

The Prioritized Research Agenda for the Athletic Training Profession: A Report From the Strategic Alliance Research Agenda Task Force

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Context: Athletic trainers (ATs) must be equipped with evidence to inform their clinical practice. A systematic, inclusive, and continuous process for exploring research priorities is vital to the success of ATs and, more importantly, their patients' positive outcomes.

Objective: To identify research priorities and unify research with clinical practice to improve patient care and advance the profession.

Design: Mixed-methods study.

Setting: Focus groups and a Web-based survey.

Patients or Other Participants: A total of 87 ATs (43 men [49.4%], 44 women [50.6%]; age = 40 ± 11 years; experience = 18 ± 11 years) participated in focus groups. Of the 49 332 e-mails sent, 580 were undeliverable, 5131 ATs started the survey (access rate = 10.5%), and 4514 agreed to participate (response rate = 9.3%).

Main Outcome Measure(s): Our study consisted of 6 focus-group sessions, a content-expert review, and a Web-based survey. Themes from the focus groups were used to develop the research priorities and survey instrument. We used the 25-item validated survey to determine whether the research priorities and findings of the focus groups were generalizable.

Endorsement of research priorities and recommendations was achieved when respondents indicated they agreed or strongly agreed.

Results: Respondents endorsed 5 research priorities: health care competency ($n = 4438/4493$, 98.8%), vitality of the profession ($n = 4319/4455$, 96.9%), health professions education ($n = 3966/4419$, 89.8%), health care economics ($n = 4246/4425$, 96.0%), and health information technology ($n = 3893/4438$, 87.7%). We also made the following recommendations: (1) develop funding initiatives that align with the agenda, (2) develop postdoctoral fellowships focused on clinical research, (3) facilitate collaborative relationships between clinicians and researchers, and (4) make research evidence more readily available and more applicable.

Conclusions: Using a systematic and inclusive process, we developed a prioritized research agenda for the athletic training profession. The agenda was endorsed by the leaders of each Strategic Alliance organization and adopted as the Athletic Training Research Agenda.

Key Words: research priorities, funding, clinical practice, outcomes

Key Points

- Through both qualitative and quantitative methods, we identified the research priorities of the athletic training profession as health care competency, vitality of the profession, health professions education, health care economics, and health information technology.
- Athletic trainers indicated that collaborative research resulting in clinically meaningful results should be a priority of the Strategic Alliance.
- Every member of the athletic training community is responsible for facilitating the Athletic Training Research Agenda.

In recent years, many health care professions^{1–5} have sought to establish research agendas that address the research priorities of their profession. Research evidence serves as the scientific basis for the practice of athletic training. A research agenda for the profession of athletic training can help to establish funding priorities,

guide researchers and clinicians in identifying individual research agendas, and facilitate the development of researchers in needed areas. A research agenda guided by the perceived needs of clinicians will help to address the challenges they experience in making decisions during their daily care of patients.

