

# Professional Master's Athletic Training Students' Career Influences Part II: Short-Term and Long-Term Career Intentions

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**Context:** As athletic training education continues to evolve to a professional master's degree, understanding the career intentions of students preparing to graduate from professional master's programs is essential.

**Objective:** To examine the career intentions of second-year professional master's athletic training students and identify the factors that influence their intentions.

**Design:** Convergent mixed methods.

**Setting:** Online surveys and individual phone interviews.

**Patients or Other Participants:** A total of 80 second-year professional master's students (63 women, 13 men, 4 no response, age =  $24.63 \pm 2.29$  years) who were enrolled in the final semester of their program in spring 2019 participated in the online survey. Ten survey respondents participated in follow-up phone interviews.

**Data Collection and Analysis:** An online survey was designed and administered to answer the research questions. Semistructured phone interviews were conducted as a follow-up to the survey to gain further insight into the research questions. The data from the survey and interviews were woven together and merged to provide a comprehensive display of results. Triangulation, member checks, memos, and peer debriefing were completed for trustworthiness.

**Results:** Two higher-order themes emerged from the data: career progression and factors influencing career intentions. We identified 3 lower-order themes for career progression: short-term career plans, concerns over lack of experience, and long-term career plans. Two lower-order themes were identified for factors influencing career intentions: clinical experience and mentorship.

**Conclusions:** Second-year professional master's athletic training students have short-term and long-term career plans. Their career intentions were influenced by past clinical experiences and the mentorship received from their clinical preceptors and faculty members during their professional education. Unfortunately, many students were having difficulty obtaining positions after graduation due to a lack of professional experience. As a result, some turned to internship or residency positions to gain experience.

**Key Words:** Socialization, mentorship, career development

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# Professional Master's Athletic Training Students' Career Influences Part II: Short-Term and Long-Term Career Intentions

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## KEY POINTS

- Second-year professional master's athletic training students are experiencing difficulty obtaining positions after graduation due to a lack of professional experience. As a result, some are turning to part-time, per diem, internship, or residency positions to gain experience.
- The long-term retention rate of second-year professional master's athletic training students is not fully known. Our findings indicate that only 43.7% of our participants are not considering another career besides athletic training.
- Factors influencing career intentions include previous clinical experience and mentorship from preceptors and faculty members.
- Athletic training educators should be intentional about placing students at clinical sites that model positive working environments, healthy work habits, and employ preceptors who are willing to mentor their students.

The career intentions of athletic training students after graduation have gained a great deal of attention in athletic training education research.<sup>1-6</sup> The professional socialization experiences are considered critical factors in determining whether students want to enter the profession after graduation. For example, according to Mazerolle and Benes,<sup>7</sup> students are best socialized into the athletic training profession through diverse clinical experiences and mentorship by clinical preceptors. In professional bachelor's athletic training students, the impact of clinical preceptors on students' career intentions is well documented.<sup>1-4,7</sup> Clinical preceptors who served as mentors to students were considered foundational to the development of positive perceptions about the profession and profoundly influenced the students' career intentions after graduation.

In postprofessional athletic training students, clinical experiences played a critical role in their career intentions after graduation.<sup>5,6</sup> Positive and negative graduate assistantship experiences were shown to either drive students toward a lifetime career in athletic training or cause them to choose a different career entirely.<sup>5,6</sup> Those who had positive experiences in postprofessional graduate programs believed graduate assistantships allowed them to learn the requirements of being an athletic trainer (AT) while slowly integrating themselves into the profession.<sup>5</sup> Meanwhile, graduate assistantships that highlighted some of the common negative aspects of the profession have caused students to seek careers in fields other than athletic training.<sup>6</sup>

The preferred work settings of professional bachelor's athletic training students and postprofessional athletic training students have also garnered attention in athletic training education research.<sup>4,5</sup> Neibert et al<sup>4</sup> examined the career intentions of senior athletic training students and recent graduates from athletic training programs. They found that of those participants seeking employment, 82% were seeking a career in athletic training with college or university as the

most desired setting, followed by high-school full-time or in a clinic or outreach capacity. Mazerolle and colleagues<sup>5</sup> examined the career intentions of postprofessional athletic training students. They found that college was the most desired practice setting, followed by high school.

The career intentions of professional bachelor's and postprofessional athletic training students are well documented. However, there needs to be a new emphasis placed on the career intentions of professional master's athletic training students. In 2015, the Athletic Training Strategic Alliance announced that the athletic training professional education would transition from a bachelor's degree to a master's degree.<sup>8</sup> The "Professional Degree in Athletic Training White Paper"<sup>9</sup> listed over 10 findings as to the rationale for the transition to a master's degree. One of the reasons listed suggested that professional education at the master's level would enhance student retention and improve athletic training career placement rates among graduates. The preliminary work of the "White Paper" authors,<sup>9</sup> along with the work of Bowman et al<sup>10</sup> and Ostrowski and Marshall,<sup>11</sup> indicated that graduates from professional master's programs have over a 90% career placement rate compared with a 75% career placement rate in traditional bachelor's programs. Higher career placement rates can be viewed as a major advantage of the professional master's degree, given that the US Bureau of Labor Statistics<sup>12</sup> predicts jobs within the profession will increase by over 20% by 2026.

The data on student retention and career placement rates found by the "White Paper" authors,<sup>9</sup> Bowman et al,<sup>10</sup> and Ostrowski and Marshall<sup>11</sup> offer an optimistic outlook on the profession as it transitions to the professional master's degree. However, further exploration into the career intentions of students graduating from these programs is still necessary. Therefore, the purpose of this study was to examine the career intentions of second-year professional master's athletic training students and identify the factors that influence their intentions.

