

Differing Employer and Alumni Opinions of New Graduates' Abilities

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Abstract

Across multiple disciplines, seasoned veterans often state that recent graduates are not ready to practice. Previous work has established a set of soft skills considered lacking in new athletic training (AT) graduates. To measure the opinions of AT employers and alumni about the recent graduates' six soft skills (communication, confidence, independence, creativity, humility, and work ethic) and the seven Foundational Behaviors of Professional Practice (FBPP) delineated in the 5th Edition of the AT Education Competencies. The study was conducted through a quantitative online survey instrument within three clinical work settings (College/University, High School/Clinic, and Emerging Practices). Snowball sampling through a variety of email strategies yielded 218 employers of recent AT graduates and 376 recently graduated AT alumni. Self-reported opinions of abilities and employers' opinions of recent graduates' abilities were collected using the alumni opinion survey (AOS) and employer opinion survey (EOS) respectively. Demographics of the groups and ratings on a Likert-like scale (1-10) were captured for the previously identified six soft skills as well and the seven FBPPs. Analysis of variance was conducted to determine differences between employers and recent graduates and within each group. With the exception of two areas of FBPPs (primacy of the patient and advancing knowledge), significant differences were found between employers and recent graduate groups in all of the six soft skills and five FBPPs. Two possible explanations are made by the authors. Recent graduates are accurately rating their abilities while employers are more critical or conversely recent graduates are inflating their abilities while employers are rating them accurately. When looking at the average values from each group, both were well above average suggesting that recent graduates are doing well, perhaps just not as well as employers would prefer.

Key Words: Transition to practice, preparedness, professional socialization.

Introduction

The anecdotal reports that recent graduates are not ready for the workforce is not new and is not limited to athletic training. Some may be tempted to dismiss this anecdote and equate the criticism with generational-ism – that older professionals think they are better than the younger professionals.¹ It has been shown that communication skills vary between the generations.²⁻⁴ It is unknown if the lack of preparation for the workforce actually exists, but a study has demonstrated this opinion and found that employers, and recent graduates believed that they were not prepared on several soft skills (e.g., communication, independence, humility).⁵ The potential disconnect in opinions can lead to unrealistic expectations placed upon the new graduate and employer dissatisfaction of recent graduates they have hired. This in turn can undermine new graduates' self-confidence and further hinder their performance with negative consequences in patient care. As expectations of employers change, it is imperative that educators respond accordingly. A study from Canada in the field of Occupational Therapy found that employer expectations were often less or modified when hiring new graduates.⁶

Additionally, the American Association of Colleges & Universities contracted a study of employers and college students in which employers gave lower ratings than students gave themselves on nearly all of the 17 learning outcomes (e.g., people skills, verbal and written communication skills, and problem solving skills).⁷ A small scale study in the field of nursing identified gaps in skill and behavior competencies between what was taught and what was exhibited by recent graduates from the opinion of nursing supervisors.⁸ The nursing supervisors' opinions were used to initiate changes in what was being taught in the education program that conducted the study. To date we have found no studies that measured opinions of new graduate preparation for the workforce within athletic training.

Preparation for the workforce can take many forms based upon any given perspective. When looking at specific areas of clinical practice, previous work has identified qualifications and experiences⁹ as well as a series of soft skills that both employers and new graduates feel are important yet lacking in new athletic training graduates.⁵ The soft skills were defined as; communication, confidence in decision making, independence, thinking outside the box, humility and learning from mistakes, and work ethic. The Foundational Behaviors of Professional Practice (FBPP) were defined by the National Athletic Trainers Association (NATA) and appeared in the 5th edition of the Education Competencies.¹⁰ The FBPPs are; primacy of the patient, team approach to practice, legal practice, ethical conduct, advancing the profession, cultural competence, and advocate for the profession. The FBPPs were intended to be developmental behaviors and were utilized in our study to serve as an outcome assessment of the education and experience provided to the new graduates. These skills and behaviors directly align with previous work where employers are most concerned with soft skills over hard skills.¹¹ Authors Kahanov and Andrews¹² applied the Hiring Criteria Survey¹³ to athletic training employers' and found that the most important criteria were personal characteristics such as self-confidence, maturity, and interpersonal skills.¹² A study by Arnold *et al*⁹ asked employers to rate a series of employment characteristics that they found desirable. The characteristics were related to qualifications and experience as opposed to this projects' focus on soft skills and behaviors. While literature has demonstrated that soft skills are important to a new employee's success, we have found no studies of employer and new employee opinions of preparation for the workforce.