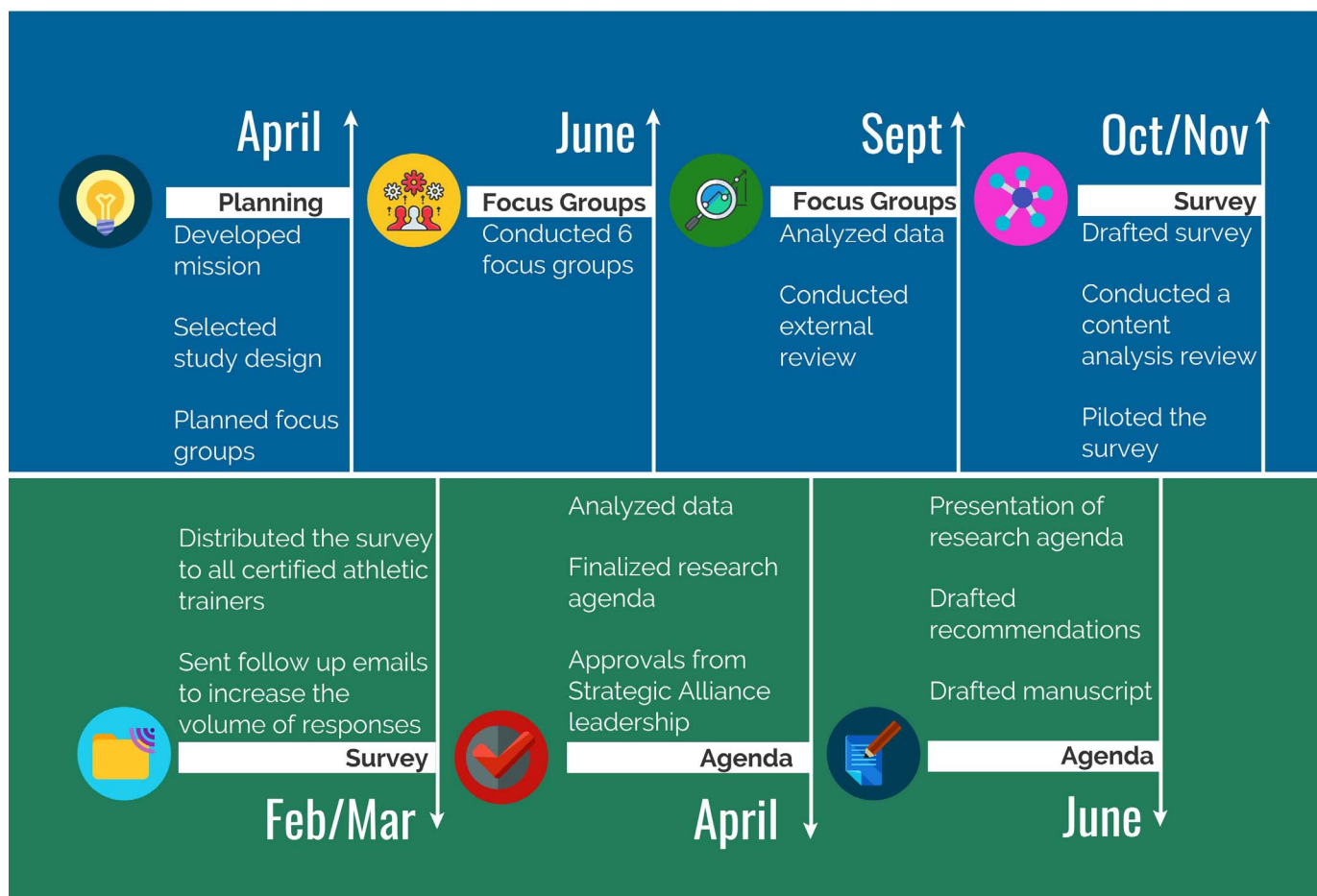


Figure 1. Timeline of activities. The timeline began in April 2017 and concluded in June 2018.

The Athletic Training Strategic Alliance includes the National Athletic Trainers' Association (NATA); the Board of Certification, Inc; the NATA Research & Education Foundation; and the Commission on Accreditation of Athletic Training Education and is committed to the athletic training profession and the delivery of quality health care to the public. In the spring of 2017, the Strategic Alliance created the Research Agenda Task Force, which was given the responsibility of "developing the athletic training research agenda, with a mission and vision for the agenda, as well as identifying the research priorities that holistically capture athletic trainer-driven research" (personal communication, R.T. Floyd, April 2017). The task force consisted of representatives from each member organization of the Strategic Alliance. During the first face-to-face meeting, in April 2017, we established a timeline (Figure 1) and determined how to create the agenda. The second face-to-face meeting occurred in April 2018, when the data from the survey were discussed, consensus was reached, and the agenda was finalized. The Athletic Training Research Agenda was then shared with and approved by the leaders of the Strategic Alliance member organizations. The purpose of the Athletic Training Research Agenda was to identify research priorities and unify research with clinical practice to improve patient care and advance the profession. In this paper, we describe the developmental process and findings

of the Strategic Alliance Research Agenda Task Force and outline the prioritized Athletic Training Research Agenda.

