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# Factors Contributing to Professional Self-Efficacy Levels in Recently Graduated Certified Athletic Trainers

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## ABSTRACT

Self-efficacy is an important factor for job success, but it has been cited as a missing factor in new athletic training graduates (Hecimovich 2014, Carr 2012). Therefore, the objective of this study was to find what factors affect the development of self-efficacy in the recently graduated certified athletic trainer. A qualitative survey method was utilized that involved questions aimed to extract as much personal opinion and experiences as possible. Online surveys were sent out electronically to 1,000 prospective participants. A total of 64 survey responses were received but only 52 surveys were qualified for inclusion into the study. Data was collected via the online survey service and analyzed through review, synthesis, and extraction of common themes. Several themes were extracted and considered as factors that affect self-efficacy development in the recently graduated certified athletic trainer. The results provide legitimate suggestions for how to increase self-confidence in the athletic training student.

## INTRODUCTION

It is undeniable that professional self-efficacy is an important factor for job success (Hecimovich 2014).

A crucial method that is foundational in developing professional self-efficacy in the undergraduate student is through a school educational program, especially through clinical education for athletic training students (Alavi 2015, Holland 2012, Laurent 2002). Because of these facts, educators should know what activities aid its development in a student (Hecimovich 2014). *Self-efficacy* is a term that has been commonly defined as a person's belief about his or her ability to successfully perform and accomplish a task in the face of limitations (Alavi 2015, Bobo 2012, Dendall 2002, Raack 2014). A high perceived sense of self-efficacy results in less fear to perform, less initial stress in the initial encounter of a new task, greater diligence, and greater success (Alavi 2015, Bobo 2012). Not only does high perceived self-efficacy increase an individual's quality of care, but it also increases an organization's total quality of care (Hecimovich 2014).

Self-efficacy and performance are closely related; therefore, it is imperative that healthcare practitioners acquire an optimal level of self-confidence prior to entrance of professional practice in order to be successful (Hecimovich 2014, Dendall 2002). Self-confidence levels can be affected in a plethora of ways, but an important medium is education programs (Holland 2012). Therefore, in healthcare education programs, the educators, mentors, and supervisors must be aware of the implications of self-efficacy on performance and take responsibility to intentionally promote self-confidence in a student to avoid the development or festering of a negative mindset in the student (Alavi 2015). However, in the medical field of athletic training, there has been a reported confidence deficiency in employed young professionals (Carr 2012). Unfortunately, even though there is a lot of informal discussion about student confidence and a need to develop self-confidence in a student, there seems to be either minimal research or simply a complete lack of research in the current literature about what factors leave the athletic training graduate with a lack of professional self-confidence.

## PURPOSE

The purpose of this study was to identify what factors in a young, employed certified athletic trainer's (ATC) undergraduate athletic training studies may have contributed to their self-efficacy levels in professional practice

## METHODS

The proposed study was submitted to Cedarville University's Institutional Review Board for the Protection of Human Subjects. The study received approval to proceed as specified on September 9, 2015. An online survey was constructed using Qualtrics software. The survey consisted of 14 close-ended questions and 26 open-ended responses. Several questions assessed demographics including state licensure and years of experience. Confidence assessment of 5 athletic training skills was conducted using a 5-point Likert scale. The final section included open-ended questions aimed at extracting personal experiences and opinions. A total of 1,000 athletic trainers registered in the National Athletic Trainers Association's Young Professionals Committee with a registered email address were contacted regarding the study. An e-mail containing a cover letter and a link to the survey was forwarded to each of the potential participants. Of those who were contacted, 64 completed the survey, but only 52 qualified for inclusion in the study. Before participating in the study, all respondents read and agreed to an informed consent statement approved by the Cedarville University's Institutional Review Board for the Protection of Human Subjects. In order to respect the participants' rights, the objective of the study, the confidentiality of the information obtained, and the individual's right to not participate in the study were explained to them in the survey invitation email.

## STATISTICAL ANALYSIS

All surveys and survey answers were collected and stored by the online survey service Qualtrics. These surveys were printed out for analyzation by the lead investigator. The open-ended questions containing qualitative data were analyzed without the use of any analyzation software. Instead, the lead investigator read and transferred an interpretation of each survey's open-ended questions' answers onto a Word document. The interpreted answers were then assessed and synthesized depending on similarities in interpretation. The more frequent answers were selected as the factors that may have a role in the development of professional self-efficacy levels.

## RESULTS

Of the 1,000 surveys sent out, 64 responses were received and only 52 surveys were able to be utilized for data analysis which decreased the response rate to 5.2%. Each survey represented one study participant; therefore, a total of 52 participants were included in this study (19 males, 33 females, mean age 25 y, mean years of experience 2.7 y). All 10 NATA districts and 30 states were represented by the respondents. Of the 52 total participants, 48 received undergraduate athletic training degrees from a CAATE-accredited college or university while the remaining 4 received entry-level graduate athletic training degrees from a CAATE-accredited college or university, only 18 of the total participants received an athletic training degree from both a CAATE-accredited undergraduate and graduate institution, 46 of the total participants passed the Board of Certification examination on their first attempt, only 17 participants are practicing without coworkers or a supervisor, and 30 participants have practiced athletic training elsewhere other than their current setting.

