

Perceived Skills and Abilities Required by Athletic Trainers in Hospital and Clinical Management Positions: A Delphi Study

Chadron B. Hazelbaker, PhD

Department of Physical Education, Health, and Recreation, Eastern Washington University, Cheney

Context: Athletic training has expanded from traditional sport-team settings to varied settings involving active populations. Athletic trainers also use their education and abilities in administration to take on roles of management in hospitals and health care clinics.

Objective: To begin to explore the knowledge, skills, and abilities needed in the emerging practice setting of health care management.

Design: Delphi study.

Setting: Directed surveys.

Patients or Other Participants: Eight athletic trainers working as hospital and health care clinic managers in varied geographic settings.

Data Collection and Analysis: Three rounds of directed surveys were used and included (1) a series of demographic

questions and 1 focused, open-ended question, (2) 32 statements scored on a 6-point Likert-type scale with no neutral statement, and (3) 10 statements ranked in order of importance for the athletic trainer working as a health care manager.

Results: I grouped the results into 2 categories: leadership skills and management tools.

Conclusions: According to participants, effective health care managers need a strong understanding of business and management tools along with more interpersonal skills in communication and leadership. The results are consistent with the literature and may be applied in athletic training education programs and by athletic trainers seeking health care management positions.

Key Words: leadership, knowledge, managers

Key Points

- Relational leadership, emphasizing transformational leadership, was important in health care organizations.
- Participants ranked as important the ideas that a health care manager needs to be able to effectively manage and lead people, to understand the organizational culture, to be able to build relationships, and to be skilled in conflict resolution.
- Business-based and administrative-based knowledge, skills, and abilities were viewed as essential.
- Athletic trainers who seek health care management roles need strong skills in business plan development, critical thinking and problem solving, organization, time management, and multitasking as they prioritize job tasks.
- Athletic trainers need leadership and managerial abilities to relate and practically apply skills to accomplish their work.

Athletic training education and the fields in which athletic trainers are employed have evolved over the past 60 years. Although athletic trainers have worked with active people outside of a purely competitive athletic environment since the beginning of the profession, the number of athletic trainers working in clinics, industry, hospitals, and other areas has grown.¹

The maturation of the educational process and the expanding employment opportunities for athletic trainers present growing pains. Discussions about the educational needs and appropriate work settings for entry-level athletic trainers have occurred anecdotally and in the professional literature. Athletic trainers possess a body of knowledge, have emerged as professional authorities, and have gained community recognition as part of an allied health care profession.² Although these are core competencies, some professional discussion has focused on whether newly graduated athletic trainers understand how their skills can be used in various fields of employment. These concerns

about whether athletic trainers have received the education needed for employment as health care managers and whether they know how to apply the skills they have learned may be partly due to the lack of understanding of what knowledge, skills, and abilities (KSAs) are needed to be an effective manager in certain health care professions.³ One issue is the lack of managerial and leadership training for clinicians in health care professions.⁴ Educational programs are weighted toward technical skills of care rather than management and leadership.

The number of athletic trainers working in clinical and hospital management positions has increased over the past 10 years,¹ likely due to the leadership and management education that athletic trainers receive. Leadership and management are part of the educational competencies, and the competencies along with professional experience may contribute to athletic trainers being hired for health care management positions. These positions require a unique skill set. Health care organizations require “management

talent sophisticated enough to match the increased complexity of the health care environment.”^{3(p360)} Vachon^{4(p52)} described the health care manager as having “one of the most challenging positions in any industry. You control neither the pricing of your services nor the customers you serve.”

The literature clusters the KSAs needed in organization and administration into 2 categories: leadership and management. Building on earlier work, Nellis^{5(p328)} described the differences between the areas: “leadership is an influence relationship, while management is an authority relationship.” Leadership KSAs focus on relationship skills and on knowing one’s biases and strengths and understanding how stress and relationships affect decision-making abilities. Other authors have pointed to emotional intelligence (EQ) as an important part of leadership.⁶ Professionals with high EQ have self-awareness, self-management, social awareness, and relationship management. The ideas of management as presented in EQ appear to be built on interpersonal relationships, which tie into Nellis’⁵ definition of *leadership*. O’Connor and Kotze^{7(p176)} presented the idea that effective leader clinicians have personal mastery achieved through “self-reflection, a sense of curiosity and inquiry, a connectedness, and ability to work with others.”

