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Clinical Leadership in Athletic Training

Tyler G. Vannucci
Indiana State University, tylerv230@gmail.com

Lindsey E. Eberman
Indiana State University, lindsey.eberman@indstate.edu

Matthew J. Rivera
Indiana State University, matthew.rivera@indstate.edu

Matthew J. Drescher
Indiana State University, matthew.drescher@ndsu.edu

Justin Young
Indiana State University, jyoung85@sycamores.indstate.edu

See next page for additional authors

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Abstract

Purpose: Clinical leadership behaviors demonstrated by nurses delivering patient care are associated with improved patient outcomes and increased job satisfaction. Clinical leadership behaviors have not been studied in athletic training; therefore, the purpose of this study was to investigate athletic trainers' frequency of demonstrating these behaviors. **Method:** Participates completed an electronically distributed survey consisting of demographic variables, the Clinical Leadership Survey (CLS), and the Global Rating of Clinical Leadership Scale (GRCLS). **Results:** We found statistically significant differences between the CLS score of those in a supervisory role ($M = 65.3 \pm 5.4$) and those who are not ($M = 63.5 \pm 5.5$, mean difference $= 1.8 \pm 0.8$, $t(212) = 2.27$, $p = 0.02$). A moderate positive correlation ($r = 0.51$, $p < 0.001$) exists between an individual's CLS score and perceiving themselves as a clinical leader. A moderate positive correlation ($r = 0.59$, $p < 0.001$) exists between an individual's CLS score and believing they demonstrate leadership behaviors in clinical practice. **Conclusion:** Athletic trainers in supervisory roles report demonstrating clinical leadership behaviors more often than those who are not. A discrepancy exists between athletic trainers' reported frequency of demonstrating individual clinical leadership behaviors, their belief they are leaders, and their demonstration of leadership behaviors. The data suggest athletic trainers who are not in supervisory roles may believe, because they hold no positional authority, they are not clinical leaders. Organizations can implement strategies to promote clinical leadership in staff and improve patient outcomes.

Author Bio(s)

Tyler G. Vannucci, DAT, LAT, ATC, is a graduate of the Doctorate in Athletic Training Program at Indiana State University in Terre Haute, IN. He currently works as an athletic trainer in the secondary school setting in Pennsylvania.

Lindsey E. Eberman, PhD, LAT, ATC, is a Professor and Program Director in the Doctorate in Athletic Training program at Indiana State University in Terre Haute, IN.

Matthew J. Rivera, DAT, LAT, ATC, is an Assistant Professor and core faculty member in the Doctorate in Athletic Training program at Indiana State University in Terre Haute, IN.

Matthew J. Drescher, DAT, LAT, ATC, is a doctoral graduate assistant for the Doctorate in Athletic Training program at Indiana State University in Terre Haute, IN and is currently completing his PhD in Teaching and Learning at Indiana State University.

Justin P. Young, DAT, LAT, ATC, is a doctoral graduate assistant for the Doctorate in Athletic Training program at Indiana State University in Terre Haute, IN and is currently completing his PhD in Teaching and Learning at Indiana State University.

Kenneth E. Games, PhD, LAT, ATC, is the Acting Dean of the College of Graduate and Professional Studies at Indiana State University in Terre Haute, IN. He is also a Professor and the Director of Clinical Education in the Doctorate in Athletic Training program at Indiana State University.

Authors

Tyler G. Vannucci, Lindsey E. Eberman, Matthew J. Rivera, Matthew J. Drescher, Justin Young, and Kenneth E. Games

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Tyler G. Vannucci
Lindsey E. Eberman
Matthew J. Rivera
Matthew J. Drescher
Justin Young
Kenneth E. Games

Indiana State University

United States

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Keywords: empowerment, ownership, influence

INTRODUCTION

Leadership is an abstract concept with no universally agreed upon definition. It can be described as "the process of interactive influence that occurs when, in a given context, some people accept someone as their leader to achieve common goals.[1] In the context of healthcare, research identifies leadership as an important aspect to the growth of health professions and improving clinical outcomes and patient care.[2-6] Further, demonstrating leadership in clinical practice is associated with improved patient care.[3,5]

Leadership behaviors were characterized by Kouzes and Posner through a leadership model that encompass five practices that leaders should demonstrate to achieve goals, and Patrick integrated these practices with the four work empowerment structures of Kanter to develop a model of clinical leadership in staff nurses.[6,7] Like nurses, athletic trainers are allied health professionals that frequently interact with patients, their support system, and other healthcare providers. No previous studies have investigated athletic trainers' demonstration of clinical leadership, and knowledge of athletic trainers' demonstration of clinical leadership may serve to advance patient care.