The relationship between newly transitioned athletic trainers and their mentors is essential for success in the field. One route to a successful mentor/mentee relationship is professional goal matching.^{14,15} Goal matching should consider how to support the newly transitioned athletic trainer's professional and psychosocial growth while providing setting, employment specific and overarching career mentorship.^{3,15-18} While goal matching with mentors can ease the transition of a new graduate, generational attributes can be a hurdle to the mentor/mentee relationship.

The interaction between employers and new graduates is a key component to success and generational attributes and professional goals may contribute to this perceived lack of preparation.^{19,20} The current generation of both employers and new professionals are part of the millennial generation and with the new professionals soon to be generation z.²¹ Millennial practitioners seek out immediate feedback, desire recognition and praise, are reliant on technology, are independent but work well in teams, and are accustomed to an instant response and satisfaction.^{2,18,21} Additionally, Generation X individuals prefer a more direct and abrupt speech style.² With both the employer and new professional utilizing these attributes there are

opportunities for perceived distance between the employer and new professional, challenges in communicating, and the reliance on technology, which may not allow for a traditional mentorship opportunity. It is essential that as the young professional transitions into practice and is mentored by the employer, communication styles and expectations are addressed with both individuals mutually invested in the success of the young professional.^{3,15}

One could argue that a more mature student would have a higher level of many of the desired soft skills that employer's desire. Key finding #4 of the Professional Education in Athletic Training white paper delineates attracting students capable of assimilating increasingly complex tasks.²² A mature student is capable of assimilating complex tasks. A model of psychosocial maturity was first proposed by Greenberger and Sorensen that emphasized effective interpersonal relationships as one of three general dimensions of maturity.²³ With the ongoing transition and maturation of athletic training education, it is important to establish benchmarks for comparison across time. The purpose of this study was to examine the difference between employers' opinions of new graduates skills and behaviors with the self-rated opinion level of skill and behaviors of new graduates.

Methods

Participants

Our study was approved by the Institution Review Board. A snowball sampling method utilized a variety of email sources to solicit participants. This study was the next phase of a previous project where a sample of convenience of program directors were utilized.⁵ The first sampling method was to contact education program directors to forward the Alumni Opinion Survey (AOS) to recent graduates (within 3 to 5 years of graduation) and the graduates in turn had the option to provide contact information to their employers. Our study solicited 61 education programs from across the country that had personal connections with the research team. We did not capture the school attended by the graduates to confirm an education programs' participation. The second sampling method was to go directly to employers by utilizing the NATA to contact certified athletic trainers that self-identify as supervisors of recent graduates to complete the Employer Opinion Survey (EOS) and they in turn provided contact information to the recent graduates they supervise. The research team was not included in the email solicitation process from the NATA and was not informed of how many emails were distributed. Regardless of the method of recruitment, the survey was completed anonymously, with no participant identifiers included. A total of 218 employers (average 5.7 ± 3.8 months of supervising the new employee and average of 13.5 ± 10.5 years of experience in a supervision role) responded to the email solicitation. A total of 376 recent graduates (122 males, 183 females, 71 not reported) responded to the email solicitation. Table 1 details additional demographics of the recent graduate group.

Data Collection

Two similar survey instruments were created for this project. The EOS combined two demographic questions (years supervising the new graduate and years of serving in a supervisory role) with Likert-like scale rating questions of the six soft skills, seven FBPP, and one general question of preparedness for the workforce. The EOS Likert-like rating scale questions for the soft skills were superseded with a yes/no question of "can you rate their...?" then posed with a question cue of "Please rate their ability to..." and anchored with 1 = Low, 5 = average, and 10 = High. If the respondent did not indicate "yes" they were not asked to rate the skill. One of the six

soft skill rating questions (communication) was divided into six sub groups to represent the various stakeholders⁴ (coach/clinic director, patient/athlete, parent of patient/athlete, administrator, peers, and other health care professionals) that ATs regularly interact with. The EOS Likert-like rating scale questions for the FBPP were posed with a question cue of “When the athletic trainer started under your supervision, how well prepared were they in the following...” and anchored with 1 = Not acceptable/Never, 5 = Average/Frequently, and 10 = Outstanding/Always and a Not Applicable (NA) option. The Likert scale for the EOS was anchored with dual terms due to the question cue context. Some of the cue statements were in the context of the employees’ ability to do something whereas some of the statements were in the context of the frequency with which the employee demonstrates a given variable. The EOS Likert-like rating scale questions for the general question of preparedness for the workforce posed with a question cue of “How well prepared were they for the workforce when they started?” and anchored with 1 = not at all and 10 = very well.

