

Characteristics of Athletic Training Students That Preceptors Find Desirable

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Context: Athletic training students acquire clinical hours under the direct supervision of athletic training preceptors.

Objective: The purpose of this project was to explore what characteristics preceptors desire in their athletic training students.

Design and Setting: Online survey instrument.

Patients or Other Participants: A total of 286 certified athletic trainers (128 male, 158 female; average years experience 10.58 ± 8.48). Participants were required to be current preceptors and have 1 or more years of preceptor experience.

Main Outcome Measure(s): An instrument of 21 questions, including 7 demographics, 13 Likert-scale (1 = *not important*; 10 = *strongly important*), and 1 rank order item was developed. Validity of the instrument was established by a review of experts. An analysis of internal consistency revealed an α of .834. Data was analyzed with SPSS (version 20.0; IBM Inc, Chicago, IL). Basic descriptive statistics were calculated, and an analysis of variance was conducted to determine differences.

Results: Top 3 characteristics seen amongst all settings were initiative (mean = 9.091 ± 1.166), communication skills (mean = 8.769 ± 1.241), and intelligence (mean = 8.723 ± 1.247). Gender differences were observed in 4 of the 13 characteristics.

Conclusions: Findings demonstrated initiative, communication skills, and intelligence to be perceived as the most important athletic training student characteristics. These findings differ with previous literature and the preliminary focus group findings, where emotional intelligence and communication skills were reported to be of greater importance.

Key Words: Clinical education, online survey, athletic trainer opinions

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Characteristics of Athletic Training Students That Preceptors Find Desirable

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Extensive amounts of clinical experience are required of athletic training students as they matriculate through an education program. The 2012 Commission on Accreditation of Athletic Training Education Standards¹ require direct supervision of clinical experiences. While there is extensive research into what clinical site and preceptor characteristics are desired by a student,²⁻⁷ very little is known about what student characteristics are desired by a preceptor.^{8,9}

Athletic training students perceive that 53% of their professional development comes from clinical experiences.⁴ Clinical preceptors in athletic training may or may not have a formal education in clinical instruction and are likely selected based upon their clinical abilities and not their teaching abilities.¹⁰ When placing students in clinical experiences, it is important to consider the clinical site as well as the preceptor.¹¹⁻¹³ An alternative perspective of what a preceptor considers important is often overlooked and is poorly understood. Placing a student that has the right fit or is a good match with a preceptor is often the only criteria.⁸ Poor placements of students require time and effort to mediate and possible interventions with the student and preceptor.

The purpose of this project was to determine what student characteristics are desired by clinical preceptors. Understanding this dynamic will help program administrators that are tasked with selection and pairing of students with preceptors.

METHODS

In order to capture the characteristics that a preceptor desires in a student under their supervision, we conducted a literature review and a focus group interview. When characteristics were found in the literature^{2,5-7,14} that overlapped with the focus group results, they were deemed important enough to include in the survey instrument. From the literature and focus group, we settled on the following 13 characteristics as dependent variables with operational definitions in no particular order:

Analytical: Demonstrating a tendency to be inquisitive about unfamiliar concepts and reducing complex problems into smaller elements in order to arrive at a solution.

Intelligence: The ability to reason, plan, solve problems, think abstractly, and comprehend complex ideas.

Actively Engaged: Making an intellectual effort to make oneself available for every potential learning possibility.

Initiative: A willingness to perform tasks appropriately without the need to be repetitively prompted.

Emotional Intelligence: The ability to identify, use, understand, and manage emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges, and defuse conflict.

Self-Confidence: The belief in one's abilities to accomplish a goal and/or task and stand by one's decision even in times of conflict.

Empathy: The ability to accurately perceive and understand the emotional state of others, by means of putting yourself

in another's shoes and/or relying on a previous personal experience.

Congruent Values: Possessing the same morals, values, and fundamental beliefs of another.

Open Minded: The ability to consider and/or listen to the ideas of others in a nondiscerning way and a willingness to accept others' points of view even if not fully agreeing with them.

Communication Skills: The ability to effectively convey information through verbal or nonverbal messages, building effective working relationships, interacting with peers and professionals, active listening, and conflict resolution.

Maturity: Remaining objective when your own emotions may cause personal bias, refraining from selfish impulses, and willingness to forsake immediate gratification in order to achieve future goals.

Professional Experience: The degree of observation and exposure to the practice of athletic training that may be recalled to in future situations.

Sociable: Demonstrating a willingness to engage in conversation and/or activities with others, opposed to being reserved or timid in the company of others.

