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January 2021

## Implementation and Assessment of a New Program Requirement to Promote Professional Development

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### Recommended Citation

Davlin-Pater C, Rosencrum E. Implementation and Assessment of a New Program Requirement to Promote Professional Development. *The Internet Journal of Allied Health Sciences and Practice*. 2021 Jan 06;19(1), Article 17.

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## Implementation and Assessment of a New Program Requirement to Promote Professional Development

### Abstract

**Purpose:** Requiring students to complete and record professional development type activities similar to the requirements of certified athletic trainers may help promote the values and behaviors associated with life-long learning in the evolving practice of athletic training, as well as prepare students more practically for the expectations of credential maintenance. We sought to design, implement, assess, and improve a new professional development program requirement in a professional-level athletic training program that closely mirrored the process and re-certification requirements for certified athletic trainers. **Methods:** a quasi-experimental mixed-methods approach was used. Data were collected over two consecutive years at a private university in the Midwestern United States. A convenience sample of students enrolled in a professional athletic training program participated in the study. Student-rated perception of the new professional development requirement and qualitative student perceptions were mined from various data sources. **Results:** Participants in the study reported positive, self-reported progress toward achieving program outcomes. Major benefits as identified by the participants included socialization opportunities, exposure to emerging practices and techniques, and appreciation of the process for credential maintenance. Feedback given by students was integrated into the professional development program requirement where appropriate between years one and two of the study, and changes were received well by participants. **Conclusions:** Athletic training students in the current study benefitted from participation in overt pedagogy in professional development. Establishment and cultivation of a professional development requirement may benefit athletic training programs for the best preparation of athletic trainers before they transition to practice.

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**The Internet Journal of Allied Health Sciences and Practice**

*Dedicated to allied health professional practice and education*

**Vol. 19 No. 1 ISSN 1540-580X**

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### **ABSTRACT**

**Purpose:** Requiring students to complete and record professional development type activities similar to the requirements of certified athletic trainers may help promote the values and behaviors associated with life-long learning in the evolving practice of athletic training, as well as prepare students more practically for the expectations of credential maintenance. We sought to design, implement, assess, and improve a new professional development program requirement in a professional-level athletic training program that closely mirrored the process and re-certification requirements for certified athletic trainers. **Methods:** A quasi-experimental mixed-methods approach was used. Data were collected over two consecutive years at a private university in the Midwestern United States. A convenience sample of students enrolled in a professional athletic training program participated in the study. Student-rated perception of the new professional development requirement and qualitative student perceptions were mined from various data sources. **Results:** Participants in the study reported positive, self-reported progress toward achieving program outcomes. Major benefits as identified by the participants included socialization opportunities, exposure to emerging practices and techniques, and appreciation of the process for credential maintenance. Feedback given by students was integrated into the professional development program requirement where appropriate between years one and two of the study, and changes were received well by participants. **Conclusions:** Athletic training students in the current study benefitted from participation in overt pedagogy in professional development. Establishment and cultivation of a professional development requirement may benefit athletic training programs for the best preparation of athletic trainers before they transition to practice.

**Key Words:** professional growth, student engagement, education, continuing education

## INTRODUCTION

Many professional organizations require formal continuing education for credential maintenance. These organizations recognize the necessity of on-going growth in contemporary knowledge and skill to allow better patient care and professional service.<sup>1-4</sup> Continuing education requirements encourage lifelong learning habits by requiring members to seek out and regularly engage in approved learning activities. For athletic trainers, the Board of Certification (BOC) sets the requirements for continuing education and defines the activities that meet the requirements for national certification.<sup>5</sup>

In their academic programs, athletic training students learn about the BOC and the continuing education requirements for credentialed members; this is part of the socialization process, whereby individuals learn the knowledge, skills, attitudes, behaviors, and values of the profession.<sup>6</sup> One of these values, as stated in section 3 of The National Athletic Trainers' Association (NATA) Code of Ethics is "maintaining and promoting high standards in their provision of services."<sup>7</sup> Section 3.4 of the NATA Code of Ethics goes on to state: "Members shall recognize the need for continuing education and participate in educational activities that enhance their skills and knowledge...."<sup>7</sup> Hughes shared that certified athletic trainers generally had positive feelings toward continuing professional education and saw it as "an important function in their professional livelihood."<sup>8</sup> While organizationally and individually it appears that athletic trainers support the need for continued education and lifelong learning, preparing students for the continuing education process when they enter professional practice may warrant more attention.