The AOS combined several demographic questions (gender, state or private institution, bachelor’s or master’s degree program, athletic affiliation of degree institution, yes or no currently employed, and work current setting) with the same Likert-like scale rating questions contained in the EOS instrument with different question cues. The AOS Likert-like rating scale questions for the soft skills were posed with a question cue of “Please rate the following with regards to your ability to...” and anchored with 1 = Low and 10 = High. The AOS Likert-like rating scale questions for the FBPP were posed with a question cue of “Reflect back upon when you started your current job and please rate yourself on the following...” and anchored with 1 = Not acceptable/Never and 10 = Outstanding/Always and a Not Applicable (NA) option.

Data Analysis

Face validity was established through the review of both instruments by three experts well versed in survey design. Minor modifications were made based upon feedback. A Cronbach’s alpha score was calculated for each instrument to ensure reliability (AOS $\alpha = .816$ and EOS $\alpha = .976$). Basic descriptive statistics were calculated for the demographics and Likert-like rating questions of soft skills and FBPPs. An analysis of variance (ANOVA) between and within groups was conducted to determine differences. The EOS general question of preparedness for the workforce was analyzed with descriptive statistics. An a priori level of significance was set at $p < .05$. Effect sizes were calculated and rated as low ($<.2$), medium ($.3 - .5$), and high ($>.6$). The analysis was performed using IBM SPSS (version 21.0; SPSS Inc., New York, NY).

Results

A response rate was unavailable as the snowball recruiting methods made it impossible to determine an exact number of potential participants. A total of 218 employers and 376 recent graduates completed their respective survey instruments. From a review of publicly available data, the sample of recent graduates is roughly representative of the national distribution based upon gender. Table 1 details the demographics for the recent graduate group.

Table 1. Recent Graduate Group Demographics

Variable	Gender	
	Male (n=116)	Female (n=178)
Degree level		
Bachelor's	81	124
Master's	35	54
Institution affiliation		
State	106	168
Private	10	10
Athletic Affiliation		
NCAA Division I	67	113
NCAA Division II	24	23
NCAA Division III	13	31
NAIA	12	10

Abbreviations: NCAA, National Collegiate Athletic Association; NAIA, National Association of Intercollegiate Athletics.

A comparison of soft skills within the groups yielded no significant results. A comparison of soft skills between the employer and recent graduate groups indicated that all of the skills were significantly different (Table 2). The largest mean score for the employers (8.08 ± 1.98) corresponded to the recent graduates (9.3 ± 1.99) for work ethic. While each of the comparisons were significant, the effect sizes indicate that the magnitude of the difference was small. The largest effect size (.186) occurred with humility and learning from mistakes.

Table 2. Employer and Alumni Descriptive Statistics and ANOVA Significance Results

Variable	Employer Mean (SD)	Alumni Mean (SD)	F	Sig.	Effect Size
Soft Skills					
Communicate with a coach/clinic director	6.72 (2.59)	8.26 (1.75)	64.61	.000	.113
Communicate with a patient	7.81 (1.85)	9.08 (1.95)	88.40	.000	.148
Communicate with a parent	7.02 (1.97)	7.68 (2.18)	11.16	.001	.024
Communicate with an administrator	6.82 (2.13)	8.01 (1.83)	44.19	.000	.082
Communicate with peers/colleagues	7.86 (1.81)	9.09 (1.15)	88.52	.000	.148
Communicate with other health care providers	7.53 (2.01)	8.45 (1.53)	34.11	.000	.068
Confidence in decision making	6.87 (2.35)	8.04 (1.49)	47.58	.000	.085
Independence	7.72 (1.87)	8.51 (1.51)	27.84	.000	.051
Thinking outside the box	7.12 (2.32)	8.07 (1.56)	30.82	.000	.057
Humility and learning from mistakes	7.47 (1.91)	8.95 (1.18)	117.49	.000	.186
Work ethic	8.08 (1.98)	9.30 (1.99)	84.75	.000	.142
Foundational Behaviors of Professional Practice					
Primacy of patient	7.96 (2.95)	8.29 (1.55)	1.26	.262	.004
Team approach	7.78 (1.82)	8.53 (1.52)	14.55	.000	.042
Legal practice	7.99 (1.91)	8.51 (1.81)	5.98	.015	.018
Ethical conduct	8.60 (1.68)	9.01 (1.49)	4.81	.029	.029
Advancing knowledge	7.55 (1.98)	7.98 (1.86)	3.68	.056	.011
Cultural competence	7.73 (1.73)	8.36 (1.73)	10.18	.002	.030
Advocate for the profession	8.01 (2.01)	8.99 (1.37)	22.39	.000	.060

Abbreviations: ANOVA, Analysis of Variance; SD, Standard Deviation.