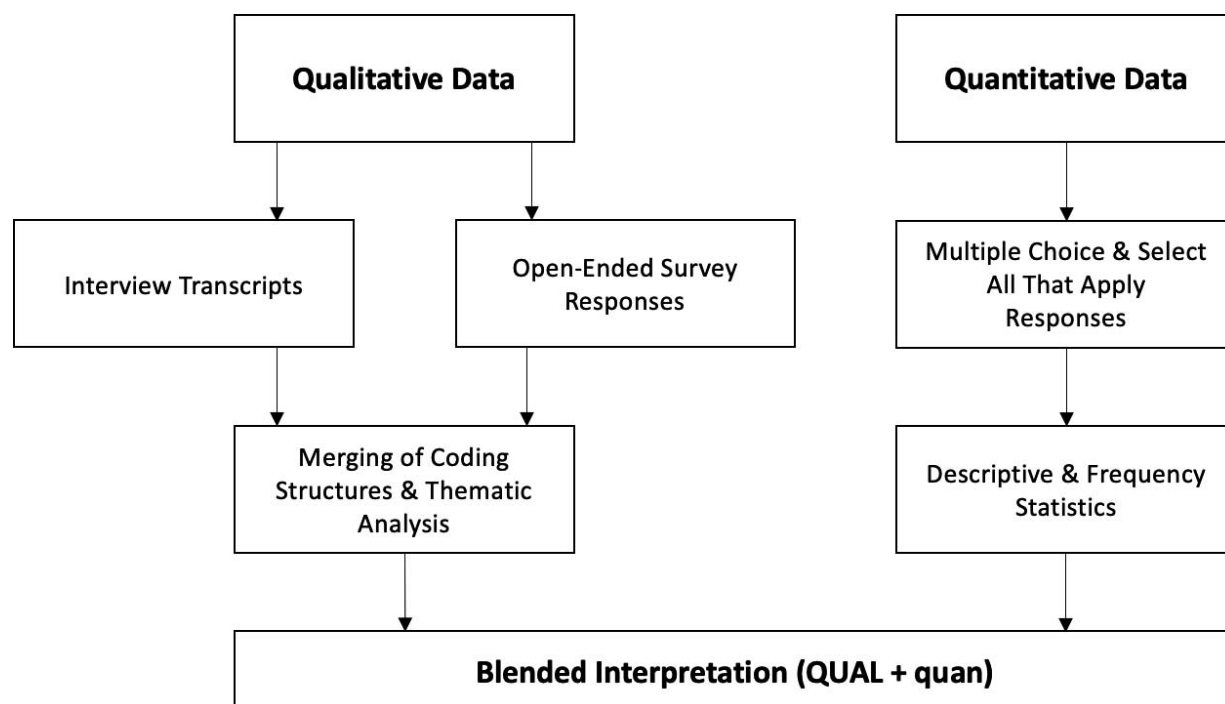
## METHODS

This study was part of a more extensive investigation examining the influential factors contributing to second-year professional master's athletic training students' perceptions of careers in athletic training and their career intentions after graduation. Part I<sup>13</sup> of this study focused the perceptions these students have toward athletic training, whereas this article focuses on their career intentions. In addition, individuals are encouraged to read Part I<sup>13</sup> because it provides an in-depth description of the recruitment strategy and instrumentation used to collect the data.

## Research Design

We selected a convergent mixed methods research design for this study (Figure),<sup>14,15</sup> collecting qualitative and quantitative

**Figure. Convergent mixed methods design.**



data concurrently and giving the qualitative component a higher priority (QUAL + quan). We blended the findings to provide a more comprehensive understanding of the career intentions of second-year professional master's athletic training students and the factors that influence their intentions. This research design allowed us to triangulate the data and cross-validate the findings, thus offsetting the limitations that exist with each methodological approach.<sup>14,15</sup> Institutional review board approval was obtained before the start of data collection. Survey respondents and interview participants provided informed consent to be included in this study.

## Participants

A total of 80 participants (63 women, 13 men, 4 no response, age =  $24.63 \pm 2.29$  years) completed the online survey. National Athletic Trainers' Association district demographic data can be viewed in Table 1. Participants were included in this study if they were in their final semester of a Commission

on Accreditation of Athletic Training Education–accredited athletic training program at the start of data collection in April 2019. A total of 10 participants (8 women, 2 men) from the initial survey respondents elected to participate in the follow-up phone interviews. Data saturation was achieved after 10 interviews. Details regarding participant recruitment can found in Part I.<sup>13</sup>

## Data Collection Procedures

We developed an online survey to answer our research questions in the larger, overall study. The survey was validated using a content validity index (CVI) tool and had an overall CVI score of 0.98 ( $3.92 \pm 0.16$ ) for relevance and an overall CVI score of 0.91 ( $3.64 \pm 0.32$ ) for clarity.

Specific details about the survey and a further explanation of its validation process are presented in Part I.<sup>13</sup> The survey was administered via Qualtrics software, version July 2019. The participants completed the survey in an average of 18.5 minutes. At the end of the survey, the participants were asked if they would be interested in providing contact information to participate in a follow-up phone interview. The contact information form was not tied to their survey results.

We developed an interview guide similar to the online survey to answer our research questions in the larger study. The interview guide was validated using a CVI tool and had an overall CVI score of 0.98 ( $3.92 \pm 0.16$ ) for relevance and an overall CVI score of 0.91 ( $3.64 \pm 0.32$ ) for clarity. Specific details about the interview guide, how it was piloted, and a further explanation of its validation are explained in Part I.<sup>13</sup> All interviews were conducted by 1 researcher and were audio-recorded using the NoNotes mobile application (<https://www.nonotes.com/>). The participants were given pseudonyms so their identities would remain confidential. On average, the interviews lasted 40 minutes. The interviews were transcribed

**Table 1. Survey Respondent Demographic Data**

NATA District	n	Percentage, %
4	18	22.5
9	12	15
3	11	13.8
10	8	10
6	8	10
2	7	8.8
8	7	8.8
5	5	6.3
1	2	2.5
7	2	2.5
Total	80	100

Abbreviation: NATA, National Athletic Trainers' Association.

by a third-party service (NoNotes) to reduce the potential influence of biases.