Kouzes and Posner's Model of Leadership

Kouzes and Posner developed a theory of leadership that focuses of five leadership practices (Table 1); (1) challenging the process, (2) inspiring a shared vision, (3) enabling others to act, (4) modeling the way, and (5) encouraging the heart.[6,7] Within each of the five practices are two commitments; behaviors that describe the leadership practice. Kouzes and Posner entitled these actions The Ten Commitments of Exemplary Leadership. Kouzes and Posner developed a survey instrument to measure the five leadership practices, the Leadership Practices Inventory (LPI).[6,7] Table 1 provides a description of the five leadership practices described by Kouzes and Posner.

Table 1. The Five Leadership Practices of Kouzes and Posner's Model of Leadership

Leadership Practice	Description of Leadership Practice
Challenging the Process	An individual who challenges the process seeks and welcomes opportunity to think outside of the current system, innovate, and improve. They take risks that generate momentum towards the vision, and learn from their failures. Kouzes and Posner suggest that it is the responsibility of the leader to create a climate of experimentation that fosters risk taking by recognizing and supporting good ideas.[6]
Inspiring a Shared Vision	A leader envisions a clear and exciting vision of the future. In order to actualize the vision, the leader must inspire others to join them in their pursuit of the vision by clearly articulating the vision and the actions to get there.[6] This may be achieved by effective communication and active listening.[7]
Enabling Others to Act	The practice of enabling others to act encompasses building trusting relationships with those you collaborate with, and developing the competence of those around you so that they have the skills and confidence to meet and exceed expectations.[6] Individuals can empower those around them by providing support and sharing information and resources needed to succeed.[7]
Modeling the Way	A leader has a clear conceptualization of their values and beliefs, and is able to clearly articulate these to those around them. Further, when speaking with others a leader will identify and affirm shared values of the group. The leader then sets an example for the group by modeling the shared values of the group and reinforcing the shared values when they are not followed.[6]
Encouraging the Heart	A leader recognizes individuals for their contributions and success. Regardless of whether this recognition is formal or informal, it is important to authentically celebrate successes and contributions to create a sense of community and group identity. The recognition should be personal and personalized to the individual receiving recognition in order to authentically encourage them.[6]

Structural Empowerment

The theory of structural organizational empowerment was developed by Kanter to describe how organizational environment and structure influences employees to achieve their goals.[7,8] There are four work empowerment structures that influence employees to achieve their goals; access to information, opportunity for growth, support, and resources.[9-12] Access to these resources is determined by formal and informal power; more power equates to increased access to these structures, and higher perceived empowerment in the workplace.[7-11,13] Formal power is gained from holding a job position in which they are "visible and central to the purpose of the organization and that allow for discretion in decision making"[11,13]; in other words, a position of formal leadership authority or supervision. Informal power is gained from the relationships that are established with peers, supervisors, and others outside of the organization.[11,13]

Clinical Leadership

A clinical leader is defined as "an expert clinician involved in providing direct care, [who] influences and coordinates patients, families, and healthcare team colleagues for the purpose of integrating the care they provide to achieve positive patient outcomes".[7] As the definition suggests, a critical aspect of clinical leadership is to influence those around them to work as team to provide quality patient outcomes.

The concept of clinical leadership has been integrated with the five leadership practices of the Kouzes and Posner Model and Kanter's Model of Structural Empowerment.[7] In this model, the work environment influences a clinician's access to the four work empowerment structures, which influences the demonstration of the five leadership practices of the Kouzes and Posner Model in clinical practice.[7] Individuals who have access to information, support, resources, and opportunity are more likely to feel empowered, and more likely to provide higher quality patient care.[7,11] Previous research within the nursing profession found positive associations between individuals in formal leadership positions demonstrating Kouzes and Posner's five leadership practices and clinical staff empowerment, suggesting individuals in formal healthcare leadership roles can empower clinical staff through transformational leader practices.[7]

The Athletic Trainer's Role in Healthcare

Athletic training is recognized as an allied health profession by the American Medical Association (AMA), Health Resources Services Administration (HRSA) and the Department of Health and Human Services (HHS). Under the direction or supervision of a physician, athletic trainers are qualified to provide medical care to patients, including primary care, injury and illness prevention, wellness promotion and education, emergent care, examination and clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions.[14] Athletic trainers work in a variety of settings, including traditional athletics (secondary school, collegiate, professional), physician offices, rehabilitation clinics, public safety, and manufacturing. They develop working relationships with patients before injury occurs, and often act as a liaison between the patient's support system, other healthcare providers, and other relevant parties such as coaches or patients' supervisors. Athletic trainers often act as a facilitator in accessing and navigating the health system; as a result, it is important that athletic trainers possess the skills necessary to effectively guide patients to the best possible care that they wish to receive.