Online survey participants were asked to rate the importance of each characteristic on a Likert-scale of 1 to 10 (1 = *not important*, 5 = *neutral*, 10 = *strongly important*). Seven demographics used as independent variables were gender, age (range), National Athletic Trainers' Association (NATA) district, years as a preceptor, years as an athletic trainer, current employment setting, and preceptor setting. Employment and preceptor settings were copied from the options used by the Board of Certification as they represent the breadth of employment and practice settings. The preceptor desire (PD) instrument was developed online utilizing Qualtrics Research Suite (Qualtrics LLC, Provo, UT). A draft of the PD instrument was distributed to a panel of 3 experts for validity review. Each expert was well versed in instrument development and survey research. They were asked to provide feedback about the content, wording, and general flow of the instrument. Minor modifications in wording were made based upon their feedback. An analysis of internal consistency revealed a Cronbach α of .834.

Basic descriptive statistics were calculated for each of the independent and dependent variables. A 1-way analysis of variance was conducted to determine any significant differences with the 13 preferred characteristics as dependent variables and the 7 demographics as the independent variables. An a priori significance level was established at .05. No post hoc testing was used.

RESULTS

Online survey participants ($n = 262$), described in Tables 1 and 2, were majority female ($n = 144$) with a majority in the age range of 26 to 35 years ($n = 120$). The participants were spread across the 10 districts of the NATA with the majority in districts 4 ($n = 58$) and 5 ($n = 57$). The majority of participants reported employment in the college/university setting ($n =$

Table 1. Select Demographics of Participants (n = 262)

Variable	No. (%)
Gender	
Male	118 (45)
Female	144 (55)
Age range, y	
18–25	49 (19)
26–35	120 (46)
36–45	59 (23)
46–55	26 (10)
56+	8 (3)
NATA district	
1	16 (6)
2	36 (14)
3	11 (4)
4	58 (22)
5	57 (22)
6	5 (2)
7	12 (5)
8	21 (8)
9	31 (12)
10	15 (6)
Current employment setting	
College/university	165 (64)
Secondary school	78 (29)
Clinic	31 (12)
Hospital	14 (5)
Professional sports	4 (2)
Industrial/corporate	2 (1)
Preceptorship setting	
College/university	190 (NA)
Secondary school	112 (NA)
Clinic	47 (NA)
Hospital	7 (NA)
Professional sports	9 (NA)
Industrial/corporate	4 (NA)
Health/fitness/sports club	4 (NA)
Physician office	1 (NA)

Note: Current employment setting and preceptorship setting allowed for multiple responses per participant.

Abbreviations: NATA, National Athletic Trainers' Association; NA, not applicable.

165). The preceptorship setting allowed individuals to select more than 1 option with the majority of selections being college/university (n = 190).

Averages for the 13 preferred characteristics, presented in Table 3, ranged from a low of 5.199 ± 2.289 (congruent values) to a high of 9.091 ± 1.166 (initiative). The analysis of variance revealed 4 significant differences associated with the gender of the preceptor. Table 4 illustrates that female preceptors rated emotional intelligence ($F_{1,285} = 4.393$; $P = .037$), actively engaged ($F_{1,285} = 4.865$; $P = .028$), open minded ($F_{1,285} = 9.557$; $P = .002$), and maturity ($F_{1,285} = 7.212$; $P = .008$) higher than male preceptors. There were no other significant differences based upon the remaining independent variables.

Table 2. Average Experience of Participants

Variable	Mean \pm SD
Years as an athletic trainer	10.582 \pm 8.481
Years as a preceptor	6.934 \pm 6.424

DISCUSSION

Gender differences in ratings of importance were found in 4 of the 13 characteristics. We would suggest that the differences found in our study could be attributed to a difference in gender stereotypes and roles/perspectives. It has been proposed that stereotypes of gender roles are based upon a kernel of truth.¹⁵ The authors suggest that men are more agentic (self-assertive and motivated to master), while women are more communal (selfless and concerned with others).¹⁵ We would suggest that the emotional intelligence, open minded, and maturity characteristics are more communal in nature. This does not support our finding with the actively engaged characteristic that could be categorized as more agentic in nature. Researchers found that female physicians scored higher on the Jefferson Scale of Physician Empathy than their male counterparts.¹⁶ Empathy is related to emotional intelligence and the ability to manage emotions. Researchers proposed that men preferred problem-based coping mechanisms, while women preferred emotion-focused coping mechanisms.¹⁷ The development of coping mechanisms impacts how we view situations and can impact our perspectives, leading us to believe that emotional intelligence, open minded, and maturity characteristics are more emotion-focused and would be preferred by women.

