Leadership in Physical Therapy: Characteristics of Academics and Managers: A Brief Report

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ABSTRACT

Purpose: To explore the characteristics of physical therapy leaders in academic and managerial roles. **Methods:** This quantitative, cross-sectional study used an online questionnaire administered via email to Canadian physical therapists recruited through the Canadian Physiotherapy Association and via additional emails targeted to academic and health care institutions. Individuals who met the inclusion criteria after completion of the questionnaire were asked to complete the Clifton StrengthsFinder, which was used to objectively assess the extent to which participants exhibited personality characteristics. We calculated frequencies for demographic characteristics and the 10 most prominent characteristics for participants in academic and managerial roles.

Results: A total of 88 participants completed the questionnaire (52 managers, 36 academics). The most prevalent strengths among both academics and managers were the learner and achiever characteristics. **Conclusions:** Academics and managers in physical therapy share similar core characteristics, with slight variations in secondary characteristics.

Key Words: delivery of health care; leadership; survey.

RÉSUMÉ

Objet: Explorer les traits de personnalité des chefs de file de la physiothérapie dans les postes d'enseignement et de gestion. **Méthodes:** Cette étude transversale quantitative a été réalisée au moyen d'un questionnaire en ligne envoyé par courriel aux physiothérapeutes canadiens; ces derniers ont été recrutés grâce à l'Association canadienne de physiothérapie (ACP) et grâce à des courriels supplémentaires ciblant les établissements d'enseignement et de soins de santé. Nous avons demandé aux personnes qui répondaient aux critères d'inclusion selon le questionnaire de faire le test Clifton StrengthsFinder (CSF). Ce test a permis d'évaluer objectivement la mesure dans laquelle les participants présentaient certains traits de personnalité. Nous avons calculé les fréquences des caractéristiques démographiques et les dix traits de personnalité les plus marquants chez les participants occupant des postes d'enseignement et de gestion. **Résultats:** Un total de 88 participants ont répondu au questionnaire (52 gestionnaires, 36 enseignants). Les forces prévalentes, autant chez les enseignants que chez les gestionnaires, étaient l'apprentissage et l'accomplissement. **Conclusions:** Les enseignants et les gestionnaires en physiothérapie ont des traits de personnalité de base similaires, alors qu'on observe de légères variations dans les traits de personnalité secondaires.

Over the past 10 years, funding restraints within the Canadian health care system have seen reform at the provincial and territorial levels, with a focus on reorganization and delivery of quality care.¹ Effective leadership is required to address the challenges around access, cost, and increasing regulation that currently face health care administrators.² Leadership in health care involves influencing the actions of others toward accomplishing goals, setting the pace and direction of change, and facilitating innovative practice.³ A plethora of theories on leadership are described in the literature, each ap-

proaching the topic with a distinct focus such as leadership traits, style, or context.⁴

Leadership categorization theory posits that basic leadership prototypes exhibit a set of characteristics rather than a single critical feature.⁵ The extent to which someone is perceived as a leader may depend on the extent to which that person's traits overlap with those of a typical leader in the same position. People often establish a prototype by drawing on beliefs about the traits and abilities of a leader, as well as personal experience with people in leadership positions.⁶

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With the continuing need for health care reform, the American Hospital Association,⁷ along with professors of policy⁸ and medicine,⁹ has called on physicians to lead the change. As a result, much of the literature on health care leadership has focused on physicians.^{10–15} Combes⁷ emphasized that physicians who possess the right combination of leadership characteristics are ideally placed to partner effectively with hospitals and institutions to improve the efficiency and delivery of health services. Business acumen, vision, and emotional intelligence are among the characteristics that have been highlighted as essential for effective physician leadership.¹⁰