Leadership in Athletic Training

The current body of knowledge on leadership in athletic training is not as mature as that of other health professions.[4] Past studies in athletic training evaluated traits, behaviors, and leadership styles of athletic trainers, however, the majority of athletic trainers studied for leadership qualities held positions of formal leadership authority (ie. athletic training program director, head athletic trainer).[2,15,16] Recently, the concept of clinical leadership has entered the athletic training literature, with a call to all athletic trainers to demonstrate leadership in their practice.[3] To advance the knowledge of leadership within the athletic training profession, a broad study of athletic trainers is necessary to determine if clinical leadership is demonstrated by practicing athletic trainers. If practicing athletic trainers demonstrate clinical leadership, efforts can be made to empower them to advance the patient care of and influence their respective organization, the profession, and the healthcare system. Therefore, the purpose of this investigation was to survey athletic trainers to determine their self-reported clinical leadership behaviors in their practice.

METHODS

Design

We used Qualtrics (Qualtrics Inc., Provo, UT) to distribute a quantitative cross-sectional survey investigating self-reported clinical leadership behaviors in clinically practicing athletic trainers. This study was deemed exempt by the Indiana State University Institutional Review Board.

Participants

A random sample of 7000 athletic trainers was requested from the National Athletic Trainers' Association (NATA) Survey Research Service. Participants were included in this study if (1) they were in good standing with the NATA and (2) they practiced clinically at least 20 hours per week. Participants were excluded from this study if (1) they did not practice clinically at least 20 hours per week or (2) they did not practice as an athletic trainer. Participants answered screening questions at the beginning of the survey to ensure that they met inclusion and exclusion criteria before proceeding to the rest of the survey.

Instrument

For this study, the survey was formatted to Qualtrics (Qualtrics Inc., Provo, UT) so that a web-based survey distribution methods could be used. The survey consisted of four sections: informed consent, demographic information (seven items), the Clinical Leadership Survey (CLS) (15 items), and the Global Rating of Clinical Leadership Scale (GRCLS) (two items). The demographics section gathered information on participant age, gender, education level, years of athletic training experience, job setting, job title, and supervisory role. A supervisory role was defined as a position in which the participant had direct reports.

The CLS contains 15 Likert scale items divided into five subscales that contain three questions each.[7] The CLS was developed and validated using a written survey format.[7] The five subscales of the CLS reflect the five leadership practices of the Kouzes and Posner Model; (1) challenging the process, (2) inspiring a shared vision, (3) enabling others to act, (4) modeling the way, and (5) encouraging the heart.[7,17] Each of the subscales investigates the core behaviors of each practice. Table 2 displays the subscales and their associated questions. After completing the CLS the participants completed a two question GRCLS.[7] The questions asked participants to rate if they consider themselves leaders in clinical practice and if they believe they demonstrate leadership behaviors in their practice.

Table 2. Clinical Leadership Survey Subscales and Associated Questions

Subscale	Associated Survey Questions
Challenging the Process	Frequency of questioning the current process
	Seeking the best available evidence to support clinical decisions
	Self-reflection to improve future care
Inspiring a Shared Vision	Frequency of interprofessional collaboration
	Authentically engaging with both patients and colleagues to provide patient-centered care
Enabling Others to Act	Frequency of active listening
	Employing cooperation
	Establishing therapeutic relationships
Modeling the Way	Frequency of following through
	Work towards goals
	Commit to patient-centered care.
Encouraging the Heart	Frequency of celebrating the success of others
	Providing positive feedback

[a] Derived from Patrick.[7]

To score the CLS, each value on the Likert scale was assigned a numeric value; 1 = Almost Never, 2 = Occasionally, 3 = Some of the Time, 4 = Most of the Time, 5 = Almost Always.[5,7] The values are added among each subscale to obtain the subscale score, and all scores are totaled to determine the total CLS score.[5,7] Higher scores suggest more frequent demonstration of the core behaviors of clinical leadership. To score the 2-item GRCLS each statement on the Likert scale was assigned a numeric value of 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.[7]