## Data Analysis and Trustworthiness

We used descriptive statistics, specifically frequencies and percentages, to analyze the survey data to determine the career intentions of the survey respondents. In addition, frequencies were used to identify the most desired careers within athletic training and outside of athletic training. We included open-ended survey responses in the qualitative data analysis.

We used inductive content analysis for the textual data from the open-ended survey responses and interview transcripts.<sup>16</sup> One member (R.D.N.) from the research team served as the primary coder and followed the inductive coding steps as described by Thomas<sup>16</sup>: preparation of raw data, close reading of text, creation of categories (themes), reduction of overlap and redundancy, and continued revision and refinement of category systems. The researcher read the survey responses and interview transcripts several times and coded the data accordingly.<sup>17,18</sup> Common codes from the survey responses and interviews were created and merged when appropriate.<sup>14,15</sup> After coding the data, the coding structure and common codes were discussed with another member of the research team until both were in agreement. From there, the common codes were placed into conceptual categories and emergent themes were derived.<sup>16–18</sup>

We then compared the emergent themes from the qualitative data with the descriptive statistics of the survey responses and further merged the data when the findings complemented each other or when similarities between the data were found.<sup>14</sup> As a result, the quantitative and qualitative data were woven together to provide an integration of both methodical approaches into a comprehensive display of results.<sup>15</sup>

We established trustworthiness using a variety of methods including triangulation, member-checking, memos, and peer debriefing.<sup>17,18</sup> The peer debriefing was conducted by an athletic training scholar with extensive expertise in qualitative research. The peer debriefer verified the coding strategies used along with their presentation in the results. An in-depth explanation of each method used to establish trustworthiness can be read in Part I.<sup>13</sup>

## RESULTS

The results of this study present a merged interpretation of the quantitative and qualitative findings. Two higher-order themes emerged from the survey and the interview data: (1) career progression and (2) factors influencing career intentions. Lower-order themes for career progression included (1) short-term career plans, (2) concerns over lack of experience, and (3) long-term career plans. Lower-order themes for factors influencing career intentions included (1) clinical experience and (2) mentorship. Each theme and its subthemes are discussed in the next section.

### Career Progression

**Short-Term Career Plans.** We defined *short-term career plans* as the survey respondents' and interview participants'

career intentions immediately after graduation. Frequency statistics of the employment settings participants planned to apply to after graduation are in Table 2. The top 5 settings in which students are seeking employment include (1) college athletics (60%), (2) high school athletics (47.5%), (3) orthopaedic physician's office (22.5%), (4) junior college athletics (21.3%), and (5) clinic/outreach setting (21.3%).

**Concerns Over Lack of Experience.** The interview participants expressed concern over their ability to apply for positions they desired after graduation due to their lack of professional experience. Multiple participants expressed frustration at the difficulty of obtaining positions in various settings because most positions required previous professional experience. When speaking of his desire to pursue an athletic training position in the military, Aaron said, "I know that when I was looking at all those types of jobs, they required at least 3 to 5 years of experience. I knew I couldn't initially get those positions." Denise shared that she had similar experiences when she applied for collegiate positions, saying, "I was applying to a lot of full-time positions and not getting them, which was really frustrating to me." She later said, "They want at least a year or two of experience." Kristen corroborated Denise's comments by saying, "I don't necessarily see myself working full-time right off the gate because most positions require, or prefer, a couple of years of experience."

Due to the difficulty of finding full-time positions, many participants turned to part-time or internship positions to gain professional experience. Rachael said, "When I was applying for positions, everyone was telling me to go the internship route. . . I applied everywhere, high school, college, internship . . . and then I was offered an internship position." Denise applied for an internship because she was unable to get a full-time position. She said,

*If I'm able to do an internship this year, that counts as a year of experience and most jobs require at least 2 to 4 years of experience. After an internship, hopefully I do not have to do a second year, that would be ridiculous, but hopefully I go into an assistant athletic training position and then be full time with benefits.*

Dana applied to internship positions as a backup in case she did not get a college or professional position. She said,

*I applied to a couple of internship positions . . . but I was also applying for mainly college jobs. I applied for a couple MLS [Major League Soccer] and NWSL [National Women's Soccer League] jobs that were looking for assistant athletic trainer positions, but when I heard back from them, it was a no because of my lack of experience.*

Julie is hoping to apply for a residency program in a hospital setting to gain experience to work in the industrial setting. She said,

*This spring I'm looking to apply for a residency position at a hospital working in orthopedics and neurology . . . that'll really push me forward in understanding the pathways of pain and how the body works. Hopefully it will allow me to be taken seriously [for future positions].*

**Long-Term Career Plans.** We defined *long-term career plans* as survey respondents' and interview participants' career



**Table 2. What Type of Athletic Training Positions Are You Currently Applying to or Plan to Apply to Immediately After Graduation? (Select All That Apply)**

Practice Setting	n	Percentage, % <sup>a</sup>
Collegiate sports	48	60
High school sports (full-time)	38	47.5
Physician's office (orthopaedics)	18	22.5
Junior college sports	17	21.3
High school–clinic/outreach setting	17	21.3
High school–split teaching/athletic training	12	15
Hospital setting	11	13.8
Military	11	13.8
Professional sports	10	12.5
Industrial/corporate	9	11.3
Performing arts	9	11.3
Physician's office (setting other than orthopaedics)	6	7.5
Service professions (eg, fire, police)	6	7.5
Health/fitness	4	5
Research–athletic training related	4	5
Higher education teaching within an MS-AT program	3	3.8
Junior college teaching–kinesiology or related	3	3.8
Other (write-in)	3	3.8
Chiropractic office	2	2.4
I do not plan to apply for athletic training positions after graduation	1	1.3

Abbreviations: AT, athletic trainer; MS-AT, Master of Science in athletic training.