METHODS

In our initial meetings (which included 2 conference calls), we reviewed the research agendas of many other health care professions and evaluated the approaches used to achieve consensus on a comprehensive list of priorities.¹⁻¹² These approaches included the use of conferences or workshops to assemble experts to develop the agenda.⁶⁻¹² In some instances, groups of experts convened to establish the agenda on their own, whereas others reached out beyond their own committees but not profession wide. As some professions self-reflected on their processes, they perceived that these approaches had limitations.¹⁻¹² To achieve our goals in the most systematic and inclusive way, we selected a sequential exploratory mixed-methods approach to develop a prioritized Athletic Training Research Agenda. This approach involved qualitative data collection that directed follow-up quantitative data collection and analysis. This technique often identifies phenomena and then confirms them through generalizable means. We conducted 6 focus-group sessions (phase 1), analyzed the data to develop a survey containing content validated by a panel of content and methods experts, and then distributed it profession

Table 1. Focus-Group Questions^a

Question
1. In what patient-care situations do you feel athletic trainers do not have the best evidence to support their decisions?
2. What evidence do you think athletic trainers need to provide better patient care?
3. What are patient-care problems that athletic trainers are facing that they wish they had answers to?
4. What evidence or research data do we need to advance the athletic training profession?
5. What is your vision of athletic training practice 20 years from now?
a. What does a practicing athletic trainer look like 20 years from now?
b. What kind of evidence do you think athletic trainers will need to support their clinical practice 20 years from now?
6. If a clinician and a researcher were to collaborate, what clinical question would you want them to investigate? What do clinicians need to know to drive decision-making in their practice?
7. What are the research challenges and barriers to making the best clinical decisions for patients?

^a Instrument is reproduced in its original form.

wide (phase 2). This project was approved by the Institutional Review Board at Indiana State University.

Phase 1: Qualitative Component

Recruitment and Participants. We conducted 6 focus groups at the 68th NATA Clinical Symposia & AT Expo held in Houston, Texas. Due to the room's maximum capacity, the feasibility of audio for transcription, and our goal of manageable group sizes, each group was limited to 15 members. To increase our reach and the likelihood of participation, the NATA marketing team distributed our recruitment announcement and link to volunteers via the "Range of Motion" newsletter to all registered attendees 5 and 6 weeks before the conference. The data collected were full name, e-mail address, phone number, preferred mode of contact, age, years certified, gender, ethnicity, session availability, employment setting, and current primary role(s).

A total of 140 respondents volunteered for the focus groups, 90 were scheduled, and 87 (men = 43 [49.4%], women = 44 [50.6%]; age = 40 ± 11 years; experience = 18 ± 11 years; college or university setting = 42 [48.3%], educator/researcher = 15 [17.2%], secondary school setting = 14 [16.1%], military setting = 5 [5.7%], physician practice = 4 [4.6%], hospital setting = 3 [3.4%], health care administration = 2 [2.3%], professional sports = 2 [2.3%]) participants engaged in the focus groups.

Instrumentation. During our first Strategic Alliance Research Agenda Task Force meeting, we developed the focus-group questions. The questions were piloted with athletic trainers (ATs) who were not planning to attend the 68th Clinical Symposia & AT Expo and were not available to be focus-group participants. Minor changes were made to the questions based on the pilot study. The focus-group questions were aimed at understanding aspects of clinical practice that lacked sufficient evidence to guide the selection and implementation of specific clinical procedures (Table 1).

Procedures. We assigned each participant to 1 of the 6 sessions based on availability and balanced by years certified, gender, ethnicity, employment setting, and current

primary role(s) to create heterogeneous focus groups. Those who had less than 12 years of experience as a certified AT were classified as *young professionals*. Each group was originally allocated a minimum of 7 young professionals, 7 women, 2 individuals of minority ethnicities, and a mix of individuals in different employment settings and roles. Three weeks before the first scheduled focus group, we contacted 90 selected participants via their preferred mode of communication to inform them of the date, time, and location of their assigned session. Between the initial notice and the focus-group sessions, 1 Strategic Alliance Research Agenda Task Force member fielded responses requesting session changes and cancellations due to scheduling conflicts. Each time a participant was removed from a group, he or she was replaced with another volunteer matched on similar criteria.

Reminder notices were sent to each participant at 1 week and 1 day before the assigned focus-group session, at which time confirmation was requested. Best efforts were made to maintain equal numbers in each group while being cognizant of demographic criteria. After all changes had been made, each focus group had 13 to 17 participants (total n = 87). Groups were assigned 29% to 69% young professionals, 38% to 57% women, and 1 to 3 individuals of ethnic minorities.