The CLS was adapted from the Leadership Practices Inventory by Patrick, and the validity of the instrument was initially determined during this study.[7] Later, the validity was reported by Patrick, Laschinger, Wong, and Finegan in a separate publication.[17] Three rounds of Confirmatory Factor Analysis were performed to validate the survey, and the authors determined that the CLS had acceptable overall reliability (α = 0.86) and acceptable reliability for each subscale (α = 0.64 - 0.78) when evaluating the tool in staff nurses.[7,17] Patrick included the two item GRCLS at the end of the original CLS to confirm convergent validity.[7] The GRCLS has acceptable reliability (α = 0.78).[7]

Procedures

The NATA Survey Research Service distributed an email to randomly selected participants who were deemed eligible for the study. The email body included a cover letter explaining the purpose, voluntary participation, data security, potential risks, and potential benefits of the study followed by a link to the survey.

Upon navigating to the survey, the participants were provided with an informed consent statement reviewing voluntary participation, measures taken to ensure their protection, and potential risks and benefits from participating in the study. If the participants declined to participate by selecting "I do not agree to participate," they were taken to the end of the survey and thanked for their participation. If participants consented to participate by selecting "I agree to participate," they were taken to the next page where they answered two inclusion and exclusion criteria questions. One question asked if the participant practices primarily as an athletic trainer. The second question asked the participant if they practice for at least 20 hours per week regularly. If participants answered "no" to either of the questions, they were taken to the end of the survey and thanked for their participation. If participants answered "yes" to both questions, they advanced to the next section of the survey to answer demographic questions. After answering demographic questions they advanced to the CLS and GRCLS. Demographic items included age, gender identity, education level, years of practice, practice setting, job title, and supervisory status.

We used two 4-week data collection periods, one in June 2021 and one in September 2021. Reminder emails were sent weekly during each of the 4-week periods to those participants who had not completed the survey.

Data Analysis

After the final survey period ended, data was transferred to SPSS (version 26; IBM Corp, Armonk, NY) for analysis. Frequency analysis of gender, education level, practice setting, job title, and supervisory role status were performed to describe the qualitative demographic variables of the study population. Mean and standard deviation were calculated to describe the years of experience and age of the study population. We used the transform data function in SPSS to calculate the total CLS score. An independent t-test was performed to determine if there was a significant difference between the CLS scores of those in supervisory roles and those who are not in supervisory roles. Significance levels for the independent t-tests were set at $\alpha = 0.05$, a priori. Correlation analysis was performed to determine the association between CLS score and the GRCLS score.

RESULTS

Of the 7,000 emails successfully sent with the survey link, 1 was not deliverable, and 344 recipients began the survey (access rate = 4.9%). Of those who began the survey, 80 (23.2%) did not meet eligibility criteria. Of those who were eligible, 214 respondents completed the entire survey (completion rate = 81.1%, response rate = 3.06%). The mean age of study participants was 37.8 ± 12.1 years and the average years of experience among participants was 14.6 ± 11.9 years. One hundred and twenty-eight (59.8%) females completed the survey, and 85 (39.7%) males completed the survey. The most common practice settings were secondary school (n = 79, 36.9%) and college/university (n = 61, 28.5%). Most study participants (n = 147, 68.7%) did not hold a supervisory role. Participant demographic characteristics are listed in table 3.

Table 3. Participant Demographic Characteristics

Variable	Number (%)
Gender	
Male	85 (39.7%)
Female	128 (59.8%)
Prefer not to say	1 (0.5%)
Education	
Bachelor's	39 (18.2%)
Entry-level Master's	21 (9.8%)
Post-professional Master's	137 (64.0%)
Doctorate	15 (7.0%)
Other	2 (0.9%)
Practice Setting	
Secondary School	79 (36.9%)
Collegiate	61 (28.5%)
Professional Sports	5 (2.3%)
Clinic	40 (18.7%)
Law enforcement/Fire	1 (0.5%)
Performing Arts	1 (0.5%)

Variable	Number (%)
Per-diem/Contract	4 (1.9%)
Military	4 (1.9%)
Industrial	8 (3.7%)
Other	11 (5.1%)
Supervisory Role	
Yes	67 (31.3%)
No	147 (68.7%)
Job Title	
Athletic Trainer	107 (50.0%)
Head Athletic Trainer	40 (18.7%)
Associate/Assistant Athletic Trainer	37 (17.3%)
Director of Sports Medicine	2 (0.9%)
Director of Rehabilitation	2 (0.9%)
Other	26 (12.1%)