The transition from student to working professional can be difficult.<sup>9,10</sup> The results of an internal program assessment performed by the authors revealed that recent graduates felt underprepared in the area of continuing education requirements to maintain certification and/or licensure. Mazarolle et al found that the transition process from student to athletic trainer was facilitated by previous experience.<sup>11</sup> Although this finding was specific to clinical practice, there may be benefits to providing students with a program designed to offer experience in the exploration, selection, and documentation of continuing education efforts in a way that is similar to the expectations of credentialed professionals in the field.

Professional development, or engagement requirements, have been linked to successful outcomes for college students.<sup>12-15</sup> For example, O'Laughlin et al found that a professional development program for physical therapy students improved professional socialization by encouraging the pursuit of professional growth and involvement in multiple aspects of their chosen profession (i.e., political, administrative, and service).<sup>14</sup> This program included the creation of a professional development plan, and participation in community-based activities and professional growth opportunities. Ciarocco et al examined a modular approach to integrating professional development across an undergraduate psychology program.<sup>15</sup> The modular approach increased awareness of professional development opportunities and activities for participating students. Although the literature supports the engagement of university students in professional development activities, there is a paucity of research related to the effectiveness of a professional development program that mirrors professional continuing education requirements and processes.<sup>12-15</sup> The implementation of such a program should be carefully constructed and continually assessed for effectiveness.

We aimed to design, implement, assess, and improve a new professional development program requirement in a professional-level athletic training program. Specifically, we sought to answer the following questions: 1) did students achieve the student learning objectives (SLO's) of the professional development requirement, and 2) do the current logistics promote achievement of the SLO's? While professional development is a common requirement in athletic training curriculum, currently in the athletic training education literature, this program approach to professional development and engagement has not yet been explored and analyzed.

The professional development requirement was designed to mimic the BOC requirements with modifications to better suit students in a professional athletic training program. The investigators researched the practices of other programs, and the logistics that should be considered when developing such a requirement. The requirement called for students to locate and identify qualifying educational opportunities, seek approval for educational opportunities outside of the approved list, and appropriately record and report completed professional development units (PDUs) using an electronic reporting form. There were four main professional development categories (Table 1). Examples in each category were provided for students, and students were encouraged to seek and propose other opportunities they believed were of value but did not clearly fit into the examples provided. Students were required to complete 10 PDU's by the end of the Fall semester and a total of 25 PDU's by the end of the academic year. Students were required to complete a minimum of four PDU's from Category A (professional membership / involvement), and a minimum of two PDU's Category C (volunteer / civic activities). Additionally, students could obtain a maximum of 10 PDU's from Category D (miscellaneous activities). No restrictions were placed on Category B (educational programs/presentations).

The PDU reporting form was designed to simulate the online continuing education unit (CEU) submission certified athletic trainers complete for BOC credential maintenance. There were four sections to the form, one for each category, where students reported completed PDUs for qualifying activities. Students were also required to submit evidence of activities; such as an email showing

they joined the NATA or a certificate demonstrating completion of a workshop. Similar to the audit process of professional credential maintenance, evidence documents were assessed to confirm reported activities on the PDU reporting forms.

**Table 1.** Professional Development Requirement Categories

| Professional Development Requirement Categories    | Examples:  |
|--|--|
| Category A - Professional Membership / Involvement | NATA membership = 2 units<br>Serving on the District Student Senate = 4 units  |
| Category B - Educational Programs / Presentations  | Attendance at an AT professional meeting = 1 unit for each hour of attendance<br>Poster presentation at district meeting or higher = 5 units |
| Category C - Volunteer / Civic Activities          | Volunteering as a "mock patient" in an athletic training course = 1 unit   |
| Category D - Miscellaneous Activities              | Student legislative letter writing campaign = 1 unit per letter  |

## METHODS

A mixed methodology was selected for the current study. Institutional Review Board approval was acquired. Students in a professional level athletic training program at the bachelors and masters levels were recruited for the study and data were collected over two sequential academic years. Participants were recruited and educated regarding the study via in-person communication in class meetings, as well as by electronic methods. The professional development requirement was established as a programmatic requirement for all students in the professional athletic training program; however, participation in the current study was voluntary. Students were informed that at any time they could remove themselves from participation in the study completely and without negative consequence in their class or programmatic standing.

