workplace constraints, role strain and other factors continue to impact the full integration of practice-based research thereby affecting students, patients, practitioners, and the profession. The NATA can continue to address this need through initiatives that facilitate evidence-based practice and practice-based research through an efficient and effective platform for all. Continued development and integration of Critically Appraised Topics (CATs)30 could be an effective strategy for implementation of practice-based research in a condensed, practical format.

**Advanced Practice Leadership**

***Athletic training has historically had rich leaders who advanced the profession. However, leadership is a dynamic role that is particularly relevant in times of change. Athletic training as a profession is experiencing tremendous change – professional and post-professional education, specialty training, employment settings, inter-professional healthcare, and many other factors. ATs across the span of their career need to engage in strong professional leadership and pursue opportunities to promote the profession for viability. As young professionals emerge from their academic programs, they will need a skill set to lead in a challenging healthcare landscape while advocating for the role of the AT in a range of employment settings. The development and management of critical processes such as systems based practice, quality improvement, measuring the effectiveness of athletic training practice, and enhancing patient safety should be championed by our advanced practice leaders. Established professionals will need strategies and resources for practice advancement to ensure longevity and retention within the profession.***

1. **Available and emerging pathways for the development of advanced practice leadership should be communicated to athletic training students and practicing clinicians with appropriate resources developed to support these pathways.**

The NATA can collaborate to identify coordinated mechanisms for developing advanced practice leadership, educators’ academies, and micro-certificates and facilitate communication of these pathways to students, faculty, administrators and practicing clinicians. The NATA can provide mechanisms for supporting ATs in all stages of their careers in the pursuit of advanced practice leadership through structured programming, professional development resources, and recognized certification/credentialing opportunities. Educational initiatives to promote these pathways will be necessary to establish credibility and impact of these additional leadership skills.

**Stewards of the Profession**

***The role of advocacy and stewardship to the profession should be promoted as a professional responsibility at all stages of one’s career. As a dynamic, evolving profession, the role of service and research to continue to shape the future of this profession needs to be strongly in-grained through practice and modeling. Our stewards must identify and disseminate new knowledge specific to and defining of athletic training practice to ensure the longevity and growth of the profession. As a profession, we are stronger together and advocacy efforts require coordinated, consistent efforts of all.***

1. **The role of research in the profession, including the development and support of researchers at all stages of their career, should be evaluated, articulated and promoted.**

The NATA can work collaboratively to continue its efforts to better inform the practice and education of athletic training by identifying and supporting key areas of research as they relate to improving patient outcomes. The restructuring of professional and post-professional education has shifted the pathways for developing researchers within the profession. The NATA can consider conducting a detailed analysis specifically focused on professional, doctoral, and post professional education in athletic training to ensure there are adequate mechanisms for preparing researchers to design, implement, analyze, and disseminate meaningful educational and clinical research to advance the profession.

1. **All members of the profession should collaborate to better develop, support, and recognize stewards of the discipline. Initiatives including, but not limited to, student engagement, professional advocacy, research promotion, innovative educational models, inter-professional education and practice, legislative efforts and public relations efforts should be continually evaluated and prioritized.**

ATs across their career have opportunities to contribute to the advancement of the profession. Strategic review of the composition and structure of all committees can be performed to ensure comprehensive address of current and developing educational issues. Consideration for reorganization following strategic review will allow for inclusion of emerging professional entities such as international education.

Further, emphasis can be placed on the active, purposeful engagement of multiple stakeholders in key initiatives for the promotion of the profession. Continued strategic analysis and planning relative to professional initiatives amongst key members associated with athletic training education will promote consistent, united messaging to all stakeholders. Engagement of ATs in these efforts is essential to develop ownership and promote confidence. A wide range of professionals, students, administrators, and other stakeholders can be recruited to embrace multiple perspectives on issues considered key by the Strategic Plan. Meaningful contributions to strategic initiatives motivate stakeholders and develop trust, confidence, and collaboration throughout the organization and beyond.

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