There is a significant difference in CLS scores between those who hold supervisory roles ($M = 65.3 \pm 5.4$), and those who do not ($M = 63.5 \pm 5.5$, mean difference $= 1.8 \pm 0.8$, $t(212) = 2.27$, $p = 0.02$). A moderate positive correlation ($r = 0.51$, $p < 0.001$) exists between an individual's CLS score and reporting that they believe they are a clinical leader. A moderate positive correlation ($r = 0.59$, $p < 0.001$) exists between an individual's CLS score and believing they demonstrate leadership behaviors in clinical practice.

DISCUSSION

The purposes of this study were to (1) determine if athletic trainers currently engaged in clinical practice demonstrate clinical leadership and (2) determine the demographic characteristics of athletic trainers who demonstrate clinical leadership. The results of the survey suggest (1) athletic trainers self-report demonstrating clinical leadership in their practice and (2) athletic trainers in supervisory roles are more likely to self-report demonstrating clinical leadership behaviors in their practice.

Our findings that athletic trainers with no supervisory role demonstrate clinical leadership behaviors most of the time are similar to previous studies in staff nurses, who demonstrated clinical leadership behaviors at the same frequency.[5,7] It is important for healthcare providers who provide direct patient care to demonstrate clinical leadership, as staff nurses who demonstrated higher levels of clinical leadership believed that they provided better patient care.[5] For this reason, we believe that it is important for leadership to be demonstrated at the clinical level by athletic trainers. Through the demonstration of clinical leadership behaviors, an individual not only provides improved care to the patients they serve, but they also influence other clinicians to improve the care they provide as well.

Leader and Follower Identity

In this study, athletic trainers in supervisory roles reported demonstrating clinical leadership behaviors more often than athletic trainers who were not in supervisory roles. They also perceived themselves as a clinical leader more often than those who were not in supervisory roles. Past studies found that individuals who believe that they are leaders are more likely to demonstrate leadership behaviors, and those who perceived themselves to be leaders were more likely to be perceived as having leadership potential by their supervisor.[18,19] These individuals are more likely to seek leadership development opportunities, which in turn increases their self-identity as a leader through self-discovery and studying leadership theory.[19-21] Conversely, those who perceived themselves as followers were seen as followers by their supervisors, but were perceived to be better leaders by their peers.[18] The results of this study suggest that one factor in athletic trainers' promotion to supervisory roles is because they believe that they are leaders. Subsequently, they pursue leadership development opportunities and demonstrate qualities that are perceived by their supervisors to be those of an effective leader.

Believing that the individual has leadership potential, the supervisor may choose to promote this individual to a supervisory role. The environment that one is placed in also affects the development of leadership behaviors and skill; those who are placed in leadership roles may develop leadership skills and develop an identity as a leader as a result of immersion in their role, while those who are not in formal leadership roles may not see themselves as a leader because they are not in a formal leadership role.[19] This suggests that our finding of those in supervisory roles perceiving themselves to be a clinical leader more often than those who are not is facilitated by their holding of a formal leadership role. Athletic trainers in supervisory roles may have learned additional leadership skills and developed a deeper leader identity as they performed their job, and that the demonstration of clinical leadership behaviors did not influence the decision to promote the individual to a formal leadership role. We suspect that both of these scenarios influenced their path to a formal leadership role. For example, the logical progression occurs if an individual

demonstrated leadership ability, was subsequently promoted to a formal leadership role, and continued to develop their leadership within their clinical practice.

While athletic trainers who did not hold supervisory roles reported perceiving themselves as clinical leaders less often than athletic trainers in supervisory roles, they reported demonstrating clinical leadership behaviors most of the time. One explanation for this is that these individuals were unaware that they were displaying behaviors as leaders, and as a result did not believe that they were a leader.[19] In order to better align one's perception of themselves with their actions, those around the individual can call attention to the leadership behaviors of the individual. As other's begin to perceive the individual as a leader, their leadership identity may increase.[19]

Structural Empowerment

Our results found that those who were in supervisory roles demonstrated clinical leadership behaviors more often than those who were not in supervisory roles. Past studies suggest that athletic trainers who hold supervisory roles may have an increased sense of structural empowerment when compared to those who are not in supervisory roles. This may be due to increased formal power via their supervisory role, which in turn provides them more access to the four work empowerment structures.[7-11,13] The increased sense of structural empowerment then leads to the more frequent expression of clinical leadership behaviors.[7]