<sup>a</sup> The total response percentage is greater than 100% due to respondents' ability to select multiple responses simultaneously.

goals and the types of employment settings in which they see themselves having a lasting engagement. Frequency statistics of the employment settings second-year professional master's athletic training students wish to work in long-term are in Table 3. The top 5 settings they most want to work in long-term were (1) college athletics (61.3%), (2) high school athletics–full time (36%), (3) professional sports (28.8%), (4)

orthopaedic physician's office (20%), and (5) the military (16.3%).

Most interview participants believed they would reach their career goals 5–10 years after graduation. It is interesting that many interview participants spoke of emerging settings as a long-term career choice. This was corroborated by survey data

**Table 3. What Type of Work Settings Do You Want to Work in Most, Long-Term, as an Athletic Trainer? (Select All That Apply)**

Practice Setting	n	Percentage, % <sup>a</sup>
Collegiate sports	49	61.3
High school sports (full time)	28	35
Professional sports	23	28.8
Physician's office (orthopaedics)	16	20
Military	13	16.3
Higher education teaching within an MS-AT program	13	16.3
High school–clinic/outreach setting	12	15
Performing arts	10	12.5
Junior college sports	8	10
Junior college teaching–kinesiology or related	8	10
High school–split teaching/athletic training	8	10
Service professions (eg, fire, police)	7	8.8
Hospital setting	7	8.8
Physician's office (setting other than orthopaedics)	6	7.5
Industrial/corporate	6	7.5
Health/fitness	5	6.3
Research–athletic training related	4	5
Chiropractic office	3	3.8
I do not plan to be employed as an AT	2	2.5
Other (write-in)	1	1.3

Abbreviations: AT, athletic trainer; MS-AT, Master of Science in athletic training.

<sup>a</sup> The total response percentage is greater than 100% due to respondents' ability to select multiple responses simultaneously.

**Table 4. What Other Careers Would You Want to Pursue Besides Athletic Training? (Select Your Top 3 Choices)**

Work Setting	n	Percentage, % <sup>a</sup>
Physician assistant (PA-C)	15	34.1
Strength and conditioning coach (CSCS)	13	29.5
Other (write-in)	12	27.3
Physical therapist (DPT)	9	20.5
K–12 education teaching	8	18.2
Physician (MD/DO)	6	13.6
Medical sales	5	11.4
Higher education teaching—not AT related	5	11.4
Personal trainer	3	6.8
Research outside of AT (eg, biomechanics, exercise physiology)	3	6.8
I do not plan to pursue a career in the health care setting	2	4.5
Health and fitness instructor	1	2.3
Registered nurse (RN)	1	2.3

Abbreviations: AT, athletic trainer; CSCS, certified strength and conditioning specialist; DPT, doctor of physical therapy; MD/DO, doctor of medicine/doctor of osteopathy; PA-C, physician assistant—certified.

<sup>a</sup> The total response percentage is greater than 100% due to respondents' ability to select multiple responses simultaneously.

that indicate the military as the fifth most selected long-term practice setting and performing arts as the eighth most selected practice setting. Aaron said, “I know my end goal at some point is to get into public safety with the police, fire department, or military and somehow be involved in those professions as an athletic trainer.” Denise’s career goals are to work in performing arts. She said, “I’d really like to work with Cirque du Soleil. They have a lot of great openings. They have amazing shows, people, and that’s honestly my dream job.” Kelsey said,

*I knew from pretty early on that I wanted to do industrial athletic training. I thought it was the closest to an outpatient physical therapy clinical and my experience of being a physical therapy aide. You get to work so autonomously, do your own clinical reasoning, and you get to treat the general population.*

When discussing why Julie wanted to enter the industrial setting, she said,

*I had an experience with my own family where my dad is a welder and my mom is a house cleaner and they’re standing and bending and reaching all day long. They were in massive amounts of pain and I thought, let me show you what I can do to help you with that. All of a sudden, they’re improving and they’re going to work happy and their quality of life is better . . . they don’t come home feeling tired, worn, and broken. So [when I started seeing] these changes is when I thought that there’s not enough people out there protecting our workplace athlete [sic], because it’s an endurance type sport . . . just small adjustments can make a difference in their life so that their everyday job isn’t their worst nightmare. I want them to be able to work pain free for the next 4 years.*

When asked if students were considering any other careers besides athletic training, 43.7% responded *no*, 28.8% responded *unsure*, and 27.5% responded *yes*. Those who selected *unsure* or *yes* were asked a follow-up question about what other careers they were most likely to pursue. Frequency statistics of other health care careers participants were considering are presented in Table 4. The top 3 careers students were interested in pursuing were (1) physician assistant (34.1%), (2) strength and conditioning coach

(29.5%), and (3) other—write-in (27.3%). Write-in responses varied from health care administration to collegiate athletics administration and service professions (eg, police and fire).

We asked our participants why they wanted to pursue various careers outside of athletic training. When asked why she was planning on pursuing a career as a physician assistant, Natalie said,

*What they’re able to do, the [freedom] they’re given, and the specialties they’re able to have. I think they make, and not to say it’s all about money, but they make a comfortable salary for what they do and unfortunately, athletic training doesn’t offer that and that played a big part in it for me.*

Kristen corroborated Natalie’s career goals by saying,

*I eventually want to work as a physician assistant in orthopedics. But having said that, I do really still love athletic training. I don’t love the hours and I’ve actually talked to a couple physician assistants who have a degree in athletic training.*

Sarah is planning to pursue a PhD with a specialization in spinal cord injuries. She had the following to say about her career goals:

*After the PhD program, I am going to apply to work at a university. I want to work as a professor and do work as a researcher . . . but yeah, that’s my ultimate goal is to find a university that’s able to fund the research I want to do, be able to teach, but also to just afford life.*

When asked if she wanted to pursue a faculty position in an athletic training program or in kinesiology, she said, “I’m definitely between the two . . . there’s a part of me that enjoys kinesiology, and rehabilitation and exercise science, but I think a piece of me will always try to be involved in athletic training.”