The physiotherapy literature has only recently begun to pay similar attention to the topic of leadership. In 2012, Desveaux and colleagues¹⁶ reported that physical therapists perceive communication, professionalism, and credibility as the traits most important for leadership (a different set of traits from those considered essential for physicians). Significantly fewer physical therapists perceived leadership characteristics as important in a community setting than in their workplace setting,¹⁷ perhaps because they had limited exposure to leadership skills and opportunities outside the workplace. This finding suggests a need to be more conscious of opportunities for leadership roles within the health care system at large and the impact of occupying these roles on the physical therapy profession. More recently, Chan and colleagues¹⁸ compared the personality characteristics of physical therapists in leadership positions with those of therapists not in leadership positions and found that leaders exhibited traits similar to those of non-leaders but were more likely to be achievers (defined as individuals with a constant drive to accomplish tasks).¹⁸ The results of leadership research inform the development of continuing education programmes for physical therapists interested in leadership positions and provide a foundation for future leadership research within the profession exploring whether characteristics are inherent or develop preferentially as a result of being in a leadership role.

Research to date has examined leadership at a superordinate level,¹⁹ meaning that the specific context in which the leader functions was not specified. However, the extent to which a characteristic applies to an individual leader may depend on the type of leader in question.²⁰ Nichols and Cottrell,¹⁹ who examined whether desired traits differed on the basis of leadership level, found that although trustworthiness and intelligence were highly rated and consistently desired across all leader categories, other traits were not equally as desired.¹⁹ Dominant traits such as ambition and assertiveness were desired in high-level leaders (e.g., company president), and interpersonal characteristics such as emotional stability and supportiveness were desired in low-level leaders (e.g., supervisor).¹⁹ Nichols and Cottrell¹⁹ therefore proposed that successful leadership may vary

between roles and that this variation may affect organizational effectiveness.

The aim of our study was to objectively explore the characteristics of physical therapy leaders according to their leadership role. On the basis of Nichols and Cottrell's¹⁹ work, we hypothesized that leaders in two different roles (academic and managerial) would display similar primary characteristics and unique clusters of secondary characteristics.

METHODS

Our quantitative, cross-sectional study involves a secondary of analysis of data for which the initial study design and results have been described previously.¹⁸ Briefly, data for the initial study were collected over a 4-month period from January 16 to May 21, 2014. Interested physical therapists first completed a demographic questionnaire that collected their biographical data and determined whether they met the inclusion criteria for the study; those eligible then received an access code to complete the Clifton StrengthsFinder (CSF; Gallup Organization; Princeton, NJ). The study was approved by the Ethics Review Board at the University of Toronto (protocol no. 29570).

Clifton StrengthsFinder

The CSF is a validated and standardized electronic self-assessment that identifies a person's most prominent characteristics.²¹ Composed of 177 items, the CSF requires approximately 45 minutes of uninterrupted time to complete. It evaluates 34 characteristics by presenting participants with a dichotomous scale and asking them to select which statement they most relate to and to what degree (for a description of characteristics, see the Appendix). A person's affinity for certain characteristics, as calculated by the CSF, determines his or her personal strengths. After completing the CSF, the respondent receives a Signature Themes Report listing his or her top five strengths. Participants completed the questionnaire and submitted their Signature Themes Report to the research team, which allowed us to track responses and ensure that we did not receive duplicate assessments.

Eligibility criteria

Canadian physical therapists were eligible to participate in the original study if they had at least 5 years' experience, held a valid physiotherapy licence, and had a valid email address. The present study included only participants who occupied an academic role (defined as lecturer, assistant or associate professor, or full professor) or a managerial role (defined as administrative manager, director, vice president, or professional practice leader; a professional practice leader is responsible for supporting staff and promoting and monitoring the application of best practices and evidence-based intervention).

Recruitment

As described previously,¹⁸ the recruitment strategy for the original study included a general email to Canadian Physiotherapy Association (CPA) members. We sent additional recruitment emails to Canadian universities and health care institutions to target academics and managers and sent reminder emails according to a modified Dillman method. We also sent emails to past recipients of formal leadership awards administered by CPA or provincial boards (e.g., Enid Graham Memorial Lecture Award, International Health Award, Mentorship Award, Clinical Education Award), who were included in the current study if they held an academic or managerial role. The use of multiple recruitment strategies and the likelihood of overlap makes it impossible to determine an exact response rate.