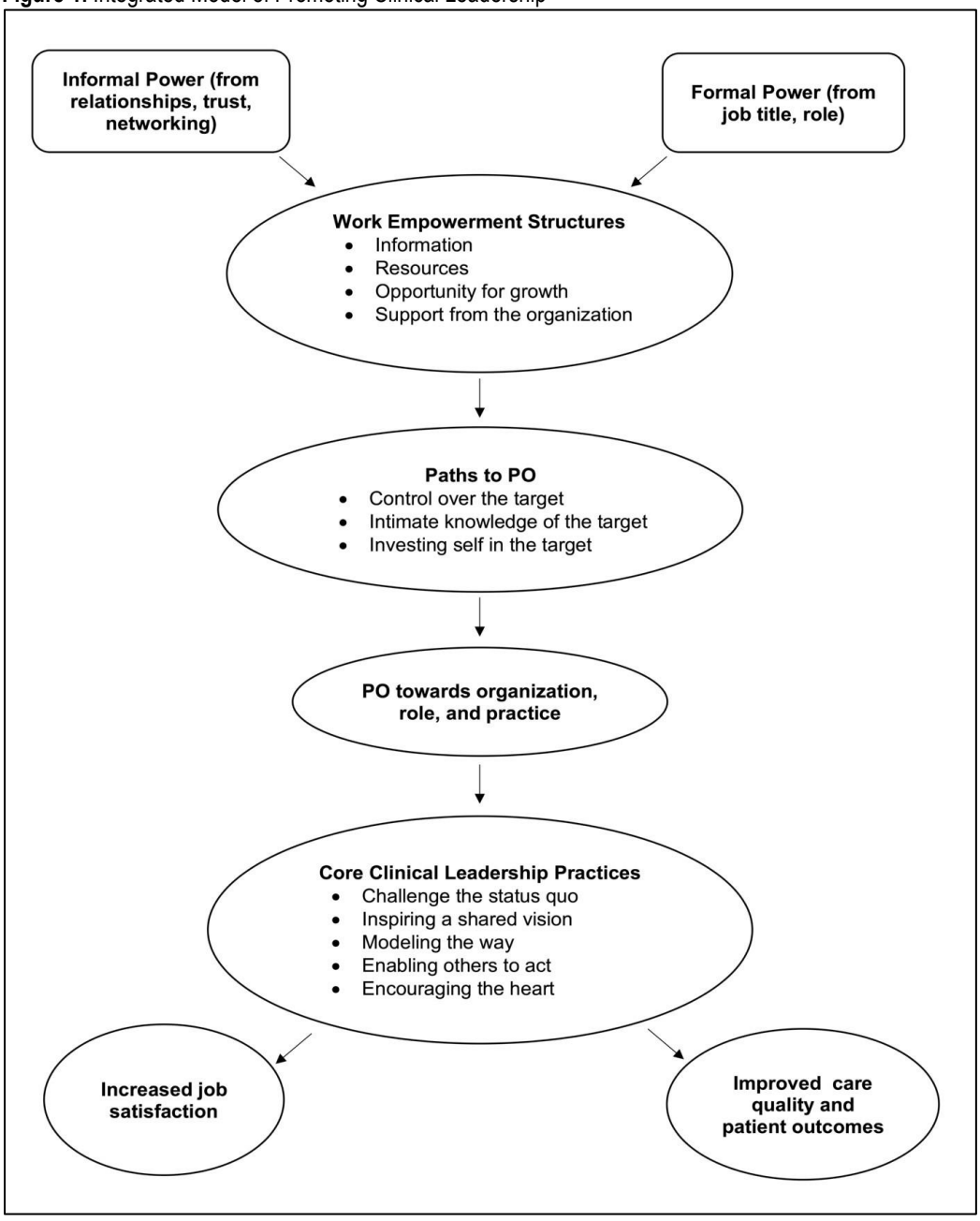
The results of this study suggest that athletic trainers with no supervisory role display clinical leadership behaviors at the same frequency as staff nurses.[7] This is important, because it suggests that athletic trainers have a similar capacity to provide quality patient care as nurses do. It is not possible to draw comparisons to the level of structural empowerment perceived by athletic trainers in this study, as this was outside of the scope of this study. Future studies in athletic training should investigate the relationship between structural empowerment and clinical leadership demonstration in those who are not in supervisory roles. If there is an association between structural empowerment and clinical leadership in athletic training, past work in nursing may provide insights into potential actions organizations can take to create an environment in which athletic trainers feel empowered to demonstrate clinical leadership behaviors and subsequently provide improved patient care.