Data Analysis. All focus-group sessions were transcribed verbatim by an outside transcription company. Four members of the task force with backgrounds in qualitative research read all of the transcripts. Each member used an inductive approach to independently code the transcripts. Inductive coding allows phenomena to emerge from the raw data. We met to discuss our themes and achieved consensus with a 3 out of 4 majority; these themes helped us to create the survey. Our themes and the transcripts were shared for external review with a peer who was experienced in qualitative research and did not participate in the focus groups. No changes were made to the themes. Trustworthiness of the qualitative focus-group data was achieved through researcher triangulation and peer review.

Phase 2: Quantitative Component

Participants. A total of 49 332 e-mails were sent to all certified ATs (from an e-mail list provided by the Board of Certification) by the primary investigator (L.E.E.) on behalf of the Strategic Alliance Research Agenda Task Force. Of these, 580 e-mails were undeliverable; 5131 (10.5%) ATs started the survey, 4514 (9.3%) agreed to participate, and 3910 (86.6%) completed the questionnaire. Among those ATs who chose to participate and indicated their primary role, 4053 (89.8%) cited AT (with 13 ± 10 years of experience); 216 (4.8%), physical therapist; 11 (0.2%), physician; and 198 (4.4%), other. A majority of respondents identified as female (2482/4514, 55.05%), 1961 (43.4%) as male, and 5 as transgender (0.1%); 25 (0.6%) did not indicate their gender. Approximately two-thirds of respondents commented that they read athletic training journals (eg, *Journal of Athletic Training*, *American Journal of Sports Medicine*) at least occasionally (n = 1945, 43.1%), a moderate amount (n = 1022, 22.6%), or a great deal (n = 422, 9.3%), with a smaller percentage stating rarely (n = 941, 20.8%) or never (n = 140, 3.1%).

Table 2. Initial Research Priorities

Initial Research Priorities	
Health care competency	
	Prevention of musculoskeletal injuries
	Intervention effectiveness (eg, rehabilitation, modalities, pharmacology)
	Behavioral (mental health) recognition and referral
	Athletic training as a form of public health
Vitality of the profession	
	Effect of a medical health care structure in traditional athletic training settings (ie, ATs aligned with other health care providers)
	Effect of interprofessional practice
	Interventions that improve work-family conflict for ATs
	Improving retention of ATs
	Reputation of the profession
Health professions education	
	Developing, measuring, and maintaining competence
	Developing and measuring clinical expertise
Health care economics	
	Value of the AT to organizations
	Return on investment or cost savings associated with hiring an AT
	Minimizing health care costs for the physically active
	Appropriate patient : practitioner ratios to ensure safe and high-quality patient care

Abbreviation: AT, athletic trainer.

Instrumentation. We used the results from the focus groups to develop the survey instrument. The focus-group themes were clinically meaningful research, medical documentation, health care competency, clinical decision making, professional development, and professional health.

The survey contained 4 demographic items: primary health care profession, years of work experience in the primary health profession, gender, and frequency of reading journals related to the athletic training profession (5-point Likert scale: 1 = *never*, 5 = *a great deal*). To increase the likelihood of response and promote anonymity, the task force decided not to ask additional demographic questions. We used 5 items to determine the level of agreement (4-point Likert scale: 1 = *strongly disagree*, 4 = *strongly agree*) with the initial research priorities (Table 2). One item (rank order) was used to determine research priorities, whereby the participants ranked the priorities in order of most to least important (with the option to not select a priority). We invited participants to share their priorities in an open-ended item if they felt the research priorities did not represent their thoughts. We used 7 items (matrices and single select) to determine the level of agreement (4-point Likert scale: 1 = *strongly disagree*, 4 = *strongly agree*) with the research initiatives that might benefit the athletic training profession. One item (matrix) asked participants to rate their level of agreement (4-point Likert scale: 1 = *strongly disagree*, 4 = *strongly agree*) as to whether specific health care initiatives

were among their highest-priority clinical care concerns. Four items (matrices and single select) were used to determine the level of agreement (4-point Likert scale: 1 = *strongly disagree*, 4 = *strongly agree*) regarding barriers to research and research collaborations in the athletic training profession. We used 1 item (matrix) to determine the level of agreement (4-point Likert scale: 1 = *strongly disagree*, 4 = *strongly agree*) that ATs had sufficient evidence to support return-to-play, life, and work decisions. An additional open-ended item was available for participants to share any further thoughts on the research priorities. The instrument consisted of 25 total items.

