

High School Influences on the Selection of Athletic Training as a Career

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Context: Research suggests internships, mentorship, and specialized school programs positively influence career selection; however, little data exists specific to athletic training. **Objective:** We identified high school (HS) experiences influencing career choice in college athletic training students (ATS). **Design:** Our survey included 35 Likert-type close-ended questions, which were reviewed by a panel of faculty and peers to establish content and construct validity. **Setting:** Participants completed an online questionnaire at their convenience. **Participants:** 217 college ATS (153 female, 64 male) from a random selection of accredited programs on the east coast. We excluded minors, freshmen, and undecided majors from the study. Informed consent was implied by proceeding to the questionnaire. **Data Collection and Analysis:** We used descriptive statistics to analyze the data collected via a secure website. **Results:** Mentors were most influential in the decision of career path (62.4%; $n=131/210$) with 85.2% ($n=138/162$) reporting mentors were readily available to answer questions regarding career options and 53.1% ($n=86/162$) counseled them regarding HS electives. Of participants involved in an internship (41.0%; $n=86/210$), most developed such opportunities independently (66.3%; $n=57/86$). Respondents who attended traditional HS suggested providing diverse electives (71.9%; $n=133/185$), additional internship (53.5%; $n=99/185$), and mentorship (33.0%; $n=61/185$) opportunities to effectively educate students regarding career options. **Conclusions:** College ATS that gained internship experience during HS report the opportunity positively influenced their career selection. Mentors support HS students by offering insight and expertise in guiding students' career choices. Participants suggested HS afford diverse electives with internship and mentorship opportunities to positively influence interested students towards pursuing a career in athletic training. **Key Words:** career choice, education, mentorship

Allied health professions constantly strive to improve recruitment efforts to increase the number of students enrolling in allied health profession education programs.¹ One proposed way to positively impact the shortage of allied health professionals is to effectively promote health careers to high school students.² Research suggests high school students have poor knowledge of health care professions and the opportunities available to them.¹ Some methods of increasing student awareness of allied health professions include brochures, college and career fairs, school programs, mentorship, internship opportunities, magazines, and the media.¹⁻³ Promotional efforts of interest in this investigation are mentorship, internships, and specialized school programs (SSP).

A 2001 study distributed questionnaires to high school career counselors to identify perceived effective promotional activities.² The most effective efforts include health career days, visits by local practicing health professionals, and health career site visits.² These efforts can be categorized as interactions with health care professionals and depending on the level of interaction, a form of mentorship.²

Mentorship is a key component of informing and educating high school students on career options.³ Mentors in the health profession are a support system by providing insight,

guidance, and expertise on career options.^{3,4} Many mentors may also volunteer to be guest speakers in classes or allow students to observe them in the clinical setting.

Incorporating experiential learning (internships) into the mentorship experience allows students to observe health care professionals and gain advanced knowledge and recognition of skills.⁴ Students gain experience in the clinical setting for community service hours, networking opportunities and resume builders for future endeavors. These students may have a clinical and educational advantage when entering college.

Another method of increasing public knowledge and improving perceptions associated with allied health professions are SSPs such as enrichment programs, magnet programs, and academies. Such programs offer multiple classes or electives concentrating on various aspects of a desired career.⁵ SSPs have been one of the most effective methods of facilitating student growth and progression into the allied health profession due to the incorporation of mentorship and focused learning.¹

The combination of mentorship and specialization emphasizes academic and clinical experiences, similar to many allied health curricula within accredited education programs. Students obtain basic knowledge and clinical skills of the profession through coursework and clinical residencies and mentorship by assigned health care professionals. In the high school environment, clinical experiences correspond to mentorship and affiliations in which students observe and assist various health care professionals including athletic trainers. Research suggests mentorship strongly influences students' perceptions of a profession and their decision to pursue that profession.³ Students with allied health mentors may make better informed decisions and have clear perceptions regarding career options.³

Through SSPs, students gain experience in several activities consistent with the profession of interest and academic curriculum. Course work ranges from the basic sciences to specific athletic training courses such as injury prevention or general medical conditions. SSPs expose students to more demanding college courses,^{6,7} and utilize problem-based learning which potentially improves standardized test scores (such as SAT or ATC scores).⁸ Students completing the program may be eligible for additional scholarships having built a strong academic and extra-curricular portfolio increasing their competitive edge in the college application process.³ SSPs are beneficial in other professions and can be hypothesized to be beneficial in athletic training career selection.