After students were introduced and invited to participate in the study, they were instructed regarding the three components: an online survey through Qualtrics at the mid and final points in each academic year, a focus group component completed at the end of each academic year; and the PDU reporting document at two points in each academic year. Participants were invited to participate in each component of the study separately, and informed consent was obtained for each segment of the study.

## Participants

In the first year of the study, a convenience sample of 18 students enrolled in a professional athletic training education program at the bachelors level were recruited. Of the 18 participants, the age range was 19 to 23 years; 10 were female and 8 were male. The ethnic group distribution was 67% Caucasian, 17% African American, 6% Hispanic, and 6% Other. All 18 participants participated in the survey and gave consent for researchers to use their PDU reporting forms for this study. Eleven students participated in the focus group. In the second year of the study, a convenience sample of 12 students enrolled in a professional athletic training education program were recruited. Second year participants included 9 undergraduate students who had participated in the first year of the study, and 3 masters level students with no previous experience with the professional development requirement. Second year participants range in age was 20 to 24 years; 8 were female and 4 were male. The ethnic group distribution was 75% Caucasian, 17% African American, and 8% Hispanic. All year two participants participated in the survey and gave consent for researchers to use their professional development reporting forms for this study. Seven students participated in the focus group in the second year of this study.

## Procedure

At the end of the Fall and Spring academic terms, potential participants were invited via email to complete the online survey. The survey included an explanation of the purpose, importance, and estimated time to complete the survey. The e-mail also included a statement informing the participants that by completing and submitting the survey, they gave their informed consent to participate in the investigation. This information was repeated at the beginning of the survey. The survey contained the complete informed consent statement showing approval from the sponsoring university's institutional review board. The survey was distributed online via Qualtrics. Data were exported from Qualtrics into excel for data analysis. Survey results were stored on the investigators' password-protected, university-owned computers.

Investigators asked participants for permission to use their professional development reporting forms in this study via email. Participants were provided with an explanation of how the data would be used, and how their identities would be kept confidential. The email also contained a copy of the informed consent form showing approval from the institutional review board for the protection of human subjects at the sponsoring university.

At the end of each academic year, participants were invited to join in an in-person, semi-structured focus group. Focus group

participants completed an additional informed consent form prior to participating. The focus group interviews were audio-recorded, transcribed verbatim by the researchers, and stored in a word (version 97-2004; Microsoft Inc., Redmond, WA) document on a password-protected, university-owned computer. All participants in the focus group were given pseudonyms to protect the participants' identity. Participants for both years were sent the transcript of the focus group for member checking and clarification as needed.

Data were analyzed after each academic year for the purpose of improving the professional development requirement program. The quantitative data (i.e. all survey Likert-style questions) were analyzed for descriptive information including measures central tendency (mode) and frequency counts. All open response questions on the survey were used in qualitative analysis. Qualitative data sources also included the focus group transcriptions, and student submissions for the PDU requirement. Data analysis was ongoing throughout the project. A constant comparative method and an inductive approach were used to analyze the qualitative data for trends and themes. Data were triangulated between the student PDU reporting forms, survey open response data, and focus group transcripts.

Trustworthiness of the data was established through various methods. Member checks and peer content review were used to verify content and quality of data. The investigators verified the accuracy of focus group transcripts prior to analysis by use of member checking. Throughout the data analysis process, an outside researcher experienced in mixed methodology and qualitative analysis reviewed the project for verification of process and analysis/results.

## RESULTS

### Question 1: Did Students Achieve the Student Learning Objectives of the Professional Development Unit (PDU) Requirement?