We prepared a content analysis rubric that was reviewed by a panel of content experts. The rubric allowed each expert to indicate whether each item in the survey needed revision or was sufficient as written. When an item needed revision, we asked the panelist to provide suggestions for revision. We combined the feedback from the experts and then refined the tool to reflect their recommendations. Major changes were made to the survey based on their feedback.

We then conducted a pilot study of the tool with recruits who volunteered for the focus groups but were not selected. Their responses (n = 24/52, response rate = 46.2%, completion rate = 100%) indicated that the survey had strong internal consistency (instrument reliability), both for the specific proposed research agenda areas (Cronbach α = 0.839) and the instrument as a whole (Cronbach α = 0.790).

Procedures. We sent an initial e-mail on Tuesday, January 30, 2017, at 12:00 PM EST to potential participants and, on subsequent Tuesdays between 10:00 AM and 12:00 PM EST, sent 5 weekly reminders to those who had not yet responded. Data collection remained open for 6 weeks, from January 30 to March 16, 2017. The survey took approximately 10 minutes to complete, and all data were stored in Qualtrics (Provo, UT).

Data Analysis. We used statistics of central tendency, specifically frequency counts, and percentages to indicate the strength of agreement with each item. Percentages were calculated based on the number of respondents who provided a specific response out of the total number of responses for each item. Endorsement was achieved when respondents indicated that they agreed or strongly agreed with an item. Participants were informed that they could choose not to answer any item or discontinue responding at their discretion.

RESULTS

More than 87% (n = 3811/4404) of respondents agreed or strongly agreed with the 5 proposed research agenda priorities. The research priorities were ranked from most important to least important (n = number of respondents who ranked the priority first): health care competence (n = 2129), vitality of the profession (n = 892), health

Table 3. Endorsements of Proposed Research Agenda Areas

Research Priority	n	Level of Agreement, n (%)			
		Strongly Disagree	Disagree	Agree	Strongly Agree
Health care competency	4404	29 (0.65)	26 (0.59)	1506 (34.19)	2843 (64.55)
Vitality of the profession	4367	15 (0.34)	116 (2.66)	1867 (42.75)	2369 (54.25)
Health professions education	4332	25 (0.58)	422 (9.74)	2464 (56.88)	1421 (32.80)
Health care economics	4338	14 (0.32)	161 (3.71)	1753 (40.41)	2410 (55.56)
Health information technology	4351	20 (0.46)	520 (11.95)	2650 (60.91)	1161 (26.68)

Table 4. Endorsement of Clinically Meaningful Research That Would Benefit the Athletic Training Profession

Clinically Meaningful Research	n	Level of Agreement, n (%)			
		Strongly Disagree	Disagree	Agree	Strongly Agree
Collaborative research between researchers and clinicians	4150	55 (1.33)	47 (1.13)	1832 (44.14)	2216 (53.40)
Clinicians who engage in clinical research	4147	39 (0.94)	196 (4.73)	2279 (54.96)	1633 (39.37)
Clinical leaders who can interpret data and implement best practices	4148	27 (0.65)	151 (3.64)	2111 (50.89)	1859 (44.82)
Researchers who produce clinically relevant and meaningful data	4152	36 (0.87)	72 (1.73)	1631 (39.28)	2413 (58.12)
Postdoctoral fellowships that train researchers to engage in clinically relevant research	4142	78 (1.89)	546 (13.18)	2277 (54.97)	1241 (29.96)

professions education (n = 477), health care economics (n = 358), and health information technology (n = 85). The level of agreement by research agenda area is illustrated in Table 3.

Most respondents agreed or strongly agreed that clinically meaningful research would benefit the profession. Specifically, they agreed or strongly agreed that the profession would benefit from collaborative research between researchers and clinicians (97.5%), clinicians who engage in clinical research (94.3%), and researchers who produce clinically relevant data (97.4%; Table 4). When asked to elaborate on clinically meaningful research designs, most respondents strongly agreed or agreed that longitudinal research designs (86.1%), point-of-care research (97.7%), context-specific (90.9%), and population-specific studies would benefit the profession (91.4%; Table 5).