When students specialize, they refine their career options and take more career specific coursework, which will benefit them in college. SSPs foster discussion and stimulate thought provoking questions regarding professional aspirations. SSPs expose students to college-preparatory coursework and may provide the opportunity to attend college courses for dual credit toward graduation requirements. Health science specialization programs in the high school system benefit the allied health community by providing exposure to a more captive and influential audience. The purpose of this investigation was to describe the influences on an athletic training students' career path while in high school. To accomplish this goal, we observed the influence of internships, mentorship experience and SSPs.

Methods

Research Design

We utilized a survey design implemented via electronic questionnaire. Our questionnaire included 35 Likert-type close-ended questions. A panel of faculty and peers established content and construct validity including internal consistency of the survey and evaluated ease of website

navigation. We analyzed the data to identify the response percentages for the indicated sample. We sought to describe the influence three promotional efforts had on athletic training students while in high school by observing the influence of internships, mentorship experience and SSP.

We attempted to answer the following research question: (a) What influences allied health majors in their career path? To answer this research question, we identified three components of particular interest: (b) Are internships influential in a student's decision on a career path? (c) Are mentors influential in a student's decision on a career path? (d) Are SSPs influential in a student's decision on a career path?

Participants

We used randomized criterion sampling to solicit potential participants. We identified accredited athletic training education programs via the National Athletic Training Association website (www.nata.org). We compiled a list of accredited programs from the eastern United States, defined as states east of the Mississippi River. States included in the study had at least five accredited programs. We randomly selected ten states by pulling their names out of a box. We included all programs from the selected states in the study. Our target sample size was 200 participants. We excluded minors, college freshmen and undecided majors because of their potential to select a program other than athletic training.

Instruments

We modified a questionnaire used to evaluate student recruitment in allied health education programs.¹ The questionnaire was distributed and collected data with an electronic questionnaire via a secure website (www.surveymonkey.com). The survey entitled "Influences on Career Selection Survey" (ICSS) included 32 Likert-type questions. We divided the ICSS into 6 sections: (1) Demographics, (2) General influences on career choice, (3) Influence of internships, (4) Influence of mentorship, (5) Influence of school programs, and (6) Influences in a comprehensive high school. The software permitted only one answer per question, as needed. The software automatically skipped questions based on previous responses, progressing respondents to the next applicable question. To increase compliance and assure confidentiality, all respondents were anonymous.

Procedures

We solicited participation by contacting undergraduate program directors via email. Each program director received an IRB approved email cover letter that included a hyperlink to the survey which they forwarded to their students. Informed consent was implied if students proceeded to the survey. To further improve response rates, we sent a follow-up email to program directors 2 weeks later. The survey took respondents 10-15 minutes to complete.

Pilot Testing. We established content and construct validity and internal consistency of the instrument through pilot testing. We distributed the questionnaire to a panel of faculty and professional peers to evaluate ease of website navigation and to thoroughly analyze each question. The panel also ensured that each survey question pertained to the research question. Following revisions, we redistributed the instrument to faculty and peers for final analysis.

Statistical Analysis

We assigned numeric codes to responses and used statistics to describe central tendency, (frequency, mode, mean) to analyze the data.

Results

From the universities meeting the inclusionary criteria, 230 participants completed the online questionnaire. We eliminated 13 participants because they did not meet the inclusionary

criteria, resulting in 217 useable questionnaires.

Demographics

Two hundred seventeen participants (70.5%, n= 153/217 females, 29.5%, n= 64/217 males; 185 Caucasian, 10 African American, 13 Asian, 8 Latino, and 1 other) completed the online questionnaire.

General influences on career choice

The majority of participants, 86.5% (n=186/215) had career aspirations prior to college admittance. Over eighty-two percent (n=154/186) of those participants were still pursuing their initial career path at the time of the survey. Some of the major influences on career selection include mentors or the observation of a professional (62.4%; n=131/210), a family/friend (40.0%; n=84/210), and SSPs (22.4%, n= 47/210).