In the literature, the terms *management* and *leadership* are used differently by various authors, so no clear definitions exist. In contrast to discussions about leadership, those about management tend to be based on technical understandings of best practices within settings, including having a firm understanding of policies and procedures manuals, job descriptions, and how to complete evaluations. Steff³ presented 5 domains of health care management as created by the Healthcare Leadership Alliance: communication and relationship management, professionalism, leadership, knowledge of the health care system, and business skills and knowledge. These domains are needed by everyone in the health care management profession.³

Although research has been conducted on the KSAs needed for health care managers from various professions, some may argue that athletic training professionals are unique due to their education and experience gained through training. The culture of athletic training is built on values, beliefs, and assumptions similar to those of college sports rather than the culture, beliefs, and values of the organizations with which they often are employed.⁸ Athletic training students are educated and socialized in the college setting, which may limit their professional knowledge, skills, values, and professionalism within other practice settings.⁹ However, leadership and management in any setting are key components of athletic training based on the Role Delineation Study, which showed that athletic trainers “are responsible for managing human resources to provide efficient and effective health care and educational services.”^{10(p120)} Therefore, the purpose of my nonexperimental investigation was to begin to explore the KSAs needed in the emerging practice setting of health care management.

METHODS

I used a Delphi method to examine the research question: What are the KSAs essential for an athletic trainer to have in a health care management position? The most traditional way of finding consensus in a group is to hold roundtable

discussions in which the parties present ideas and seek consensus. The Delphi technique is different from traditional methods because it involves a series of questionnaires in which the respondents reach a consensus about a topic.¹¹ The Delphi method is reflective because it gives participants “feedback of the information gathered from the group and the opportunity of individuals to modify or refine their judgments based upon their reaction to the collective views of the group.”^{12(p24)}

As a method, Delphi is seen as useful in areas of limited research.¹³ Authors of other athletic training studies have used the Delphi technique to find systematic consensus building in selection of Approved Clinical Instructors¹⁴ and to explore indicators for success on the Board of Certification examination.⁶ Weidner and Henning¹⁴ built on the earlier work of Reid¹⁵ in presenting 2 aspects of validity for Delphi studies. First, these studies appear to have a high face validity because they focus on information and reflection from a group of experts who identify the final list of relevant information. Second, when complete, these studies have concurrent validity “in that the experts themselves have both identified and agreed on the requisite standards.”^{14(p336)}

Participants

I recruited participants using purposive sampling and referral snowball sampling. In purposive sampling, participants are selected based on their expertise in a specific subject.¹¹ The research question required expertise in health care management issues and the athletic training profession. I used purposive sampling to ensure that participants met the established criteria, allowing me to determine who was and who was not an appropriate candidate for participation.¹⁶

Expertise is complex to define. Due to these complexities, an initial panel of respondents comprised individuals whom I believed had relevant practical knowledge of the issue and expertise gained through experience.^{17,18}

For purposive sampling, members of the committee for Clinical and Emerging Practices in Athletic Training were contacted initially. These athletic trainers met 2 criteria for expertise relative to the research question. First, they had self-reported and peer-reported experience working as health care managers. Athletic trainers working as health care managers constitute a growing and emerging field, but a limited number of professionals have experience in these jobs. Whereas the term *expert* is used in the Delphi literature, participants for this study were selected due to their work experience and willingness to share their perceptions. These criteria limited the study and number of possible participants. Second, given that they served on professional committees and workgroups, the participants were aware of challenges, issues, and needs that were occurring at the national level through regular meetings and work groups.