The SLO's for the PDU requirement included the following: 1) Demonstrate an understanding of the process of maintaining athletic training credentials and CE requirements by a) Locating and identifying qualifying educational opportunities, b) Seeking approval for educational opportunities outside of the approved list, and c) Appropriately recording and reporting completed PDU's; 2) Appreciate the benefits of being actively involved in the profession of Athletic Training; and 3) Appreciate the benefits of lifelong learning (Students are proactive in gaining access to and accomplishing learning).

#### ***SLO 1: Understanding of the Process of Maintaining Credentials***

Participants were asked "How helpful was this requirement in allowing you to learn what it will be like to maintain your professional credentials once you become licensed?" A 5-point Likert scale (very helpful to very unhelpful) was used. Survey results indicated that the majority of participants found the requirement to be "somewhat helpful" or "very helpful" in allowing them to learn what it will be like to maintain their professional credential once they became licensed (Table 2). Survey data shows that all participants at the end of year 2 found the requirement to be "somewhat helpful" or "very helpful", which was an improvement over year 1 and a positive indication of students finding value in the requirement.

**Table 2.** Understanding of the Process of Maintaining Credentials ("How helpful was this requirement in allowing you to learn what it will be like to maintain your professional credentials once you become licensed?")

|          | Very helpful | Somewhat helpful | Unsure | Somewhat unhelpful | Very unhelpful |
|----------|--------------|------------------|--------|--------------------|----------------|
| Fall 1   | 21.4%        | 64.0%            | 7.1%   | 7.1%               | 0%             |
| Spring 1 | 0%           | 83.0%            | 17.0%  | 0%                 | 0%             |
| Fall 2   | 25.0%        | 50.0%            | 12.5%  | 12.5%              | 0%             |
| Spring 2 | 60.0%        | 40.0%            | 0%     | 0%                 | 0%             |

When participants were asked to describe in their own words what the learning objectives were for the PDU requirement, common themes in responses included learning how to stay current in the field, networking, improving community involvement, and preparing the students for maintaining professional credentials after they graduate. One participant explained her thoughts on the purpose of the requirement by stating, "I feel that the requirement was supposed to prepare us for post-graduate expectations, so ... continuing education units, ... (and) to get us more involved in the community as well, so we aren't exiting [the University] having never had to find external opportunities for learning."

**SLO 2: Gaining an Appreciation for Professional Engagement**

Participants were asked “if the Student Professional Development requirement encouraged them to be more engaged in athletic training as a profession.” Survey responses revealed that participants were positive about the program requirement encouraging them to be more involved in the profession (50% in year one, and 80% in year two). Please see Table 3. One participant commented that “It kind of forces us to start doing things that aren’t just for our major and... go out and network and learn things from other programs and students that we don’t necessarily learn in our own program”.

**Table 3.** Gaining an “Appreciation” for Professional Engagement. (“The Student Professional Development requirement is designed to promote active engagement in the profession. Do you feel that this requirement was successful in achieving this goal (i.e. this requirement encouraged you to be more engaged in athletic training as a profession)?”

|          | Yes   | Not sure | No    |
|----------|-------|----------|-------|
| Fall 1   | 50.0% | 35.7%    | 14.3% |
| Spring 1 | 50.0% | 33.0%    | 17.0% |
| Fall 2   | 75.0% | 12.5%    | 12.5% |
| Spring 2 | 80.0% | 20.0%    | 0%    |

Participants noted several benefits from being actively involved in the profession of athletic training. One of those benefits was the sense of community they experienced through joining athletic training organizations, participation in volunteer events, and attendance at professional meetings. One participant wrote about joining the NATA and a local athletic training organization: “... I felt as though I would have the opportunity to become part of the local and national “team” of athletic trainers. The title of ‘member’ provided a sort of motivation to not only participate but soak in just what it means to be part of the organizations.” Another noteworthy perceived benefit was the opportunity to collaborate with students from other programs. For example, participants valued the volunteer work they did with athletic training students from other programs at concussion education sessions for local area high schools. Participants appreciated these benefits considerably and expressed enthusiasm for choosing to seek out these types of PDU and/or continuing education and service opportunities in the future as they transition to clinical practice. Finally, one participant recognized one other benefit from the professional development requirement, stating: “...[an appreciation for] networking with other professionals in the field so ... we can begin to form relationships and ... can go back to them when we are practicing on our own.”