Influence of internships

While only 41.0% (n=86/210) of participants were involved in an internship 57.5% (n=50/87) indicated such opportunities were available through their high school and 66.3% (n=57/86) indicated they researched such opportunities on their own time. The majority of participants (89.4%; n=76/85) agreed their internship experience had a positive influence on their career path.

Influence of mentorship

Mentors were most influential in a students' decision on a career path (62.4%; n=131/210), specifically mentorship by a health professional in the same field of study as the participant (32.4%; n= 67/207). The majority of participants (78.9%; n=127/161) indicated that their mentor positively influenced their career path. The majority of participants agreed their mentor was readily available to answer questions regarding career options (85.2%; n=138/162) and educated them on high school course electives which would help them accomplish their career goal (53.1%; n=86/162).

High school experience

While only 9.3% (n=19/204) of participants attended a SSP, 83.3% (n=15/18) of these participants reported the program positively influenced their career path. Participants that attended a traditional high school indicated more diverse electives (71.8%; n=133/185), internship opportunities (53.5%; n=99/185), and increased mentorship exposure (33.0%; n=61/185) should be made available to better inform students of career options. Thirty-nine percent of participants (n= 79/202) irrespective of the type of high school attended indicated they took approximately 1-5 field trips to various health profession environments. The most influential coursework on career decisions of students were Health & Fitness (46.0%; n=93/202), Biology (38.6%; n=78/202) and Athletic Injuries (37.6%; n=76/202).

Conclusion

Although previous research suggests high school students have poor knowledge of health professions,⁴ our results suggest students have some level of exposure to career options in health. The medical and nursing professions are in support of exposing high school students to career options as this increases awareness and selection of careers in the health professions.^{1,4,6,12} This investigation identified effective methods of influencing high school students to pursue the profession of athletic training. While no research exists regarding such efforts in the athletic training profession, current data from other professions suggests that mentorship, internships, and SSP are effective promotional efforts.

We identified the need for increased recruitment efforts targeting minority students as

there was a disproportionate representation of minorities in our study. Several recruitment tactics have been implemented to decrease the disparity, including increased mentorship by minority professionals, the selection of qualified minority students to participate in internship opportunities and the creation of SSPs designed to incorporate, mentorship, internship and academic excellence among minority students.^{16,21} Minority Athletic Trainers could guest lecture high school course lectures, providing information as to their personal influences, personal experiences, educational path, and employment setting to name a few. The minority Athletic Trainer could also volunteer to mentor prospective students if he/she is not employed at the high school.

Mentorship Experiences

Our research indicated that mentoring experiences positively influenced the career choice of ATs. Mentorship is identified as a key component of informing and educating high school students about their career options by offering insight and expertise in guiding students' career choices.^{3,4} Certified Athletic Trainers (AT) working in high schools may be the initial source of contact students have with health professionals, therefore, they are accessible to mentor students interested in the profession. ATs may also serve as mentors for interested ATs as they may be more closely linked in age and possibly interests and values. Both the AT and ATS can mentor students in their career search by sharing personal experiences and developing a professional personal relationship with the interested student.

The AT and/or ATS can mentor students on the importance of effective communication in the healthcare setting through role play and basic conversation. When working in the high school environment, it is necessary for the AT to communicate effectively with the diverse personalities of high school faculty, students, coaches, parents and physicians.

Internship Experiences

Of the participants involved in an internship, the majority found the experience positively influenced their career path. Internship experiences provide a different learning style for students transitioning from learning cognitive tasks to motor tasks. The ability to adapt to this change in learning style greatly improves the students learning potential by improving critical and reflective thinking skills, and hands-on experience.²³ Relative to athletic training, interested students may intern with the AT employed by their school or through affiliations with nearby schools. The increased presence of ATs in the high school setting^{17,18} may increase student interest in the profession and internship opportunities.