Five participants were identified in the initial round of selection. I instructed study participants to provide names of additional experts who could address the questions of the survey in a meaningful way, yielding an additional 12 contacts. The snowball-sampling method allows the researcher to identify participants who meet the predetermined criteria.¹⁹ Eight people participated in the study. Each participant self-identified as a manager in a health

care setting and reported the number of years in the job as part of the initial survey. Participants indicated informed consent through e-mail response, and the study was approved by the Human Investigations Committee of Eastern Washington University.

Data Collection and Analysis

I sent invitations to the e-mail addresses of 17 potential participants and requested their participation in the study. The initial study round was conducted via the Internet. The 8 people who replied to the initial request and completed the first survey were included and participated in the 3 rounds. Although the results of the study lack generalizability to a larger population based on 8 participants, 8 is an accepted number for Delphi research. Delphi studies have been completed with as few as 4 participants²⁰; however, Linstone and Turoff¹² recommended panels between 10 and 50.

To explore the topic in my study, 3 rounds of the directed surveys administered via e-mail were used. For the first round, data collection consisted of a survey with a series of demographic questions and 1 focused, open-ended question. The first round of a Delphi study can be focused on guided exploration designed to engage panelists in brainstorming,¹³ allowing participants to express their views and opinions.¹¹ Respondents presented statements about the KSAs they believed were essential for an athletic trainer to have in health care management.

The collected statements then were “scrubbed” to maintain confidentiality, analyzed for content, and used to create the second round of the survey. The process of scrubbing the data ensured that statements given could not be traced to a specific participant and allowed for the combination of any statements that were the same among participants.

The scrubbed statements in the first round of the survey were used to create Likert-style statements for the second round. The instrument consisted of 32 statements, and participants rated their personal agreement on a 6-point scale, with the anchors of 1 (*very strongly disagree*) and 6 (*very strongly agree*). A 6-point scale with no neutral statement forced participants to commit to a response. In survey research, this forced scale may annoy participants¹⁹; however, due to the relatively small sample, I chose the forced commitment of responses to elicit data.

After collecting the scores from the second round, the mean score for each statement was calculated, and statements with a mean greater than 5.0 (*strongly agree*) were used to create the third-round survey. Ten of the 32 statements used in round 2 scored a mean greater than 5.0. I determined that the high mean scores showed high levels of agreement on statements.

In the third round, participants were instructed to rank the statements in the order of importance for an athletic trainer working as a manager in a health care organization. Respondents ranked the statements from 1 (*most important*) to 10 (*least important*).

RESULTS

The e-mail survey identified a group of participants who had a mean age of 41.4 ± 6.8 years and a mean of 18.6 ± 6.58 years of experience as certified athletic trainers. Participants reported their experience in management of

health care organizations as 7.4 ± 2.4 years, with an average of 5.15 ± 3.0 years in their current positions.

The results of the third round are presented in the Table. The highest-ranking statement had the highest level of agreement among the participants, and the lowest-ranking statement had the lowest level of agreement. The highest-ranking statement was “A health care manager needs to be able to effectively manage and lead people” followed by “A health care manager must have a good grasp of business plan development.” Two statements tied for the third-place ranking: “A health care manager needs to have a solid understanding of business practices and culture” and “A health care manager must have the ability to critically think and prioritize job tasks.”

DISCUSSION

Leadership

Much leadership literature focuses on the relational abilities of leaders as they work within organizations. In a literature review of health care, Kutz^{21(p265)} presented leadership as the ability “to ethically influence others toward the accomplishment of goals and objectives.” At the foundation of leadership literature is a distinction between transactional (leader-centered) leadership and transformational (team-centered) leadership. The results of my study seem to hold relational leadership ideas as important in health care organizations, placing the emphasis on transformational leadership over other styles. “A health care manager needs to be able to effectively manage and lead people” was the statement that the panel of experts rated most highly as key KSAs for athletic trainers seeking management positions. Along with this statement, the ideas that a health care manager needs to understand the organizational culture, to be able to build relationships, and to be skilled in conflict resolution were demonstrated in the study rankings.