The participants’ main reasons for pursuing a career outside of athletic training was consistent with the survey respondents’ reason. Frequency statistics of the factors causing survey respondents to consider careers outside of athletic training are presented in Table 5. The top 5 factors were (1)

**Table 5. Why Will You Not Pursue a Lifetime Career in Athletic Training? (Select All That Apply)**

Response	n	Percentage, % <sup>a</sup>
Low salary	26	63.4
Long hours/inconsistent schedule	22	53.7
Inability to have work-life balance	16	39
Inability to have a family	12	29.3
Lack of awareness or appreciation for the profession	9	22
Stepping-stone profession (or planning to pursue another profession)	5	12.2
Negative public perception of the profession	4	9.8
Career advancement opportunities outside of the profession	3	7.3

<sup>a</sup> The total response percentage is greater than 100% due to respondents' ability to select multiple responses simultaneously.

low salary (63.4%), (2) long hours/inconsistent schedule (53.7%), (3) inability to have work-life balance (39%), (4) inability to have a family (29.3%), and (5) lack of awareness or appreciation for the profession (22%).

### Factors Influencing Career Intentions

**Clinical Experiences.** Positive and negative clinical experiences were factors that heavily influenced career intentions, according to survey respondents and interview participants. Positive clinical experiences contributed to participants wanting to pursue a career in that setting. One survey respondent said,

*I had 2 days of surgery observation and instantly was drawn to it. Even if I do not pursue an MD/DO I would like to be involved in operating procedures in some way. I think the disconnect from some of the team physicians that I observed from their athletes and the athletic trainers working under them made me want to be better than that. Athletic trainers deserve a team physician that actually cares about them and their athletes.*

Another survey respondent who would like to work in the military setting as an AT said, "Working with the ROTC/military leadership learning group on campus. They are not the traditional athletics population, but it showed me how much more a military population can benefit from the services of an AT." The interview participants shared similar experiences. Aaron's career goal is to work as an AT for the military, fire department, or police department. He described how a clinical rotation of working at a university health center shaped his professional goals, saying,

*I previously had only done a high school clinical rotation and didn't really like it and I was unsure about what I wanted to do. Because [the university health center] was a different setting, it almost felt like a regular rehab clinic where people would come in. It definitely wasn't anything similar to a university athletic training room or anything like that. It was completely different, and I really enjoyed it. It took me a little bit to adjust but I think it made me realize I should start looking at different settings that might be more clinic oriented. We got a variety of people so we had very few minors that would need parental consent, we would get a lot of university students and then elderly people as well. [I thought to myself] I think I could do this. I'm enjoying it and finding success. That turned me toward looking at those nontraditional types of settings.*

Negative clinical experiences contributed to participants not wanting to pursue a career in that specific setting. One survey respondent said, "I always thought I wanted to work college football, then I had a college football rotation. And now my goals have changed." Another survey respondent said,

*College setting—both of my college clinical rotations (one Division II, one Division I-A) turned me away from ever working in a college setting. The work-life balance was terrible, the teams were both understaffed on the sports medicine side, budgets were very low, etc.*

The interview participants shared similar experiences. When speaking about a negative experience at a high school rotation, Julie said,

*It definitely confirmed that I did not want to work in a high school. Mainly because parents, as much as they love their kids and as much as they're trying to help, can really just push back too much. I realized I needed to work with patients who can make decisions for themselves. I know that [athletic training] was where I wanted to be, but I definitely didn't belong at a high school.*

Dana shared similar feelings after a negative experience during her high school rotation by saying,

*Yeah, it made me not want to work at the high school level. I just don't have much interest to have to deal with parents when my main concern is the athlete. I would say that kind of prevented me from wanting to work at the high school setting or in a setting where I would have to deal with minors.*

**Mentorship.** Mentorship from clinical preceptors and faculty members was another influential factor contributing to career intentions amongst survey respondents and interview participants. Of survey respondents, 61% indicated that clinical preceptors were influential to their career intentions. Many survey respondents shared experiences of their preceptors mentoring them by giving them advice, "sharing past experiences," and "preparing them" for the professional world through skill development. The interview participants shared similar experiences with their preceptors. When speaking about her preceptor, Sarah said, "His confidence in me really had a positive impact on my work quality and gave me confidence in myself to apply to jobs, internships, and schools after I graduate." Shawn said the following about his high school preceptors:

*They gave me a lot of autonomy and allowed me to really grow as a clinician. I could go to them when I had questions or needed help, and they didn't just make me watch on the*



*sideline. They allowed me to actually practice [my skills on patients].*

Natalie shared her experience with her high school preceptor, saying,

*My first preceptor was the smartest man I've met . . . although the school had quite literally nothing but an ice machine in the cafeteria, he made me the most resourceful athletic trainer and clinician in general that I ever could be. I owe a lot to him.*

Rachael explained how her high school preceptor was a role model, saying:

*She was also a great example of being an athletic trainer, but still having a life outside of her profession. I feel like so many athletic trainers are like, "Nope. I'm an athletic trainer. I can't have a life." She was definitely not that way. She was married. She had a family. And she was just a great example of being a person who chose athletic training as a career. And everything about that rotation was positive. I mean, every day was fun. Even in a hard time, we just worked through them and got the job done.*

Of survey respondents, 45% indicated faculty members played an influential role in the development of their career intentions as well. Many survey respondents described experiences of faculty members mentoring them by giving them "career advice," helping them grow professionally, teaching them the foundational knowledge required to be an AT, "mentoring them" during research projects, and "sharing past experiences." The interview participants also spoke highly of their athletic training faculty members and shared stories of their interactions with them. Aaron described conversations he would have with his program director, saying:

*I had several conversations with him where we would just talk about life, about what I wanted to do outside of athletic training, what I wanted to do with my life, whether it was family, friends, location, stuff like that. Then he said the types of things that you want with life is more possible through this type of setting, so you should look more into that or this or things like that.*