The characteristics that students want in a clinical site and preceptor are well established.^{2–4,6} According to Curtis et al.,² students reported mentoring and modeling behaviors to be helpful and desired characteristics of a preceptor. As reported by Laurent and Weidner,⁴ students and preceptors agreed that modeling behaviors was the most helpful characteristic displayed by a preceptor. Our findings suggest that preceptors value students that are actively engaged. This is similar to a preceptor that mentors and models behaviors by being actively engaged in the student-preceptor relationship. Researchers studied opinions about important preceptor characteristics grouped into categories from the perspective of

Table 3. Descriptive Statistics for Desired Characteristics

Characteristic	Mean \pm SD
Analytic	8.363 \pm 1.271
Intelligence	8.723 \pm 1.247
Actively engaged	8.674 \pm 1.377
Initiative	9.091 \pm 1.166
Emotional intelligence	8.126 \pm 1.433
Self-confidence	8.377 \pm 1.541
Empathy	7.643 \pm 1.711
Congruent values	5.199 \pm 2.289
Open minded	8.251 \pm 1.453
Communication skills	8.769 \pm 1.241
Maturity	8.367 \pm 1.432
Professional experience	7.639 \pm 1.996
Sociable	7.581 \pm 1.641

Table 4. Selected Preferred Characteristics by Gender

Characteristic	F Value	Significance	Male Average	Female Average
Emotional intelligence	4.393	0.037	7.929 ± 1.506	8.285 ± 1.355
Actively engaged	4.865	0.028	8.476 ± 1.469	8.835 ± 1.281
Open minded	9.557	0.002	7.961 ± 1.564	8.487 ± 1.315
Maturity	7.212	0.008	8.117 ± 1.519	8.569 ± 1.327

program directors and clinical instructors.³ The lowest-rated categories were personal characteristics such as enthusiasm in teaching and displays a sense of humor. This is similar to our findings where personal characteristics such as congruent values were rated lowest. Schultz et al⁶ studied what preceptor characteristics were desired by medical students and residents. They noted that enthusiasm for teaching, provides feedback, delegates responsibility, and discusses evaluation and treatment reasoning were valued by almost all learners. The enthusiasm for teaching characteristic differs from what Lauber et al³ reported and from what our results suggest.

The perspective of the preceptor has been overlooked in athletic training with no studies having been found to date. While interviewing nursing preceptors, Lyon and Peach⁸ found 4 major themes: preceptor beliefs and values, school-preceptor interaction, student qualities, and practice-related barriers. For student qualities, the most often cited theme was previous experience where more advanced students could be incorporated into their clinical practices without the same effort for a beginning student. This finding differs from our study in that professional experience was rated in the bottom quarter of the 13 characteristics for perceived importance. While not directly related to our study, Kollisch et al⁹ studied physician preceptors' motivations for serving in the preceptor role. They found that intrinsic motivators, such as giving back to the profession, outweighed extrinsic motivators. Tasking a clinical preceptor with supervision of a student can often lead to role strain.¹⁸ Making the student-preceptor relationship work can take time and effort by not only the student and preceptor but the academic faculty as well.¹⁹

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Our results are limited by the survey methodology used to collect data and our sample of convenience. Issues such as social desirability, the inherent subjectivity of self-reporting systems, and population size inequality can limit the generalizability of our findings. For qualitative-related data such as this project, a focused interview methodology might yield more reliable data. A purposeful sample could lead to more generalizations about the population as a whole. Some of the comparison studies are well over 10 years old, and generational issues may have changed opinions. Follow-up studies to confirm or refute previous findings with the current generation of students would be helpful. Further study could look at the gender differences we discovered in rating the desired characteristics.

CONCLUSIONS

Our findings suggest that the characteristics preceptors desire in a student differ from what students desire in a preceptor. While students desire modeling behaviors, feedback, and

enthusiasm for teaching, preceptors desire initiative, communication skills, and intelligence. This dichotomy is inherent, given that each participant has a different perspective when entering the student-preceptor relationship. While their perspectives are different, both are motivated to engage in a learning opportunity. It is our hope that education program faculty, preceptors, and students will review our findings and consider them when planning for and engaging in clinical experiences. Having an appreciation or understanding for what others desire or expect can lead to more rewarding experiences. Creating quality clinical experiences is a mixture of art and a science. While students must obtain certain experiences as per accreditation (science), balancing personalities and expectations (art) is a challenge. Our findings illustrate 1 more dimension of the art in clinical experiences.

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