Consistency exists with these findings and the health care management literature. The Healthcare Leadership Alliance presented communication and leadership as key KSAs for effective health care executives. These KSAs are relational and address how executives interact with others.³ *Communication* was presented as the ability “to establish and maintain relationships and to facilitate constructive interactions with individuals and groups.”^{3(p364)} Kutz²² explored the connections between people skills and appropriate communication as they work in leadership. This works in tandem with correctly and appropriately relating to others and using those skills to lead. Building relationships and working to resolve conflicts are based in the ability to facilitate constructive interactions. Leadership often is identified in action but remains a difficult concept to describe.²² McKee²³ pointed to leaders as people who are out front influencing and inspiring people. In exploring leadership in athletic training, Kutz^{22(p16)} stated, “leadership tends to create the perception of credibility and often establishes or strengthens relationships” while producing change, hope, creativity, community, growth, and satisfaction in organizations. Laurent and Bradney¹⁰ compared leadership behaviors of athletic training leaders and leaders in other fields. They found that athletic trainers use similar behaviors in leadership but may exhibit transformational leadership because the people who enter the

Table. The Rank Order of the Statements Used in the Third Round of the Survey

Rank	Statement Topic	Raw Score
1	Effectively manage and lead people	12
2	Good grasp of business plan development	13
3	Understanding of business practices and culture	14
3	Ability to critically think and prioritize job tasks	14
5	Problem-solving abilities	19
6	High level of organizational skills	23
7	Ability to build relationships	29
8	Skilled in conflict resolution	31
9	Strong time-management skills	32
10	Ability to multitask	33

profession may have a personal attribute of care. Athletic trainers are part of a field that addresses service, empowerment, and interrelating, which may lend them to these leadership abilities. Transformational leadership may be a preferred style of leadership in athletic training settings because it can create order in hectic and disorganized situations.¹⁰ Athletic trainers rely on it “due to the volume of patients they serve and constituents with whom they communicate.”^{10(p123)} In the literature, transformational leadership is shown being used in athletic training because it provides meaning and challenge to the work of others, seeks input from others for visioning, and helps team members grow and achieve goals.²⁴

Given that athletic trainers communicate with many people in difficult situations, they need a high level of contextual intelligence, which was reflected in the ranking of statements about interrelational skills and the need to understand organizational culture. *Contextual intelligence* is “the ability to quickly recognize contextual variables that are inherent in a given situation and make intentional adjustment of behavior to exert influence in that context.”^{22(p15)} It is the ability to rapidly assess situations, make decisions, and act appropriately. This ties directly with EQ and strong personal understandings of emotions in leadership situations as athletic trainers face difficulties in their positions.⁶

Steff³ presented a definition of *leadership* in health care organizations that helps illustrate the blurring of lines when defining *leadership* in relation to management. This definition also helps frame the ranking from the group of expert statements in this Delphi study. Steff^{3(p364)} noted that leadership is not only the ability to bring about some intangible ideas, such as inspiration and visioning, but also the ability to “successfully manage change to attain the organization’s strategic ends and successful performance.” Without effective management skills, the relational skills may be wasted.

Management

The leadership skills of a health care manager arose as a central theme of my Delphi study, yet business-based and administrative-based KSAs also were seen as essential. Descriptions of management tend to focus on position titles and official organizational roles. McKee²³ defined *manager* as a person who plans and organizes and who controls resources. Within the study, it seems that athletic trainers who seek health care management roles need strong skills in business plan development, critical thinking and problem

solving, organization, time management, and multitasking as they prioritize job tasks. However, Kutz²² noted that whereas someone may have an official role in an organization, he or she does not necessarily have leadership competence. For the athletic trainer to succeed as a clinic manager, a level of competence appears to be needed in both leadership and management.