Julie described how her program director helped her career intentions, saying,

*She would set up interviews with someone in the field that did what I wanted to do. I got to talk to athletic trainers in the military, and other athletic trainers who became mentors. She would help me find people at district meetings so I could go up and meet them in person . . . but I appreciate that no matter how many times I changed my mind, she was like, "Okay, this is the new game plan." She never said, "I can't believe you're changing your mind again." It was always, "Okay, here we go."*

Natalie described why her clinical education coordinator was so influential to her future career intentions by saying:

*He was able to listen to where we thought we wanted to go [career wise] and was able to put us in specific clinical settings with specific preceptors because he thought they would help us improve in a specific area the most so we could get [to our career goals]. He tried so hard to help us get to where we wanted to be, you know? The fact that he actually*

*listened to us and was able to say, "Okay, this is what we're going to do to help get you here" and "If you need anything else like help in the application process, let me know." I can't tell you how many applications I put him on as a reference and then I would talk through [the application process] with him and he was just fantastic.*

From the data presented, the clinical experiences and mentorship provided to our participants by both preceptors and faculty were critical factors that influenced their career intentions. Furthermore, these factors can be positive or negative and either drive students toward a career in athletic training or encourage them to pursue a career in a different profession entirely.

## DISCUSSION

The purpose of this study was to examine the career intentions of second-year professional master's athletic training students and identify the factors that influence their intentions. Our study suggests that students graduating from professional master's athletic training programs have short-term and long-term career plans but are concerned over lacking the professional experience that would qualify them for some employment positions. They hope to progress in their careers over the next 5–10 years to ultimately reach their career goals. Their career intentions were influenced by previous clinical experiences and mentorship from clinical preceptors and faculty members.

### Career Progression

**Short-Term Career Plans.** Our survey respondents indicated the most desired athletic training employment settings immediately after graduation were college, high school–full time, orthopaedic physician's office, junior college, and high school–clinic/outreach setting. This study was the first to examine the types of employment settings that professional master's athletic training students are seeking after graduation. Our findings suggest that second-year professional master's students are most interested in traditional athletic training employment settings after graduation. Though our interview participants intended to apply positions regardless of the type of employment (full time or part time) and job setting, they had a desire to seek immediate employment in job settings that matched their long-term career aspirations. Some participants wished to stay in specific regions, whereas others had no preference on where they lived and worked.

**Concerns Over Lack of Experience.** Many of our interview participants had concerns about their qualifications for employment due to their lack of professional experience. Our interview participants were worried about the number of full-time athletic training positions that required 3–5 years of professional experience. They hesitated to apply for these positions because they believed they were unqualified and would not be considered by employers. To our knowledge, this is a new theme that has yet to emerge in athletic training education literature and should be an area of concern for the athletic training profession because there are limited options for students who are graduating from professional master's programs to gain professional experience. Perhaps employers are still designing positions with professional bachelor's



students in mind. Unlike professional master's students, those who are graduating from professional bachelor's programs can enter a postprofessional program with a graduate assistantship to gain professional experience. As a result, professional bachelor's students who then move to a postprofessional program may be more qualified for full-time positions because they have professional experience as a graduate assistant AT in addition to a master's degree.

To gain professional experience, many interview participants were seeking part-time positions, per diem opportunities, internships, or residencies. This may explain why an orthopaedic physician's office was the third most desired employment setting and high school clinic/outreach was the fifth most desired employment setting among our survey respondents. Unfortunately, there is a limitation to our findings because we combined internships and residencies in our survey questionnaire. Internships are specifically designed for recent graduates seeking professional experience, whereas residencies are designed to create specialists within a specific area of clinical practice.<sup>19</sup> It is possible our participants did not fully understand the purpose of athletic training residencies given that they often spoke of internship and residencies together or used *internships* and *residencies* interchangeably. As a result, we could not determine which route was more desirable for professional master's athletic training students. Therefore, we suggest future researchers explore internships and residencies and their roles in career progression of professional master's athletic training students. Perhaps internships will become the de facto route to gain professional experience after graduation for professional master's athletic training students.

**Long-Term Career Plans.** Our respondents indicated that the most desired long-term athletic training employment settings were college, high school, professional sports, orthopaedic physician's office, the military, and higher education teaching in an athletic training program. Many interview participants believed they would reach their career goals 5–10 years after graduation. Our findings were similar to the findings by Neibert et al.<sup>4</sup> and Mazerolle et al.<sup>5</sup> They found that the 2 most desired employment settings by professional bachelor's and postprofessional athletic training students, respectively, were college followed by high school. Even though the professional degree requirements are changing from the bachelor's level to the master's level, it appears the most desired long-term employment settings of professional master's athletic training students are still within traditional athletic training practices.

Unique to our study was the rise of interest in the professional sports setting as a long-term employment option. Perhaps students pursuing a professional master's degree want to achieve the highest level of competitive sports more than those who pursue a professional bachelor's degree. In addition, our participants showed a strong interest in pursuing long-term employment in emerging settings such as orthopaedic physician's office, the military, and performing arts. In fact, 2 of the top 6 most-selected, long-term career choices were in emerging settings (orthopaedics physician's office and the military). Our interview participants were attracted to these types of settings because of the ability to have a more desirable work schedule and the ability to treat patient populations other than athletes. We suggest that professional

master's athletic training programs offer a variety of clinical rotations in traditional and emerging settings so students can be exposed to the multitude of practice settings within athletic training and make well-informed career decisions after graduation.

One area of concern is our survey respondents' uncertainty regarding a long-term career in athletic training. Only 43.7% of survey respondents said they were not planning to pursue another career besides athletic training. The top careers outside of athletic training according to our survey respondents were physician assistant, strength and conditioning coach, service professions (the military, fire, and police), and athletics administration. Our findings were like Neibert et al.,<sup>4</sup> who found that the top 3 careers for athletic training students outside of athletic training were physical therapist, physician assistant, and careers entirely outside of health care. According to some of our participants, working as a physician assistant is a natural career to follow athletic training because of their similar roles in orthopaedic practice. However, physician assistants have a wider range of skills and specializations, along with better salaries and work schedules, than athletic trainers, which makes it a more attractive long-term career.