**SLO 3: Gaining an Appreciation for Life-long Learning**

Some participants also noted that the professional development requirement encouraged them to find opportunities to learn. One participant stated “I think ... its actually given me incentives to want to go to the conferences, especially like the [regional/district meeting]... . These PDUs have given me incentives to want to go there and meet new people and talk to the speakers that are there, and learn more from these opportunities, so that was a huge positive that I got out of this as well.” Participants also noted an appreciation for participating in professional activities outside the scope of their regular program-based activities. Another participant stated: “...it caused me to go out and ... find other ways to apply athletic training ... that I might not have done on my own...”.

**Question 2: Are the Current Logistics Promoting Achievement of the SLO’s?**

Three main themes emerged from the data including: 1) options provided to complete the requirement, 2) accountability, and 3) the reporting process.

**Adequate Options Provided to Complete the Requirement**

The professional development requirement was designed to allow students freedom to choose how they engaged in the profession. To assess student perception of this aspect of the requirement, participants were asked if they felt they had enough options and autonomy to choose how they wanted to complete the PDU’s. A 5-point Likert scale (strongly agree to strongly disagree) was used. Data from the end of year 1 indicated that only a third of participants felt they had enough options (33% gave a rating of “agree”). Additionally, participants expressed a need for more guidance in what activities might qualify for each category. One participant explicitly expressed a need for more examples of activities in each category: “I think (the professional development program) could benefit from more examples because the three examples (in category D - miscellaneous) were the etiquette dinner, quiz bowl, and then a legislative writing campaign, which was still limiting in my brain because what does miscellaneous encompass?” Responding to this feedback, more examples were provided for each category in the instruction document and a more consistent effort was

made to advertise PDU opportunities as they arose throughout the year. In year 2, the majority of participants indicating that they either strongly agreed (20%), or agreed (60%) that there were enough options (Table 4), indicating that the changes from year 1 to year 2 had been effective.

**Table 4.** Adequate Options Provided to Complete the Requirement. ("The Student Professional Development requirement is designed to allow students multiple options and freedom to choose how they want to actively engage in the profession. Do you feel that this requirement was successful at achieving this goal [i.e., do you feel like you had enough options and freedom to choose how you wanted to complete the PDU's]?"

|          | Strongly agree | Agree | Unsure | Disagree | Strongly disagree |
|----------|----------------|-------|--------|----------|-------------------|
| Fall 1   | 21.4%          | 50.0% | 7.1%   | 21.4%    | 0%                |
| Spring 1 | 0%             | 33.3% | 33.3%  | 33.3%    | 0%                |
| Fall 2   | 25.0%          | 62.5% | 0%     | 12.5%    | 0%                |
| Spring 2 | 20.0%          | 60.0% | 0%     | 20.0%    | 0%                |

Although the majority of students thought there were enough options to fulfill the requirement, it should be noted that the most resounding theme that emerged regarding completion of the professional development requirement was that the focus for students was on completing units that were convenient. Students noted that cost was a barrier for participating in opportunities such as district meetings (i.e. travel expenses, and the cost of registration, etc.).

#### **Accountability**

Student feelings on accountability were strongly mixed. Participants appeared split on the subject of self-accountability for planning their PD units. Some students described a need for faculty to step in: "I think there should be more accountability and communication with those people who are struggling ..., or just don't have the motivation to go to those events at times, so I think that communicating and holding them accountable a lot more strictly to get those done will probably be a lot more beneficial." Others, understood the process of practicing self-directed learning and planning for continuing education: "I think it's a double-edged sword because you want to preach accountability and ownership, like self-responsibility because we're graduating from college ... I feel like (we) should know by now to ... maybe not save (PDUs) until the last minute."