The majority of ATs strongly agreed or agreed that clinical prediction rules (86.9%) and diagnostic algorithms relevant to physically active patients (82.2%) would benefit the profession (Table 6). In addition, most ATs strongly agreed or agreed that sufficient evidence was currently lacking to support clinical care decisions related to reducing the risks of musculoskeletal injuries (86.9%), selecting and applying therapeutic interventions and exercises (86.7%), behavioral health management (90.2%), and group injury-prevention programs (86.2%; Table 7). When respondents were asked whether sufficient evidence existed to support return-to-play, return-to-life, or return-to-work decisions, the majority strongly agreed or agreed that evidence existed to support these decisions (Table 8).

Participants strongly agreed or agreed that access to databases (94.1%) and research that was easy to read (95.6%) would be a benefit to the profession (Table 9). Although more than half of respondents strongly agreed or

agreed that the willingness of either party (clinician or researcher) to engage in a collaborative relationship was a barrier, a noteworthy percentage disagreed that this was a barrier (Table 10). However, the majority (89.0%) did agree that time was a barrier to collaborative research between clinicians and researchers. Finally, most respondents strongly agreed or agreed that the profession would benefit from a standard documentation system to improve our ability to analyze large data sets at the point of care (85.9%; Table 11).

The task force met again in April of 2018 to review the survey results and interpret the findings, draw conclusions based on those findings, provide editorial revisions to the final research priorities, and develop implementation recommendations. The final research agenda was then shared with and approved by the leaders of the Strategic Alliance member organizations (Figure 2).

RECOMMENDATIONS

Recognized by the American Medical Association, US Health Resources Services Administration, and US Department of Health and Human Services,¹³ *athletic training* is a health care profession that focuses on the prevention, examination, diagnosis, treatment, and rehabilitation of emergent, acute, or chronic injuries or medical conditions. As such, ATs provide medical services to benefit physically active patients in response to injuries and illnesses in a variety of traditional sport and emerging settings.

The purpose of the Athletic Training Research Agenda was to identify research priorities and unify research with clinical practice to improve patient care and advance the profession. Using our sequential exploratory mixed-methods design, we convened focus groups and a panel of content and methodologic experts and surveyed ATs, who overwhelmingly endorsed the identified research priorities in athletic training. Additionally, we affirmed the charac-

Table 5. Research Characteristics That Would Benefit the Athletic Training Profession

Research Characteristic	n	Level of Agreement, n (%)			
		Strongly Disagree	Disagree	Agree	Strongly Agree
Longitudinal research that evaluates the impact of athletic training care over the patient's lifespan	4079	39 (0.96)	530 (12.99)	2146 (56.61)	1364 (33.44)
Point-of-care research that occurs using real patients, clinicians, and interventions during regular clinical practice	4076	21 (0.52)	736 (1.79)	1948 (47.79)	2034 (49.90)
Research that is context specific (eg, performing arts, military, occupational health)	4073	31 (0.76)	341 (8.37)	2304 (56.57)	1397 (34.30)
Research that is population specific (eg, pediatric patients, persons with disabilities)	4074	37 (0.91)	315 (7.73)	2212 (54.30)	1510 (37.06)

Table 6. Clinical Decision-Making Tools That Would Benefit the Athletic Training Profession

Clinical Decision-Making Tool	n	Level of Agreement, n (%)			
		Strongly Disagree	Disagree	Agree	Strongly Agree
Clinical prediction rules relevant to physically active patients	4043	44 (1.09)	484 (11.97)	2355 (58.25)	1160 (28.69)
Diagnostic algorithms relevant to physically active patients	4043	53 (1.31)	667 (16.50)	2310 (57.13)	1030 (25.06)
Examining the extent to which athletic trainers provide patient-centered care	3963	25 (0.63)	348 (8.78)	1989 (50.19)	1601 (40.40)

Table 7. Endorsement of Highest Priority Clinical Care Concerns Lacking Sufficient Evidence to Support Care Decisions