In Part I,<sup>13</sup> we discussed how second-year professional master's athletic training students associate a career in athletic training with negative perceptions such as low pay, long hours and inconsistent schedules, and the inability to have work-life balance. These negative perceptions could be contributing to their hesitation to pursue a long-term career in the profession. To combat this, athletic training programs should ensure that their faculty and clinical preceptors are advocating for the positive aspects of the profession while still providing realistic expectations of a career within athletic training. In addition, athletic training programs should expose students to clinical sites that model positive working environments and healthy working habits to show that not all careers in athletic training are associated with these negative perceptions.<sup>13</sup>

## Factors Influencing Career Intentions

**Clinical Experience.** There is a strong foundation of evidence to support the importance of clinical experiences and their influence on athletic training students' perceptions of the profession,<sup>1</sup> their career intentions after graduation,<sup>2–6</sup> and their perceived preparedness to enter the workforce.<sup>7</sup> Our findings strengthen the body of research on the significance of clinical experience because we found it to be one of the key factors influencing professional master's athletic training students' career plans after graduation.

We found that positive clinical experiences either confirmed career intentions in a specific employment setting or sparked an interest in a new employment setting or career field. For example, some participants were interested in pursuing an athletic training career in a college or high school setting and their clinical rotations in those settings confirmed their career aspirations. Meanwhile, other participants discovered new career aspirations after their clinical rotations. For example, those who had wanted to pursue an athletic training career in emerging settings were often first exposed to those settings through their clinical rotations. Our findings further highlight

the need for athletic training programs to expose students to a variety of clinical rotations in traditional and emerging athletic training practice settings. Furthermore, we encourage athletic training educators to ask students their career interests at the start of their professional program to design clinical experiences that allow them to explore potential careers in their setting(s) of interest.

Our findings from Part I<sup>13</sup> and the findings of this study show the importance of choosing clinical sites that emulate the work-life balance, peer support, and positive work environments so students can properly socialize into the profession and learn about the professional roles and responsibilities of ATs. However, if clinical sites do not have the qualities listed above, it can lead to negative clinical experiences that have a detrimental effect on students' career intentions. In fact, our findings suggest that negative clinical experiences often caused our participants to avoid employment in specific settings after graduation. For example, some of our participants who had negative clinical experiences during their college football rotations did not want to pursue a career as a college AT. Sometimes, our participants' negative clinical experiences even made them question a long-term career in athletic training and led them to consider careers in other health care professions. Bowman et al<sup>6</sup> shared similar findings with postprofessional athletic training students. They found that negative clinical experiences as a graduate assistant drove students to change their career goals, and many of them pursued different careers entirely. It appears that regardless of the level of athletic training education (ie, bachelor's, master's, or postprofessional), clinical experiences have the same impact on athletic training students' career intentions after graduation. Therefore, athletic training programs should be intentional about the types of clinical experiences they provide for students and should try to provide clinical sites that provide positive clinical experiences and promote long-term retention in the profession.

**Mentorship.** The mentorship our participants received from their clinical preceptors and faculty members was another influential factor contributing to their career intentions. As previously identified in the literature, mentorship plays a foundational role in the professional socialization process of athletic training students,<sup>3,7,20,21</sup> the development of their career intentions,<sup>3,4,20,22</sup> and their preparedness to enter the profession after graduation.<sup>7</sup> It is clear that our participants and the participants in previous studies<sup>20,21</sup> were equally affected by the mentorship they received during their professional education.

When describing the mentorship they received from their clinical preceptors, our participants shared experiences of their preceptors developing their clinical skill set and preparing them for professional practice. Preceptors are critical socializing agents given that they teach athletic training students the skills required to be an AT as well as model and teach the roles and responsibilities of an AT in professional practice.<sup>3,7,20,21</sup> According to Mazerolle and Benes,<sup>7</sup> effective preceptor mentorship is defined by those who instill confidence in their students, model socializing behaviors, and prepare students to handle responsibilities of an AT in professional practice. Our participants identified similar qualities in the preceptors whom they considered to be mentors. For example, they often spoke of clinical “autono-

my” and “building confidence” when describing how they were mentored by their preceptors.

In addition, our participants viewed many of their preceptors as “role models.” According to Pitney and Ehlers,<sup>20</sup> an athletic training student identifying preceptors as role models was considered a key component of successful mentorship. Mazerolle and Benes<sup>7</sup> further defined role models as individuals who model socializing behaviors of the profession. We found evidence of preceptors acting as role models to our participants because they explained how they wanted to emulate their preceptors in their future professional practice. Those preceptors often demonstrated socializing behaviors by sharing real-life expectations of the profession while modeling healthy working habits such as work-life balance and the ability to have a family during their career. Our findings further support the previous literature<sup>20,21</sup> on the significance of mentorship in the clinical setting. Athletic training educators should identify and match students with clinical preceptors whom they believe will be best suited to mentor them. In addition, educators should provide their preceptors with the skills and knowledge necessary to succeed as educators and mentors during preceptor training.

In addition to clinical preceptors, our participants believed the mentorship they received from their athletic training faculty members was also influential to their career intentions. Our participants shared experiences of their program directors and clinical education coordinators discussing different career opportunities with them, helping them create career plans, and creating networking opportunities for them to connect with other professionals in and outside of athletic training. Whereas they also assisted in the professional socialization process of athletic training students, it appears their most significant impact was on the various ways they mentored students as they navigated potential career opportunities during their professional education. Our results are supported by Neibert et al<sup>4</sup> and Mazerolle et al,<sup>3</sup> who found that faculty support was critical for undergraduate athletic training students as they considered their career plans after graduation. Athletic training educators should continue to mentor athletic training students as they explore various career paths during their professional education and create opportunities for students to network with professionals in settings in which they are interested. Mentorship should continue postgraduation to help newly certified ATs transition to practice, build professional networks, and explore postprofessional career opportunities.