A comparison of the FBPPs within the groups yielded no significant results. A comparison of the FBPPs between employer and recent graduate groups indicated that five of the seven behaviors were significantly different (Table 2). The largest mean score for the employers (8.6 ± 1.68)

corresponded to the recent graduates (9.01 ± 1.49) for ethical conduct. For the five significant behaviors the magnitude of the difference was small. The largest effect size (.06) occurred with advocates for the profession.

The EOS instrument contained one general question of how well prepared for the workforce was the recent graduate. This was rated at 7.23 ± 2.28 .

Discussion

Overall our findings align with the previously stated findings where employee ratings exceed their employers perceptions of the same skill.⁷ Based upon our findings, the recent graduates and employers did not agree about the level of preparation of recent graduates on any of the soft skills. Of these soft skills, communication was determined to have a gap between employers and recent graduates. Cordeniz¹ states that this may be due to the impact of age on an individual's communication skills.² Generation X'ers (employees) prefer a more direct and abrupt speech style.² As both the employer and recent graduate utilize this communication styles, it may account for the differences we found in ability to communicate with employers rating recent graduates lower than the recent graduates rate themselves.

Furthermore, work by Kupperschmidt⁴ notes that Generation X'ers lack basic skills in communication. They avoid face to face conversations, utilize technology, and expect immediate responses.^{2,18,21} Mentorship depends on high quality communication between the mentor and mentee and thus if both are avoiding face to face conversations and utilizing technology, quality mentorship may not be occurring. Kahanov and Andrews¹² found that employers ranked oral communication skills eighth out of sixteen personal characteristic options for hiring criteria. In contrast, our own findings from a previous study suggest that both employers and recent graduates rate interpersonal communication as the most frequently cited characteristic missing in recent graduates.⁵ It is possible that the slight deviation in terminology and operational definitions between oral communication and interpersonal communication can account for the differences considering the Kahanov and Andrews study had the additional criteria of Interpersonal skills as an option.

Two of the FBPP variables (primacy of the patient and advancing knowledge) were not significantly different. In both cases the differences were within the standard deviation. Both are well above the median option and this is encouraging that recent graduates are placing a focus on their patients and new knowledge. The difference of opinion for the FBPP variable of team approach might be explained by a generational difference and approach to work. As noted by Cordeniz, Baby Boomers prefer to work as a team while Generation X'ers prefer to work alone.²

A focus group study from 2015 reported that for a successful mentor/mentee relationship, an environment of autonomy and collaboration along with the opportunity for skill acquisition and development is necessary.³ Our findings suggest that while the constructs of autonomy and independence are related, employer and recent graduate ratings of independence were different but still valued. Furthermore, a similar relationship in our findings of confidence in decision making, humility, and learning from mistakes are related to skill acquisition and development. Even if the recent graduate and employer don't agree on how well prepared the recent graduate is

for the job, it is clear that a successful recent graduate needs an employer that provides a supportive environment.²⁴

Limitations and Suggestions for Future Research

By the nature of trying to reach a large group with the survey instruments we utilized multiple strategies for sampling. Getting access to employers was difficult when going through two effective filter layers of the education program director and alumni. An alternative strategy of going directly to the employers was effective in raising our participation numbers. Neither strategy yielded what could be reasonably described as a representative sample thus limiting the generalizability of our results. Perhaps a more concerted and focused effort from the accreditation body or national membership association could yield a representative sample. Our data was collected over the course of 16 months (2015-17) and represents a snap-shot in time of opinions. As the profession continues to mature and evolve these opinions will likely change. Periodic measures or longitudinal measures would allow for trends to be detected and addressed. A sample bias may have occurred as those graduates with stronger soft skills may have chosen to respond to the survey while those with weaker skills opted out. Similarly, a sample bias may have occurred with employers that are more critical of new graduates. Much of our employer sample were likely college and university setting employers. That setting is the largest in the profession and often very vocal on issues of professional development. A qualitative interview methodology might obtain a more balanced yet much smaller sample.