Data analysis

For the present study, we conducted a secondary data analysis exploring the 10 most prevalent characteristics exhibited by two distinct groups of leaders in the physical therapy profession: academics and managers. Both comparisons used the same approach: First, we recorded the top five strengths (out of 34 possible characteristics) from the Signature Themes Report for each participant. Next, we calculated frequency distributions and percentages of each characteristic appearing in a participant's Signature Themes Report across the 34 characteristics. Finally, we determined the 10 most prominent strengths for each group.

RESULTS

Although we cannot calculate an exact response rate because of overlap in our selective recruitment strategy, our recruitment efforts yielded a total of 422 people interested in participating in the study, of whom 88 were eligible for the current study; their average age was 47 (SD 10) years. Of these, 52 (59%) were managers and 36 (41%) were academics. Across the entire sample, 72 (82%) were female, and 33 (38%) had been awarded a formal leadership award. The majority of participants were from Ontario (45%), followed by British Columbia (16%) and Saskatchewan (10%); all provinces and territories were represented except Nunavut and the Northwest Territories. Participants were diverse in terms of their primary work environment: 27% worked in hospitals, 26% in academic institutions, and 20% in private practice, and the remainder worked in home care, long-term care, and professional organizations.

Table 1 reports the 10 most prominent characteristics for academics and managers. Although the learner and achiever characteristics were most prevalent in both groups, the top 10 most prominent traits of the academic group included empathy and intellection, which were not prevalent traits in the manager group, and managers

Table 1 Most Prevalent Characteristics According to Group

Strength	No. (%) of respondents	
	Academic (<i>n</i> = 36)	Manager (<i>n</i> = 52)
Learner	20 (56)	27 (52)
Achiever	16 (44)	25 (48)
Strategic	13 (36)	15 (29)
Input	12 (33)	12 (23)
Relator	11 (31)	15 (29)
Responsibility	10 (28)	22 (42)
Developer	7 (19)	13 (25)
Analytical	7 (19)	9 (17)
Empathy	7 (19)	
Intellection	7 (19)	
Harmony		13 (25)
Connectedness		9 (17)

Note: Boldface text identifies a characteristic strength that is unique to that group in the study comparison.

exhibited the strengths of harmony and connectedness, which were not key characteristics for academics.

DISCUSSION

Our study is the first to objectively evaluate the strengths of physical therapists on the basis of the leadership roles they fill. Physical therapists in academic and managerial positions exhibit similar primary characteristics but show some variation in secondary characteristics. Our results should be interpreted with caution because the sample size was small and the initial study was not designed for this purpose.

Comparing academic leaders with managers revealed common primary characteristics—learner and achiever—and differences in a few secondary characteristics. These results are consistent with those of previous research that has found that leaders exhibit similar overarching traits^{5,19} with secondary traits that vary according to the specific position.¹⁹ In our study, academics were characterized by empathy and intellection, reflecting their introspective nature, their ability to sense the feelings of others, and their appreciation for intellectual discussion.²¹ These characteristics may stem from factors common to academic environments because people in this role are responsible for working with and teaching students, which requires fostering a supportive and intellectual environment. Managers, however, were characterized by harmony and connectedness, reflecting their desire to seek areas of agreement and their appreciation for the links between all things.²¹ The strong presence of these characteristics in this subgroup may be associated with working in a clinical environment and supervising a

variety of employees with differing personalities. Future studies examining the continuum of academic and managerial leadership may help elucidate whether these characteristics are consistent within a work environment or whether they vary by position in the leadership hierarchy.

The overlap in the remaining characteristics may suggest that academics and managers in physical therapy hold similar leadership roles within the profession. Another explanation may be that physical therapy leaders in management or academia should possess the drive to succeed and engage in continual learning to meet staff expectations and the increasing demands of health care delivery and education. Understanding the characteristics of leaders in the profession will provide insight into the leadership development initiatives available to physical therapists as they progress through their careers, as well as promote informal reflection and formal performance evaluation, which may help to identify additional educational or training opportunities to develop leadership skills.