## Limitations and Future Research

Our response rate of 16.2% should be considered a small sample of the entire population of second-year professional master's athletic training students. In addition, 82% of our survey respondents were women. Therefore, future research using larger samples that better represent the gender ratio in professional master's athletic training program may lead to robust and generalizable results. To our knowledge, our study was the first to examine the career intentions of second-year professional master's athletic training students. We gained valuable insight, but more research is warranted. Future research should examine professional master's athletic training students' long-term retention rates in the athletic profession because we only provided an indirect measure of

their potential long-term retention in the profession. It may also be beneficial to explore how graduates from professional master's athletic training programs gain experience before landing their long-term position and compare it with the career paths of professional bachelor's athletic training students. Last, future research should explore how internships and residencies will affect the career paths of professional master's athletic training students moving forward.

## CONCLUSIONS

Our findings suggest that students have a desire to pursue their preferred employment settings after graduation but have difficulty obtaining positions due to a lack of professional experience. As a result, many turn to part-time and internship or residency positions to gain experience. All participants plan to reach their career goals in their preferred employment setting 5–10 years after graduation. Fewer than half of the survey respondents indicated they were pursuing a lifetime career in athletic training. The remainder were considering other careers besides athletic training due to the following negative aspects of the profession: low salary, long hours and inconsistent schedule, inability to have work-life balance, inability to have a family while working, and lack of awareness or appreciation for the profession. Previous clinical experiences positively and negatively affected their career intentions, whereas mentorship from clinical preceptors and faculty members had a profound impact on their career intentions.

## REFERENCES

1. Benes SS, Mazerolle SM. Factors influencing athletic training students' perceptions of the athletic training profession and career choice. *Athl Train Educ J*. 2014;9(3):104–112. doi:10.4085/0903104
2. Mazerolle SM, Dawson A, Lazar R. Career intentions of female athletic training students. *Int J Athl Ther Train*. 2012;17(6):19–22. doi:10.1123/ijatt.17.6.19
3. Mazerolle SM, Gavin KE, Pitney WA, Casa DJ, Burton L. Undergraduate athletic training students' influences on career decisions after graduation. *J Athl Train*. 2012;47(6):679–693. doi:10.4085/1062-6050-47.5.16
4. Neibert P, Huot C, Sexton P. Career decisions of senior athletic training students and recent graduates of accredited athletic training education programs. *Athl Train Educ J*. 2010;5(3):101–108. doi:10.4085/1947-380X-5.3.101
5. Mazerolle S, Eason CM, Clines S. Influences on graduate assistant athletic trainers' career intentions and career goals. *Int J Athl Ther Train*. 2016;21(4):34–44. doi:10.1123/ijatt.2015-0076
6. Bowman TG, Mazerolle SM, Goodman A. Career commitment of postprofessional athletic training program graduates. *J Athl Train*. 2015;50(4):426–431. doi:10.4085/1062-6050-49.3.69
7. Mazerolle SM, Benes SS. Factors influencing senior athletic training students' preparedness to enter the workforce. *Athl Train Educ J*. 2014;9(1):5–11. doi:10.4085/09015
8. Strategic Alliance degree statement. Strategic Alliance. Published May 20, 2015. Accessed January 3, 2022. <https://atstrategicalliance.org/strategic-alliance-degree-statement>
9. Professional education in athletic training: an examination of the professional degree level. National Athletic Trainers' Association. Published December 2013. Accessed January 3, 2022. [https://www.nata.org/sites/default/files/The\\_Professional\\_Degree\\_in\\_Athletic\\_Training.pdf](https://www.nata.org/sites/default/files/The_Professional_Degree_in_Athletic_Training.pdf)
10. Bowman TG, Mazerolle SM, Pitney WA, Dodge TM, Hertel J. Student-retention and career-placement rates between bachelor's and master's degree professional athletic training programs. *J Athl Train*. 2015;50(9):952–957. doi:10.4085/1062-6050-50.7.06
11. Ostrowski JL, Marshall B. Master's level professional athletic training programs: program characteristics, graduation requirements, and outcome measures. *Athl Train Educ J*. 2015;10(1):25–31. doi:10.4085/100125
12. Occupational outlook handbook. Athletic trainers. US Bureau of Labor Statistics. Accessed January 3, 2022 <https://www.bls.gov/ooh/healthcare/athletic-trainers.htm#tab-1>
13. Nokes RD, Pitney WA, Bowman TG, Nottingham S. Professional master's athletic training students' career influences part I: perceptions of athletic training. *Athl Train Educ J*. 2022;17(1):53–63. doi:10.4085/1947-380X-21-01
14. Creswell JW. *A Concise Introduction to Mixed Methods Research*. Sage Publications; 2015.
15. Curry L, Nunez-Smith M. *Mixed Methods in Health Sciences Research: A Practical Primer*. Sage Publications; 2014.
16. Thomas DR. A general inductive approach for analyzing qualitative evaluation data. *Am J Eval*. 2006;27(2):237–246. doi:10.1177/1098214005283748
17. Pitney WA, Parker J. *Qualitative Research in Physical Activity and the Health Professions*. Human Kinetics; 2009.
18. Creswell JW. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. 4th ed. Sage Publications; 2018.
19. Commission on Accreditation of Athletic Training Education. Residency & fellowship programs. July 27, 2021. Accessed January 3, 2022. <https://caate.net/residency-programs/>
20. 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.
21. Mazerolle SM, Eason CM, Nottingham S, Barrett JL. Athletic training students' perceptions of mentorship in clinical education. *Athl Train Educ J*. 2016;11(2):72–81. doi:10.4085/110272
22. Mazerolle SM, Dodge TM. National Athletic Trainers' Association-accredited postprofessional athletic training education: attractors and career intentions. *J Athl Train*. 2012;47(4):467–476. doi:10.4085/1062-6050-47.4.11