Clinical Care Concern	n	Level of Agreement, n (%)			
		Strongly Disagree	Disagree	Agree	Strongly Agree
Reducing risks for musculoskeletal injuries	3970	57 (1.44)	465 (11.71)	1564 (39.40)	1884 (47.45)
Selecting and applying therapeutic interventions (eg, modalities, manual therapy, pharmacological agents) for musculoskeletal injuries	3972	50 (1.26)	471 (11.86)	1900 (47.83)	1551 (39.05)
Selecting and applying therapeutic exercises to resolve functional deficits resulting from musculoskeletal injuries	3971	45 (1.13)	413 (10.40)	1558 (39.24)	1955 (49.23)
Recognizing, intervening, and collaborating with other health care providers when behavioral health issues arise	3976	41 (1.03)	349 (8.78)	1961 (49.32)	1625 (40.87)
Applying [injury-]prevention programs for teams or groups of individuals	3971	35 (0.88)	514 (12.95)	2115 (53.26)	1307 (32.91)

Table 8. Sufficient Level-of-Agreement Evidence to Support Return-to-Activity Decisions

Decision	n	Level of Agreement, n (%)			
		Strongly Disagree	Disagree	Agree	Strongly Agree
Return to play	3868	59 (1.53)	385 (9.95)	1461 (37.77)	1963 (50.75)
Return to life	3371	100 (2.97)	708 (21.00)	1642 (48.71)	921 (27.32)
Return to work	3575	95 (2.66)	676 (18.91)	1705 (47.69)	1099 (30.74)

Table 9. Endorsement That Readily Available Evidence Would Benefit the Athletic Training Profession

Evidence Characteristic	n	Level of Agreement, n (%)			
		Strongly Disagree	Disagree	Agree	Strongly Agree
Readily available research in databases or repositories	3695	24 (0.61)	207 (5.27)	2123 (54.08)	1572 (40.04)
Efforts by the Strategic Alliance to make evidence easier to read and use	3754	29 (0.74)	144 (3.67)	1582 (40.28)	2172 (55.31)

Table 10. Endorsements of Barriers to Developing and Using Evidence in Athletic Training

Barrier	n	Level of Agreement, n (%)			
		Strongly Disagree	Disagree	Agree	Strongly Agree
Researcher willingness to engage with clinicians is a barrier to collaborative research.	3862	115 (2.98)	1310 (33.92)	1896 (49.09)	541 (14.01)
Clinicians' willingness to engage with researchers is a barrier to collaborative research.	3862	79 (2.05)	1017 (26.33)	2071 (53.63)	695 (17.99)
Researchers without any clinical responsibilities are barriers to collaborative research.	3871	133 (3.44)	817 (21.10)	1807 (46.68)	1114 (28.78)
Time is a barrier to collaborative research between clinicians and researchers.	3878	30 (0.77)	402 (10.37)	1843 (47.52)	1603 (41.34)
Limited applicability of current outcome measures is a barrier to collaborative research between clinicians and researchers.	3820	47 (1.23)	826 (21.62)	2434 (63.72)	53 (13.43)
Lack of uniform or standard medical documentation is a barrier to collaborative research between clinicians and researchers.	3874	35 (0.90)	890 (22.97)	2112 (54.52)	837 (21.61)

Table 11. Considerations That Affect Athletic Training Research

Consideration	n	Level of Agreement, n (%)			
		Strongly Disagree	Disagree	Agree	Strongly Agree
The profession would benefit from a standard documentation system to improve our ability to analyze large data sets at the point of care.	3880	40 (1.03)	509 (13.12)	2152 (55.46)	1179 (30.39)
The regular use of validated outcome measures would improve the quality of evidence at the point of care.	3832	12 (0.31)	278 (7.25)	2619 (68.35)	923 (24.09)

teristics of research that were important to practicing ATs. Through this process and from the survey data, the task force was also able to develop recommendations for the Strategic Alliance about implementing the agenda and improving research in the profession:

- (1) Develop funding initiatives (specific grant opportunities) that align with the research agenda,
- (2) Develop postdoctoral fellowships that train researchers to engage in clinically relevant research,
- (3) Facilitate collaborative relationships between clinicians and researchers that yield clinically relevant data,
- (4) Create a location for readily available research and engage in efforts to make evidence easier to read and use, and

(5) Revisit the agenda every 5 years.

As we work to implement the Athletic Training Research Agenda, we should intentionally engage in regular evaluation to ensure that it remains relevant.