#### **Ease of the Reporting Process**

Participants were asked to rate the ease of the professional development reporting process (completing the provided form and submitting it online). A 5-point Likert scale was used (extremely easy to extremely difficult). Overall, participants found the reporting documents to be easy to use for tracking and submitting their units. (Table 5). It should be noted that ratings improved between year 1 and year 2. In year 1, a few participants noted difficulty uploading supporting documents (i.e., evidence of participation, professional development reporting form, etc.), thinking that they had to upload all documents at one time at the end of the term. In the second year, students were taught how to upload documents throughout the year, which one participant noted, "... I think it was really easy on the computer to edit and keep (the reporting form) running as the semester and as the year goes (on)." Regardless of year, participants overall expressed appreciation for the requirement and the framework for completing it.

**Table 5.** Ease of the Reporting Process ("How would you rate the ease of the PDU reporting process (completing the provided form and uploading items into Canvas?")

|          | Extremely easy | Somewhat easy | Neither easy or difficult | Somewhat difficult | Extremely difficult |
|----------|----------------|---------------|---------------------------|--------------------|---------------------|
| Fall 1   | 42.9%          | 28.6%         | 14.3%                     | 14.3%              | 0%                  |
| Spring 1 | 33.0%          | 33.0%         | 17.0%                     | 17.0%              | 0%                  |
| Fall 2   | 71.4%          | 14.3%         | 14.3%                     | 0%                 | 0%                  |
| Spring 2 | 80.0%          | 20.0%         | 0%                        | 0%                 | 0%                  |



## DISCUSSION

The Board of Certification (BOC) sets the requirements for continuing education and national credential maintenance for athletic trainers, and some states also require continuing education for state credential maintenance. Thus, it seems appropriate for athletic training programs to prepare students to seek out and select educational opportunities and to learn how to appropriately budget for and document their efforts in continuing education. The described program requirement was successful in fulfilling the intended purpose. The researchers found that the students achieved the SLOs of the professional development requirement. Specifically, students were able to a) locate and identify qualifying opportunities, b) seek and gain approval for educational opportunities outside the approved list, and c) appropriately record and report their PDU's. Students identified several benefits to the new program requirement including involvement in professional socialization opportunities, exposure to emerging practices and techniques, and an appreciation for the process of credential maintenance. Finally, this requirement encouraged students to be proactive in gaining access to and accomplishing learning outside of the professional program, demonstrating behaviors associated with life-long learning.

Within year 1 of the study, there was some slight contrast in survey responses between Fall 1 and Spring 1 in that students shifted slightly more negatively in their perceptions of the value of the program and how easy it was for them to access PDUs. Students were required to complete a minimum of 10 PDU's by the end of the Fall semester and a total of 25 PDU's by then end of the academic year. Students that only completed 10 PDU's in the Fall semester would have 15 PDU's to complete in the Spring and thus may have felt an additional challenge in finding and completing 5 additional PDU's in the Spring than they did in the Fall semester. The slight change may also be attributed to student adjustment to a new program requirement. It is worth noting, that from the first to second year of the described professional development requirement, student perception and value of the program markedly improved. (Table 2).

The researchers found that the logistics associated with this requirement did help promote achievement of the SLO's. However, after review of the data from the first year, it was determined that the following areas should be targeted for improvement: education on how to submit online evidence of professional development activities, guidance and mentorship for the purpose of timely student progress, promotion of greater autonomy for the purpose of encouraging students to recognize opportunities independently, and improved clarity of PDU options and advertisement of unique PDU options that might occur through the year. Strategic decisions were made in each of these areas to improve the quality of the program requirement. For example, a few students noted frustration in the first year when trying to upload all supporting documents at the end of each semester. In response, efforts were made in the second year to educate students on how to upload documents throughout the semester. As highlighted by survey and focus group responses, this tactic was effective in meeting its intended goal.