Psychological Ownership

Psychological ownership (PO) is "a state in which individuals feel as though the target of ownership or a piece of the target is theirs".[22] When an individual possesses PO, they feel possession and connection to an object as being theirs.[22] There are two forms of PO; preventative and promotive.[23] Preventative PO focuses on avoiding punishment, adhering to rules, and fulfilling obligations, while promotive PO focuses of achieving goals and aspirations.[23] Promotive PO is composed of four constructs; self-efficacy, accountability, self-identity, and sense of belongingness.[23-25] Pierce theorized that there are three paths to PO; control over a target, intimate knowledge of target, and investment of self in the target.[22] While no studies have investigated the relationship between PO and structural empowerment, it is possible that there is an interrelation between these two concepts. Specifically, we theorize that the perception of structural empowerment facilitate or inhibit the paths to PO one has towards an organization or their role. One's perceived control over a target may be affected by the resources one has access to and the opportunities available for growth. Intimate knowledge of a target may be facilitated by access to information and resources within an organization. Last, investment of self in a target may be facilitated by opportunity for growth and support of the individual. When any of the three paths to PO are facilitated by work empowerment structure, one will develop a sense of self-efficacy, self-identity, belongingness, and accountability towards the target. In the lens of clinical practice, increased PO towards one's practice may explain why structural empowerment indirectly leads to the expression of clinical leadership behaviors, improved patient outcomes, and increased job satisfaction.[5,7] A visual representation of these constructs is found in Figure 1.

Our study found that athletic trainers who hold supervisory roles display clinical leadership more often than those who do not. While we did not measure PO in participants, it is possible that PO affects one's display of clinical leadership. Self-identity is a core construct of the development of PO, and it is theorized that individuals use ownership to define themselves as an individual.[22] The results suggest that athletic trainers who don't hold supervisory roles do not believe that they are clinical leaders as often as those who are in supervisory roles. In the context of PO, it is possible that those who are in supervisory roles may identify as clinical leaders more often because they have developed a greater self-identity over their role as a clinical leader due to their formal leadership role, and subsequently have a greater sense of PO in their role as a clinical leader. Similarly, it is possible that those who are not in supervisory roles do not possess a strong self-identity of their role as a clinical leader because they have not had formative experiences that spurred the development of their clinical leader identity. As a result these individuals would not have a high level of PO over their role as a clinical leader.

Figure 1. Integrated Model of Promoting Clinical Leadership



*Derived from Boamah,[5] Patrick,[7] Pierce, Kostova, and Dirks,[22] and Avery et al[23]

Recently, a study among athletic trainers found that those who held supervisory roles demonstrated a higher level of PO over the athletic training profession and their respective organizations than athletic trainers who did not hold supervisory roles.[26] This supports the notion that those who have a greater sense of structural empowerment may exhibit higher levels of PO. It is possible that those who are in supervisory roles are more likely to have greater access to the work empowerment structures through the formal power they hold as supervisors and informal power they have gained as a result of tenure with their organization and within the profession.

Leading From the Top, Middle, and Bottom Up

A clinical leader with no formal leadership role has the ability to create a more positive workplace, influence practices for the betterment of the patient, and foster a sense of community to promote the sharing of opinions.[5] Individuals who have no formal leadership role tend to champion more innovation than those who are in formal leadership roles.[27] These individuals tend to lead

innovation from the bottom up through interpersonal influence, while individuals in formal leadership roles tend to lead change from the top down via organizational hierarchy.[27] This suggests that those in informal leadership roles rely more on informal power to cause change, while those in formal leadership roles rely more on formal power found via hierarchy to affect change. The focus on top down and bottom up leadership neglects the influence of those in middle leadership positions, which facilitate the connection to the top and bottom.[28] In the context of athletic training, this would be the connection between top level managers who are not active in clinical practice, middle managers who are active in clinical practice, and frontline staff with no formal leadership responsibility. This study investigates clinical leadership of those at the middle manager level, and those at the frontline level. This study suggests that clinical leadership is demonstrated by those in middle leadership and on the frontlines. This is a critical finding, as it suggests that capacity exists within athletic training to lead up, down, and across the organization. As suggested by past literature, roles within an organization have different responsibilities in the context of promoting organizational change. We theorize that leadership can be exhibited in different forms by different individuals given the context of their situation and needs of the organization.