LIMITATIONS

Although we tried to attain heterogeneity in our focus-group sessions, we had substantial participant representation from the collegiate and university setting. This was likely due to the way in which collegiate and university ATs, whether they were clinicians or educators or both, were categorized by the NATA as a single group. We were unable to reclassify them as separate groups when determining inclusion. We sampled the entire target

ATHLETIC TRAINING RESEARCH AGENDA

The purpose of the athletic training research agenda is to identify research priorities and unify research with clinical practice to improve patient care and advance the profession. The inter-association task force used a mixed-methods research approach. Through focus groups, content analysis expert review, and the survey of athletic trainers, the research priorities were identified.



Figure 2. Athletic Training Research Agenda.

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population and provided opportunities for all credential holders to participate in the study, yet we still experienced a small response rate. In addition, we chose not to collect substantial identifying information from respondents to increase the likelihood of survey completion and to ensure anonymity. In doing so, we were not able to determine the representativeness of our data by setting or any other factor.

The intent of the sequential exploratory mixed-methods design is to use a qualitative method to explore phenomena and a quantitative method to confirm that data. We used a variety of techniques to eliminate bias from our methods, including an external review and data triangulation (multiple analysts and item variability).

CALL TO ACTION

Each member of the athletic training community has a personal responsibility to the Athletic Training Research Agenda. As clinicians, we ask that you consider partnering with researchers to assist in data collection at the point of care. This requires you to engage in high-quality medical documentation to enable information sharing, measuring of practice outcomes, and demonstrating your value at a local level. We ask researchers to partner with clinicians to better understand athletic training practice at the point of care and work to support clinicians through funding, when possible, for their time and efforts as collaborators. We encourage educators to create high-impact educational experiences that show students the value of collaborative clinical practice research.

REFERENCES

1. Unified Orthopedic Research Agenda. American Academy of Orthopaedic Surgeons Web site. <http://www.aaos.org/CustomTemplates/landingPage.aspx?id=27560&ssopc=1>. Accessed April 6, 2017.
2. National Research Agenda. American College of Rheumatology Web site. <http://www.rheumatology.org/Portals/0/Files/ACR-Research-Agenda-2016-2020.pdf>. Accessed April 6, 2017.
3. Occupational Therapy Research Agenda. American Occupational Therapy Association Web site. <https://www.aota.org/-/media/Corporate/Files/Practice/Researcher/AOTF-AOTA%20Occupational%20Therapy%20Research%20Agenda.ashx>. Accessed April 6, 2017.
4. Goldstein MS, Scalzitti DA, Craik RL, et al. The revised research agenda for physical therapy. *Phys Ther*. 2011;91(2):165–174.
5. Dols JD, Bullard K, Gembol L. Setting a nursing research agenda. *J Nurs Admin*. 2010;40(5):201–204.
6. Hawk C, Meeker W, Hansen D. The National Workshop to Develop the Chiropractic Research Agenda. *J Manipulative Physiol Ther*. 1997;20(3):147–149.
7. Bradley BJ. Establishing a research agenda for school nursing. *J Sch Health*. 1988;68(2):53–61.
8. Halfon N, Schuster M, Valentine W, McGlynn E. Improving the quality of healthcare for children: implementing the results of the AHSR research agenda conference. *Health Serv Res*. 1998;33(4 pt 2):955–976.
9. Vernon H. The development of a research agenda for the Canadian chiropractic profession: report of the Consortium of Canadian Chiropractic Research Centres, November 2000. *J Can Chiropr Assoc*. 2002;46(2):86–92.
10. Lawrence DJ, Meeker WC. Commentary: the National Workshop to Develop the Chiropractic Research Agenda; 10 years on, a new set of white papers. *J Manipulative Physiol Ther*. 2006;29(9):690–694.
11. Heinemann AW. State of the science of postacute rehabilitation; setting a research agenda and developing an evidence base for practice and public policy: an introduction. *Rehabil Nurs*. 2008;33(2):82–87.
12. Boninger ML, Whyte J, DeLisa J, Zafonte R, Chan L. Building a research program in physical medicine and rehabilitation. *Am J Phys Med Rehabil*. 2009;88(8):659–666.
13. What is athletic training? National Athletic Trainers' Association Web site. <https://www.nata.org/about/athletic-training>. Accessed February 20, 2019.

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