Conclusions

Results would suggest that employers and alumni do not agree about the recent graduates' level of preparation. We suggest one of two possible explanations; 1) Recent graduates are accurately rating their skills while employers are more critical, or 2) Recent graduates are inflating their skills while employers are rating them accurately. When looking at the average values from each group, both were above the median possible score suggesting that new graduates are doing well, perhaps just not as well as employers would prefer. When considering that the employer group rated the recent graduate preparation for the workforce well above the median it would suggest that the anecdotal suggestion of recent graduates not being ready for the workforce is false. Perhaps more effort needs to be made in involvement of employers in the education process to clearly delineate their expectations while more effort is made in on-the-job orientation and training of recent graduates.

References

1. Codrington G. Detailed introduction to generational theory. *Tomorrow Today*. 2008;2.
2. Cordeniz JA. Recruitment, retention, and management of Generation X: A focus on nursing professionals. *Journal of Healthcare Management*. 2002;47(4):237.
3. Mazerolle SM, Bowman TG, Klossner JC. An analysis of doctoral students' perceptions of mentorship during their doctoral studies. *Athletic Training Education Journal*. 2015;10(3):227-235.
4. Kupperschmidt BR. Understanding generation X employees. *Journal of Nursing Administration*. 1998;28(12):36-43.
5. Carr WD, Volberding J. Employer and employee opinions of thematic deficiencies in new athletic training graduates. *Athletic Training Education Journal*. 2012;7(2):53-59.

6. Mulholland S, Derdall M. Exploring what employers seek when hiring occupational therapists. *Canadian Journal of Occupational Therapy*. 2004;71(4):223-229.
7. Associates HR. *Falling Short? College learning and career success*. Washington, DC2015.
8. Lowry JS, Timms J, Underwood DG. From school to work: Employer perceptions of nursing skills. *Journal for Nurses in Professional Development*. 2000;16(2):80-85.
9. Arnold B, Gansneder B, Van Lunen B, Szczerba J, Mattacola C, Perrin D. Importance of selected athletic trainer employment characteristics in collegiate, sports medicine clinic, and high school settings. *Journal of Athletic Training*. 1998;33(3):254.
10. Association NAT. *Athletic Training Educational Competencies*. 5th ed. Dallas, TX2011.
11. Coll R, Zegwaard K. Perceptions of desirable graduate competencies for science and technology new graduates. *Research in Science & Technological Education*. 2006;24(1):29-58.
12. Kahanov L, Andrews L. A survey of athletic training employers' hiring criteria. *Journal of Athletic Training*. 2001;36(4):408.
13. Gaedeke RM, Tootelian DH, Schaffer BF. Employers want motivated communicators for entry-level marketing positions: Survey. *Marketing News*. 1983;17(5):1.
14. Pitney WA. The professional socialization of certified athletic trainers in high school settings: a grounded theory investigation. *Journal of athletic training*. 2002;37(3):286.
15. Mills J, Lennon D, Francis K. Contributing to a culture of learning: a mentor development and support project for Australian rural nurses. *International Journal of Nursing Practice*. 2007;13(6):393-396.
16. Mazerolle SM, Walker SE, Thrasher AB. Exploring the transition to practice for the newly credentialed athletic trainer: a programmatic view. *Journal of athletic training*. 2015;50(10):1042-1053.
17. Mazerolle SM, Clines S, Eason CM, Pitney WA. Perceptions of support networks during the graduate-assistant athletic trainer experience. *Journal of athletic training*. 2015;50(12):1256-1266.
18. Marcinkus Murphy W. Reverse mentoring at work: Fostering cross-generational learning and developing millennial leaders. *Human Resource Management*. 2012;51(4):549-573.
19. Earle V, Myrick F, Yonge O. Preceptorship in the intergenerational context: an integrative review of the literature. *Nurse education today*. 2011;31(1):82-87.
20. Thompson JA. Why work in perioperative nursing? Baby Boomers and Generation Xers tell all. *AORN journal*. 2007;86(4):564-587.
21. Newton FB. The new student. *About Campus*. 2000;5(5):8-15.
22. Association NAT. *Professional Education in Athletic Training* 2013.
23. Greenberger E, Sørensen AB. Toward a concept of psychosocial maturity. *Journal of Youth and Adolescence*. 1974;3(4):329-358.
24. Phillips C, Kenny A, Esterman A, Smith C. A secondary data analysis examining the needs of graduate nurses in their transition to a new role. *Nurse education in practice*. 2014;14(2):106-111.