Recommendations for Promoting Clinical Leadership Within an Organization

The expression of clinical leadership in individuals is the result of multiple organizational processes, its culture, and structure. The expression of leadership in a clinical setting is typically constrained when individuals are given leadership responsibility in a formal capacity.[29] Those who were given formal leadership authority found that they spend less time leading via influence, inspiration, and modeling, and more time leading via transaction and task coordination.[29] Prior research suggests that those who are in formal leadership positions champion change from the top down, while those who are informal positions of leadership champion change from the bottom up.[27] Integrating this knowledge with Kanter's theory of structural empowerment and the theory of PO, we suggest that the role of upper management is to create an organizational culture that empowers those within the organization to demonstrate clinical leadership by fostering PO towards one's practice and the organization. Organizations can pursue this by equipping employees with the information, opportunity for growth, support, and resources, they need to feel self-efficacious, accountable for their actions, a sense of belongingness, and identify with the organization or their role. When these criteria are met, the clinician is empowered and has the drive to affect change, deliver high quality care, and increase job satisfaction. Employers might include providing employees access to computers and other technology to perform their roles, having a clearly defined organizational structure and career ladder, the opportunity to serve on various committees, and transparency of organizational goals in relation to the mission, vision, and values of the organization.

Those in middle management positions have the responsibility to lead up to upper management, while also leading those on the frontlines. The middle manager acts as the voice of upper management to the clinical staff, and acts as the advocate and voice of the clinical staff to upper management. Middle managers can advocate for clinical staff to upper management by championing frontline innovation and clinician advancement. Middle managers can lead and empower clinical staff by ensuring that they have a practice environment that affords them access to information, opportunity, support, and resources.[7]

Limitations and Future Considerations

This study is not without limitations. First, data collection was performed during the COVID-19 Global Pandemic, which has disrupted data collection in research.[30] We utilized two data collection periods during this study due to a low initial survey response rate. The total survey response rate for this study was low (3.06%). While there was a low response rate, we believe that these results are still meaningful, and can serve as a preliminary study of clinical leadership in athletic training. In these times, meaningful research should still be considered despite low response rates.[30] Future considerations for investigations into clinical leadership in athletic training should focus on gaining a larger number of responses.

Future research should investigate the influence of structural empowerment and psychological ownership on clinical leadership in athletic trainers. It is possible that the association between structural empowerment and the demonstration of clinical leadership also exists in athletic training, and future studies should determine effective interventions for promoting clinical leadership in athletic trainers. The exploration of psychological ownership in relation to structural empowerment would be a novel investigation and could lead to a deeper understanding of how structural empowerment affects clinical leadership. Psychological ownership has been identified in athletic trainers and it is possible that psychological ownership affects clinical leadership demonstration.[26] Future studies should seek to determine if one's psychological ownership of their practice increases their frequency of the demonstration of clinical leadership.

The Prioritized Research Agenda for the Athletic Training Profession identified vitality of the profession as a research priority.[31] Clinical leadership is associated with increased job satisfaction in staff nurses who demonstrate clinical leadership. Measuring athletic trainer job satisfaction was outside the scope of this study, however, future studies should investigate if this association

also exists in athletic training. If this association does exist, methods of promoting clinical leadership could also help to increase job satisfaction and decrease attrition from the profession.

The intention of this study was not to investigate each subscale of clinical leadership, but to determine if clinical leadership behaviors are demonstrated by athletic trainers. Future research can specifically examine the specific subscales of clinical leadership to determine if there are differences in subscale scores between those in supervisory roles and non-supervisory roles. This may provide further insight into the cause of the discrepancies between the expression of leadership behaviors and perception of being a clinical leader found in this study. Additionally, this study relied on the self-reported behaviors of the study participants. Future studies should consider investigating the clinical leadership of individuals as perceived by the individuals around them. This may help to decrease self-assessment bias and provide insight from the perspective of peers' perceptions of one's leadership.

CONCLUSION

Athletic trainers in supervisory roles are more likely to demonstrate clinical leadership behaviors and see themselves as clinical leaders in their practice. We believe that this relates to the structural empowerment one feels from their organization, the ownership an individual feels over their practice, and an individual's identity as a leader. Future studies should seek to examine the interplay of these relationships, so that interventions can be implemented to increase the demonstration of clinical leadership in all athletic trainers, improve the quality of care provided, and promote the vitality of the profession.

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