Knowledge of both the health care system and business is considered important for health care managers.³ As the culture of health care changes in the United States and managers face complex political forces, shrinking reimbursements, shortages of professionals, and increased regulation, “managers and leaders are expected to do more with less.”^{3(p361)} The broader health care system is complex, and understanding the structures and environment in which managers and providers function is important. Effective managers need to have financial, human resource, governance, strategic planning, information technology, marketing, risk management, and quality improvement skills in this environment.³

The leadership and management KSA balance of the ideal executive expressed by the experts in my study is seen throughout the literature. Both leadership and managerial abilities appear to be needed to relate and practically apply skills to accomplish the work.

Implications

Discussion has occurred anecdotally within the athletic training profession on the issue of athletic training education programs (ATEPs) and their abilities to produce professionals who can work in emerging athletic training settings. Educational preparation of athletic trainers has taken various forms, and with each incarnation, debate has occurred as to the importance of education for professional development.²⁵ Whereas the participants in my study entered athletic training at lower-level positions, they became health care managers after working as athletic trainers for several years. Experience matters for certain management positions. The continuing expansion of jobs in which athletic trainers work has implications for and places pressure on ATEPs.

Authors have argued the need to expand the teaching of leadership and management as competencies in ATEPs^{9,21} and have argued the benefit of using business practices to improve ATEPs as athletic trainers continue to work in the “competitive environment of higher education and allied health care.”^{25(p190)} Leadership as a competency has been shown to be important in athletic training regardless of practice setting.²¹ Leadership is expected by health care professionals, so specific leadership concepts and skills are needed in ATEPs.⁹

Many of the statements given in the first and second rounds in my study directly aligned with statements in the fifth edition of the *Athletic Training Education Competencies*.²⁶ The final round of the study listed the statements “Good grasp of a business plan” and “Understanding business practices and culture” as KSAs needed for athletic trainers working in health care management positions. These statements reflect 2 of the ATEP competencies. Healthcare Administration item 4 (HA-4) states, “Describe the conceptual components of developing and implementing a basic business plan,” and HA-2 states, “Describe the impact

of organizational structure on the daily operations of a healthcare facility” that lies within the organizational practices and culture response.²⁶ What does not appear in the final statements of this study but did appear within the first-round responses that were eliminated in the scoring of the second-round survey are connections to other stated competencies. Thirteen other competencies were identified within the eliminated statements, including HA-6 and HA-7 that address budgeting, HA-14 and HA-15 that present human resource aspects of management, and HA-17 that addresses the need to understand health care regulatory agencies.²⁶ These items are part of the current ATEP curriculum and may need to be expanded or at least focused on by students, ATEP program directors, and current athletic trainers who are seeking positions in emerging practices.

Future Research

Whereas I uncovered identifiable KSAs, some ambiguous areas need exploration to provide a better understanding of the leadership and management in athletic training, especially for athletic trainers in health care management positions. One area requiring further study is the relationship between the fifth edition of the *Athletic Training Education Competencies* and the KSAs identified as important for health care management in athletic training.

The experts included in this Delphi study came from various positions in different clinics; however, given the limitations in participant selection and the relatively low numbers of athletic trainers working under the title of health care management, the group was fairly homogeneous. Whereas this provides a strong general understanding of health care management, the topic needs to be explored further. The hands-on skills needed for chief financial officers and marketing department managers would be very different, so further study into positions may show more skills needed or at least a delineation of certain skills needed to succeed in a specialized field of health care management.^{3,10} Working relationships with diverse professional groups in a health care facility factor into leadership and relational abilities of managers. Physicians, patients, private owner groups, and rehabilitation specialists bring different professional cultures into the workplace and may have different needs, which I did not address in this study.

Research, including Delphi method research, also may be needed in other emerging practice settings in which athletic trainers are working. Whereas health care clinics offer unique experiences, other settings may require athletic trainers to implement different leadership and management KSAs to be successful.

REFERENCES

1. NATA. Member statistics. <http://www.nata.org/members1/documents/membstats/>. Accessed June 14, 2010.
2. Delforge GD, Behnke RS. The history and evolution of athletic training education in the United States. *J Athl Train*. 1999;34(1):53–61.