To maximize the internship experience, the supervising AT may educate students on basic first aid, taping techniques, and initial treatment techniques of minor athletic injuries. Hands-on experience caters to tactile and visual learners and provides an opportunity for students to familiarize themselves with the demands of the profession.¹⁴ Interested students may also create projects assigned by the AT such as posters on prevention and rehabilitation, which not only educate the students but also the athletes. As a result of the internship experience participants were able to identify aspects of the profession which attracted or deterred them from pursuing the profession of interest.

Specialized School Programs

The application of knowledge obtained in the classroom and during internship and mentorship experiences to real-life situations may improve students' understanding of previously learned material.¹⁵ SSPs have successfully incorporated this concept into their curriculum.¹ Such programs have been identified as one of the most effective methods of facilitating student

growth and progression into health professions.¹ Although the literature supports the utilization of SSPs to increase student knowledge of health professions, we concluded the availability of more diverse electives as opposed to the type of school program greatly influenced a student's decision on a career choice. Although not involved in a SSP, the majority of participants were exposed to the athletic training profession through elective courses related to the profession. Providing more diverse electives, for example, Athletic Injuries or Health and Fitness, presents opportunities for ATs to interact with students in the classroom setting, in addition to the clinical setting, thereby increasing exposure to potentially interested students.

The athletic training profession should pursue more innovative strategies similar to or in conjunction with those implemented by the medical and nursing professions. ATs working in high schools may mentor prospective students via teaching courses at their school, guest lecturing, or organizing open houses/career fairs on collegiate campuses. Although some ATs may be actively engaged in mentorship, internship and SSPs, more involvement is needed. For example, athletic training professionals and educators could work collaboratively to develop and offer summer enrichment programs, implement academy programs for students to attend throughout the school year, or host career fairs and information sessions with nearby high schools, to name a few. Student recruitment research in allied health reported a majority of students decided to pursue a health career at an early age,¹ substantiating the need for the athletic training profession to target this population.

References

1. Baldwin A, Agho AO. Student Recruitment in Allied Health Educational Programs: The Importance of Initial Source of Contact. *J Allied Health*. 2003; 32(2): 65-70.
2. Alexander C, Fraser J. The Promotion of Health Careers to High School Students in the New England Health Area: The Views of High School Careers Advisors. *Aust J Rural Health*. 2001; 9: 145-149.
3. Bumgarner SD, Means BH, Ford MJ. Building Bridges from High School to Healthcare Professional. *J Nurses Staff Devt*. 2003; 19(1): 18-22.
4. Marcelin GE, Goldman L, Spivey WL, Eichel JD, Kaufman F, Fleischman AR. The Junior Fellows Program: Motivating Urban Youth Toward Careers in Health, Science, and Medicine. *J Urban Health*. 2004; 81(3): 516-523.
5. Nessel PA. Law Magnet Programs. *ERIC Digest*. 1996: 1-7.
6. Hadderman M. Trends and Issues: Magnet Schools. *ERIC Clearinghouse on Educational Management*. 2002; 1-7.
7. Glazer H, Parker HJ, Rasberry JL, Buentello J, DeVaney A, Goodman MS, Hucks LH, Lee C, Chan F. Perceived Prestige and Health Careers Recruitment. *J Healthc Educ Train*. 1994; 8(3): 13- 17.
8. Soto-Greene M, Wright L, Gona OD, Feldman LA. Minority Enrichment Programs at the New Jersey Medical School: 26 Years in Review. *Acad Med*. 1999; 74(7): 386-389.
9. Hausman CS, Goldring EB. School Community in Different Magnet Structures. *Sch Eff Sch Improv*. 2000; 11(1): 80 -102.
10. Shannon DM, Bradshaw CC. A Comparison of Response Rate, Response Time, and Costs of Mail and Electronic Surveys. *JEXPE*. 2002; 70(2): 179-192.
11. Schaeffer DR, Dillman DA. Development of Standard E-Mail Methodology: Results on an Experiment. *POQ*. 1998; 62(3): 378-397.

12. Fincher RM, Sykes- Brown W, Allen-Noble R. Health Science Learning Academy: A Successful “Pipeline” Educational Program for High School Students. *Acad Med.* 2002; 77(7): 737-738.