In the first year, students varied in their desire for more assistance in locating and selecting PDU opportunities. While the original intent was for the mid-year submission to be the "check-in", to further encourage students to be proactive in their fulfillment of this requirement, program faculty members in the second year informally checked-in with students at mid points in each of the semesters. The additional check-ins by program faculty in the second year of the study served to gauge the status of each student and to encourage attention to the requirement wherever individually necessary. Students were asked to identify how many PDU's they had completed and to create a plan to complete the rest. To better communicate available PDU opportunities, an online message board was created where any instructor in the program could advertise opportunities for students to earn PDU's. More options/examples were also listed in each category in the professional development requirement documents to help students recognize the wide range of opportunities that could meet the requirement. After the second year, students noted easier access to appropriate events that met the requirement compared to the participants in the first year.

While participants experienced anticipated barriers to meeting a new requirement, they also valued the process more appreciably as they gained experience with it. They acknowledged greater understanding of credential maintenance in the second year compared to the first (100% of participants after the second year rated their benefit in understanding of credential maintenance at a "Somewhat" or "Very Helpful", compared to 83% of the participants rating their benefit to understanding at "Somewhat Helpful" at the end of the first year). Participants also noted a greater appreciation for engagement in the field from the end of year one to the end of year two (50% versus 80% felt they gained an appreciation for participating in professionally engaging activities in the field, respectively).

The literature regarding professional continuing education programs notes that cost and travel are barriers to continuing education for athletic trainers, which was consistent with participants in this study, who also noted cost as a barrier.<sup>16,17</sup> Although efforts were made to reduce the cost for students to attend regional meetings, in the future, more may be done in this area to assist students. It is important that students are encouraged to seek out opportunities that they feel are interesting and relevant and not feel forced to choose options that are simply convenient or free.

One of the goals of professional development and continuing education for allied health professionals common in the literature is to improve patient care.<sup>18,19</sup> To ensure that continuing education translates to professional practice, Neimeyer et al made the following recommendations: 1) start with assessing areas of professional need and select workshops to meet those needs, 2) choose continuing education programs that include interactive components such as skills demonstrations, 3) select programs that offer follow-up opportunities, and 4) after completing a continuing education activity, make a list of specific goals about what you might do differently.<sup>17</sup> The version of the program requirement described in this article did not include self-assessment. It also did not require self-reflection or goal-setting related to how the students will use the information to provide better patient care. The authors believe that this is one area where the program requirement might be improved in the future.

Overall, the professional development requirement was effective in meeting the program goals. We recommend other athletic training programs considering a similar program requirement to explore the work of Neimeyer et al and encourage students to make thoughtful choices in their professional development activities and teach them how to translate what they learn into improved patient care.<sup>17</sup> Further recommendations regarding the implementation of such a requirement include a thoughtful approach to continuous assessment of the program. Feedback from students with purposeful adjustments could make a significant impact on the effectiveness and practical application of a similar requirement in an athletic training program. To reduce barriers, athletic training educators should also take time to educate students as to the mechanics of completing such a requirement, and the process of searching for, and selecting professional development opportunities that are accessible. Future research in this area should include goal setting and reflective components as a part of the professional development requirement.

### LIMITATIONS AND FUTURE DIRECTIONS

There were limitations to this study. This study used a small convenience sample from one professional level athletic training program which may limit generalizability. Although the focus group interviews provided the investigators with thoughtful feedback, only 61% of the year 1 participants completed the focus group interviews, and 58% of the year 2 participants completed the focus group interviews in year 2. The opinions of the students who did not participate in this portion of the study could have been relevant. In the future, participants could be more completely recruited for this part of the study.

As described, the professional development requirement was designed to mimic the BOC requirements with modifications to better suit students in a professional athletic training program. Future research should be conducted to explore participants' views regarding the value of this program requirement from the perspective of the practicing athletic trainer. A focus on how well the program prepared graduates for completion of continuing education requirements for credential maintenance through the BOC could be valuable for continued programmatic improvement and understanding of the overall merit of the program. Investigating the transferability of the skills gained through this program requirement to the real world could provide valuable insight into its effectiveness. Future studies should also consider comparing the perceptions of new athletic trainers who graduated from programs who have a similar requirement to those that did not have this type of requirement in their education programs.

### CONCLUSION

Athletic training students in the current study benefitted from participation in overt pedagogy in professional development. Establishment and cultivation of a professional development requirement may benefit athletic training programs for the best preparation of athletic trainers before they transition to practice.

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