3. Steff ME. Common competencies for all healthcare managers: the Healthcare Leadership Alliance Model. *J Healthc Manag*. 2008;53(6):360–373.
4. Vachon M. *Six Trends for Your Next Strategy Session Agenda*. Fairfield, CT: General Electric; 2009.
5. Nellis SM. Leadership and management techniques and principles for athletic training. *J Athl Train*. 1994;29(4):328–335.
6. Naylor A. EQ versus IQ in the athletic training clinical environment. *Athl Ther Today*. 2007;12(6):39–41.
7. O’Connor N, Kotze B. “Learning Organizations”: a clinician’s primer. *Australas Psychiatry*. 2008;16(3):173–178.
8. Hudson MB, Irwin Z. Uncovering organizational culture: a necessary skill for athletic trainers. *Athl Ther Today*. 2010;15(1):4–8.
9. Kutz MR, Scialli J. Leadership content important in athletic training education with implications for allied health care. *J Allied Health*. 2008;37(4):203–213.
10. Laurent TG, Bradney DA. Leadership behaviors of athletic training leaders compared with leaders in other fields. *J Athl Train*. 2007;42(1):120–125.
11. Thomas RJ, Nelson KJ, Silverman JS. *Research Methods in Physical Activity*. 5th ed. Champaign, IL: Human Kinetics; 2005:285–289.
12. Linstone A, Turoff M. *The Delphi Method: Techniques and Applications*. Reading, MA: Addison-Wesley; 2002.
13. Iqbal S, Pison-Young L. The Delphi method. *Psychologist*. 2009;22(7):598–601.
14. Weidner TG, Henning JM. Development of standards and criteria for the selection, training, and evaluation of athletic training Approved Clinical Instructors. *J Athl Train*. 2004;39(4):335–343.
15. Reid N. The Delphi technique: its contributions to the evaluation of professional practice. In: Ellis R, ed. *Professional Competence and Quality Assurance in the Caring Professions*. New York, NY: Routledge Chapman & Hall; 1988:230–262.
16. Erickson MA, Martin M. Contributors to initial success on the National Athletic Trainers’ Association Board of Certification examination as perceived by candidate sponsors: a Delphi study. *J Athl Train*. 2000;35(2):134–138.
17. Lopolo RB, Schafer DS, Nosse LJ. Leadership, administration, management and professionalism (LAMP) in physical therapy: a Delphi study. *Phys Ther*. 2004;84(2):137–150.
18. de Meyrick J. The Delphi method and health research. *Health Educ*. 2003;103(1):7–16.
19. Fink A. *How to Conduct Surveys*. Thousand Oaks, CA: Sage; 2009.
20. Brockhoff K. The performance of forecasting groups in computer dialogue and face-to-face discussion In: Linstone HA, Turoff M, eds. *The Delphi Method: Techniques and Applications*. Reading, MA: Addison-Wesley; 1975:291–351.
21. Kutz MR. Leadership in athletic training: implications for practice and education in allied health care. *J Allied Health*. 2010;39(4):265–279.
22. Kutz MR. Leadership factors for athletic trainers. *Athl Ther Today*. 2008;13(4):15–20.
23. McKee A. *Management: A Focus on Leaders*. Saddle River, NJ: Pearson; 2012:2–54.
24. Herzog VW, Zimmerman EP. Transformational leadership and building relationships with clinical instructors. *Athl Ther Today*. 2009;14(3):39–41.
25. Peer KS, Rakich, JS. Accreditation and continuous quality improvement in athletic training education. *J Athl Train*. 2000;35(2):188–193.
26. National Athletic Trainers’ Association. *Athletic Training Education Competencies*. 5th ed. Dallas, TX: National Athletic Trainers’ Association; 2011.

Address correspondence to Chadron B. Hazelbaker, PhD, Department of Physical Education, Health, and Recreation, Eastern Washington University, 200 PEC, Cheney, WA. Address e-mail to chazelbaker@ewu.edu.