The limitations of this study relate to the bias associated with online surveys.¹⁸ The CSF's substantial time commitment introduced questionnaire bias, and financial constraints on survey distribution limited the number of people who could complete the survey. Because 92 interested leaders were excluded from the original study sample after the leader group reached its maximum sample size, we were not able to evaluate the strengths of all academics and managers who were interested in the study. Furthermore, because the use of multiple recruitment avenues prevented us from calculating an exact response rate, our results must be interpreted with caution because large-scale generalizations are not possible.

Nevertheless, it is important to note that the demographic profile of respondents is similar to that of Canadian physical therapists,²² although representation of physical therapists from Ontario in the study sample (45%) was higher than the national average (33%). This is not surprising, considering the inclusion criteria for the current study, because 5 of Canada's 15 physical therapy programmes are located at Ontario universities. Nevertheless, our results provide a useful foundation for further exploration of strengths across leadership roles in physical therapy.

CONCLUSIONS

Physical therapists who occupy leadership positions in the profession share similar core characteristics, irrespective of their leadership role, but vary slightly in their secondary characteristics. Further research is needed to understand the profile of leaders across different roles and how best to organize leadership training within the profession. In addition, studies should investigate whether certain characteristics are inherent to the indi-

vidual or develop preferentially as a result of the leadership role.

KEY MESSAGES

What is already known on this topic

Canadian physical therapists perceive communication, professionalism, and credibility as the most important characteristics required for health care leadership. These characteristics differ from those perceived as important by physicians and nurses. The characteristics of physical therapists who hold a position of leadership differ from those of therapists who do not, but they do not appear to be influenced by years of experience, gender, or level of education.

What this study adds

This study adds depth to the understanding of leadership in physical therapy by describing the characteristics exhibited by physical therapists according to defined leadership roles. By objectively measuring characteristics, the results of our study will assist future leadership development initiatives and continuing education opportunities.

REFERENCES

1. Marchildon G. Canada: Health system review. *Health Syst Transit*. 2013;15(1):1–179. Medline:23628429
2. Menaker R. Leadership strategies in healthcare. *J Med Pract Manage*. 2009;24(6):339–43. Medline:19663356
3. James KT. Leadership in context: lessons from new leadership theory and current leadership development practice. London: King's Fund; 2011.
4. Northouse P. Leadership: theory and practice. 5th ed. Thousand Oaks (CA): Sage; 2010.
5. Lord RG, Foti RJ, De Vader CL. A test of leadership categorization theory: internal structure, information processing, and leadership perceptions. *Organ Behav Hum Perform*. 1984;34(3):343–78. [http://dx.doi.org/10.1016/0030-5073\(84\)90043-6](http://dx.doi.org/10.1016/0030-5073(84)90043-6).
6. Shondrick SJ. Implicit leadership and followership theories: dynamic structures for leadership perceptions, memory, leader-follower processes. In: Hodgkinson G, Ford K, editors. *International review of industrial and organizational psychology*, vol. 25. Chichester (UK): Wiley-Blackwell; 2010. p. 1–33. <http://dx.doi.org/10.1002/9780470661628.ch1>.
7. Combes J. Physician leadership: the implications for a transformed delivery system. *Hosp Health Netw*. 2014;88(2):12. Medline:24693722
8. Sinclair D, Carruthers C, Swettenham J. Physician leadership: necessary and in need of nurturing—now. *Healthc Q*. 2011;14(1):6–8. <http://dx.doi.org/10.12927/hcq.2011.22148>. Medline:21301230
9. Chris C, Flemons W. Clinicians as designers and leaders of quality improvement. *Healthc Q*. 2012;15(Spec No. 56–7), 96–100. Medline:24863119
10. Büchler P, Martin D, Knaebel HP, et al. Leadership characteristics and business management in modern academic surgery. *Langenbecks Arch Surg*. 2006;391(2):149–56. <http://dx.doi.org/10.1007/s00423-006-0040-x>. Medline:16572328
11. Leatt P, Porter J. Where are the healthcare leaders? The need for investment in leadership development. *Healthc Pap*. 2003;4(1):14–31. <http://dx.doi.org/10.12927/hcpap.2003.16891>. Medline:14660891
12. Sonnino RE. Professional development and leadership training opportunities for healthcare professionals. *Am J Surg*. 2013;206(5):727–31. <http://dx.doi.org/10.1016/j.amjsurg.2013.07.004>. Medline:24011565