Regarding total (100%) confidence score percentages from the Likert scale question, a rating of 1 accounted for 0%, a rating of 2 accounted for 4%, a rating of 3 accounted for 15%, a rating of 4 accounted for 40%, and a rating of 5 accounted for 43%. Concerning Injury Evaluation Skills, the average score was 4.29 with no scores below a rating of 3. Concerning Differential Diagnoses Skills, the average score was 4.08 with no scores below a rating of 2. Concerning Emergency Care Skills, the average score was 4.13 with no scores below a rating of 2. Concerning Taping Skills, the average score was 4.54 with no scores below a rating of 2. Concerning Injury Rehabilitation Skills, the average score was 4.17 with no scores below a rating of 2.

When asked if a participant's undergraduate athletic training education program experience contributed to their current confidence level, 43 of the respondents claimed that it did while the remaining 9 said that it did not. Those who claimed that it did not shared that their undergraduate program provided a great base of knowledge for clinical practice, but their programs failed to allow autonomy and independence for them to apply their education. The most common themes extracted were Extensive Clinical Rotations, Professors and Preceptors, Academic Courses, and Autonomy.

When asked if the participant's overall experience in their current practice has had any contribution to the development of their current confidence level, 49 respondents claimed "yes" while the remaining 3 said "no." For those who had claimed a contribution, the majority of experiences provided by the participants during elaboration of why were found to be positive; however, a minimal amount of negative experiences were given as well. These negative experiences included a lack of exposure to certain situations which results in a decreased confidence level when those situations arise, a constant questioning by supervisors of decisions made by the individual, and constant criticism in the workplace. The most common themes extracted were Autonomy, Collaboration with Other Athletic Trainers, and Experiences.

When participants were asked to elaborate on their opinion of what they believe to be the most crucial factor in the development of confidence in respect of becoming a successful athletic trainer, a plethora of opinions were provided and grouped into 4 common themes: Experience, Intrinsic Qualities, Education, and Communication.

In order to provide current students with experience-based advice as to how to develop confidence, suggestions were acquired from the participants. An analysis of the responses by the participants of the study provided an extraction of 4 common themes: Make Mistakes, Develop Autonomy, Continue to Learn, and Believe in Yourself.

In order to provide a base of data for athletic training education programs to implement in order to better improve confidence development in the undergraduate athletic training student, this survey also aimed to extract suggestions from the participants. A total of 3 themes were able to be extracted due to commonalities in responses: Promote Autonomy, Clinical Experiences, and Modify Curriculum.

## DISCUSSION

The major findings of the results of this study are that there are legitimate factors in undergraduate athletic training education programs that influence the development of self-efficacy in the recently graduated certified athletic trainer, that there was not just one specific aspect of the undergraduate athletic training education program that influenced the development of self-efficacy, that not every undergraduate athletic training education program seems to be able to have a role in the development of self-efficacy, and that there are legitimate factors in professional practice that have a role in the development of self-efficacy that are different than the factors provided in educational training.

Multiple studies have shown that self-efficacy is an important determinant in task performance and perseverance and that a high level of self-efficacy does have an impact in the quality of healthcare provided (Alavi 2015, Bobo 2012, Dendall 2002, Raack 2014). Carr & Voldberding have established evidence that there is a deficiency in self-efficacy levels in new athletic training graduates (Carr 2012). Therefore, the importance of the results of this study is that it can aid in the provision of implementable and practical suggestions as to what can be done in order to reduce high levels of low self-efficacy in new athletic training graduates. Based on logic, if healthcare quality can be improved with high self-efficacy levels, then a reduction in low self-efficacy levels in new athletic trainers will aid in higher quality athletic training services.

The results of the study support and are supported by findings in several studies found within a review of the current literature that have researched the impact of self-efficacy, the factors that affect self-efficacy, and the factors that increase self-efficacy.

One interesting thing to note is that although "autonomy" was a theme found to be consistent in almost every open-ended question and was mentioned in at least one theme in every open-ended question, it was not a consistent finding with the results of other studies found by the lead researcher when a review of existing literature regarding the factors that affect self-efficacy and the factors to increase self-efficacy was conducted. Even though there may not be any existing literature regarding clinical autonomy's role in the development of self-efficacy, we believe that autonomy is still an important factor in the development of self-confidence in the athletic training student and in the certified athletic trainer and should be seriously considered as an important factor to be considered when assessing methods to increase self-efficacy in the athletic training student or in the healthcare professional.

All of the results of this study are believed to be able to be used by all healthcare professionals but most specifically by athletic training healthcare professionals and education staff in order to develop confidence in the young healthcare professional. The results specifically provide suggestions for athletic training students and for athletic training education programs to follow in order to increase student self-efficacy levels.

Limitations of the study include a low response rate of 5.2%, time constraints, poor communication, and poorly developed and formatted survey questions.

## CONCLUSION

The results indicate that there are legitimate factors that support and are supported by current literature that contribute to the development of professional self-efficacy levels in recently graduated certified athletic trainers. Along with that, the results of this study also provide legitimate, research-supported suggestions as to how to increase self-efficacy levels in the undergraduate athletic training student. It is important for this information to be considered due to an established need for high self-efficacy levels in the new athletic training graduate practicing in a professional setting in order to possibly provide higher quality care.