13. Orlando R III, Haytaian M. Physician leadership: a health-care system's investment in the future of quality care. *Conn Med*. 2012;76(7):417–20. Medline:23248866
14. Lee TH. Turning doctors into leaders. *Harv Bus Rev*. 2010;88(4):50–8. Medline:20402055
15. Buell JM. Physician leadership development: a strategic imperative for integrated healthcare delivery. *Healthc Exec*. 2012;27(1):18–20, 22–3, 26 passim. Medline:22313004
16. Desveaux L, Nanavaty G, Ryan J, et al. Exploring the concept of leadership from the perspective of physical therapists in Canada. *Physiother Can*. 2012;64(4):367–75. <http://dx.doi.org/10.3138/ptc.2011-42>. Medline:23997391
17. Desveaux L, Verrier MC. Physical therapists' perceptions of leadership across the health care continuum: a brief report. *Physiother Can*. 2014;66(2):119–23. <http://dx.doi.org/10.3138/ptc.2013-02>. Medline:24799747
18. Chan Z, Bruxer A, Lee J, et al. What makes a leader: identifying the strengths of Canadian physical therapists. *Physiother Can*. 2015. Forthcoming.
19. Nichols AL, Cottrell CA. What do people desire in their leaders? The role of leadership level on trait desirability. *Leadersh Q*. 2014;25(4):711–29. <http://dx.doi.org/10.1016/j.leaqua.2014.04.001>.
20. Offermann LR, Kennedy JK Jr, Wirtz PW. Implicit leadership theories: content, structure, and generalizability. *Leadersh Q*. 1994;5(1):43–58. [http://dx.doi.org/10.1016/1048-9843\(94\)90005-1](http://dx.doi.org/10.1016/1048-9843(94)90005-1).
21. Asplund J, Lopez S, Hodges T, Harter J. The Clifton StrengthsFinder 2.0 technical report: development and validation. Princeton (NJ): Gallup Inc.; 2007 Feb. Updated March 2009.
22. Borgermans L, Goderis G, Van Den Broeke C, et al. Interdisciplinary diabetes care teams operating on the interface between primary and specialty care are associated with improved outcomes of care: findings from the Leuven Diabetes Project. *BMC Health Serv Res*. 2009;9(1):179. <http://dx.doi.org/10.1186/1472-6963-9-179>. Medline:19811624

APPENDIX: DEFINITIONS OF CLIFTON STRENGTHSFINDER CHARACTERISTICS

Characteristic	Definition
Achiever	People strong in the achiever theme have a great deal of stamina and work hard. They take great satisfaction from being busy and productive.
Analytical	People strong in the analytical theme search for reasons and causes. They have the ability to think about all the factors that might affect a situation.
Connectedness	People strong in the connectedness theme have faith in links between all things. They believe there are few coincidences and that almost every event has a reason.
Developer	People strong in the developer theme recognize and cultivate the potential in others. They spot the signs of each small improvement and derive satisfaction from those improvements.
Empathy	People strong in the empathy theme can sense the feelings of other people by imagining themselves in others' lives and in others' situations.
Harmony	People strong in the harmony theme look for consensus. They do not enjoy conflict; rather, they seek areas of agreement.
Ideation	People strong in the ideation theme are fascinated by ideas. They are able to find connections between seemingly disparate phenomena.
Intellection	People strong in the intellection theme are characterized by their intellectual activity. They are introspective and appreciate intellectual discussions.
Input	People strong in the input theme have a craving to know more. Often they like to collect and archive all kinds of information.
Learner	People strong in the learner theme have a great desire to learn and want to improve continuously.
Relator	People strong in the relator theme enjoy close relationships with others. They find deep satisfaction in working hard with friends to achieve a goal.
Responsibility	People strong in the responsibility theme take psychological ownership of what they say they will do. They are committed to stable values such as honesty and loyalty.
Strategic	People strong in the strategic theme create alternative ways to proceed. Faced with any given scenario, they can quickly spot the relevant patterns and issues.