Original Article

Leadership roles of nurse managers from the Portuguese nurse’s viewpoint

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ARTICLE INFO

Received 01 April 2020
Accepted 22 July 2020
Available online at:
http://npt.tums.ac.ir

Key words:
leadership; management; Portugal

ABSTRACT

Background & Aim: The leadership role adopted by nurse managers has a fundamental role in the quality of care. Leadership is fundamental to the successful provision of health services due to its effect on health professionals and patients. This study aims to characterize the leadership roles of nurse managers in clinical nurse’s perspective.

Methods & Materials: This is a descriptive and correlational study. Non-probabilistic convenience sampling with 219 nurses from different health institutions in Portugal. Data collection occurred from November 2019 to January 2020 using the Leadership Skills Questionnaire adapted by Parreira and collaborators o the Portuguese population, based on Quinn’s framework and the instrument developed by him. The data were analyzed using SPSS (version 22) with descriptive and inferential statistics according to the nature of the variables.

Results: The results demonstrated that the study participants recognize the leadership roles of their nurse managers in a balanced manner: Mentor (4.85±1.53), Director (4.62±1.32), Coordinator (4.56±1.34), Producer (4.55±1.31), Monitor (4.40±1.30), Broker (4.36±1.40), Facilitator (4.35±1.40), and Innovator (4.03±1.38).

Conclusion: It is observed greater orientation to the fulfillment of goals. There is a clear orientation to compliance with rules and, therefore, to internal orientation and control. The current study has different implications for nurse managers, education, and research.

Introduction

The improvement of health organizations' results is not only being limited to financial and productive, but also including human results (leadership, motivation, adaptation, innovation). According to Gunawan & Aungusuroch (1), the nurse manager’s roles require the manager a creative action that promotes healthy environments based on organizational goals and implementation of innovation in response to the changing world. It is, therefore important that there is an in-depth knowledge of the people who are an integral part of the organizations. In this context, leadership assumes a preponderant role since it is necessary to instill vision, emotion, proactivity, inspiration, creativity and originality (2).

The leadership style adopted by nurse managers has a fundamental role in the quality of care (3). Leadership is fundamental to the successful provision of health services due to its effect on health professionals and patients (4). Effective leadership must ensure that behavior positively impacts colleagues, users, and their families (5). The roles of nurse managers are adapted to the organization's settings regarding role responsibilities, the span of control, and administrative support (6).

Nurse managers carry out various roles that include the ability to supervise nursing teams, organize workflows, and train less experienced nurses and students; they focus on influencing the people around them to optimize performance based on the organization (3). It is important to know the nurses’ perception and the users’ satisfaction when adopting a leadership role that should be based on the vision, mission, and values of the institution (3). Leaders must possess interpersonal skills to foster happy and committed employees and promote a
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A multidisciplinary approach to service provision and resource use (7).

In health organizations, leadership assumes extreme relevance because of its impact on results. A leader should inspire trust, be intelligent, perceptive, and decisive, be able to lead successfully (8) the daily nursing care activity, and contact with peers. Nurses managers can influence nurses and consequently produce certain organizational outcomes (8). Quinn’s Competing Values Framework is a leadership model widely used in health (9).

According to Quinn’s framework, leadership can be operationalized into eight leadership roles: Innovator, Broker, Producer, Director, Coordinator, Monitor, Facilitator, and Mentor (10). The skills of each role were defined in the framework, grouped into four quadrants. The skills presented by nurse managers are directly related to the work and professional context being a dynamic process, which focuses on performance, requiring attitudes and abilities (11).

The upper right quadrant of the framework related with the Open Systems Theory and with the process of adapting the organization to the external environment defines two leadership roles: Innovator as being the one who is creative, predictive, encouraging, and facilitator of change; Broker as politically astute, acquires resources and maintains the external legitimacy of the unit through the development and maintenance of external contacts. By contrast, in the lower right quadrant, two more leadership roles based on fulfilling the objectives external to the group are specified. Leadership is focused on the definition and motivation for meeting these objectives. The following are leadership roles in this quadrant: Producer who is oriented to fulfilling the task and work, motivating behaviors that allow its implementation; Director who is involved in setting goals and clarifying roles, objectives and defining clear expectations. The lower left quadrant reflects the internal process of the framework focused on internal control and stability. It specifies two leadership roles: Coordinator who maintains the structure, establishing the schedule, coordinating, solving problems, and checking if rules and standards are met; Monitor collects and distributes information, checks performances, and provides a sense of continuity and stability. The last quadrant (upper left) is the quadrant of human relations, emphasizing human interaction and process. In this quadrant, the role of the facilitator is defined as encouraging the expression of opinion, seeking consensus, and negotiating commitments; the mentor is aware of individual needs, promotes active listening, is fair, supports legitimate requests, and seeks to facilitate individual development.

According to Denison, Hooijberg & Quinn (10), effective leadership is a reflection of effective performance in all competing roles. It is not enough to understand the roles that leaders should assume, but rather the operationalization of skills in action. They must possess the corresponding skills to enable them to operate in each of the four quadrants. They also argue that all this is only possible if three challenges are overcome: (i) recognize both the values and weaknesses of each of the four quadrants; (ii) acquire and use the skills associated with each model; and (iii) dynamically integrate the skills of each model into the management situations they face.

This study aims to characterize the leadership roles of nurse managers in the nurse’s perspective. According to Fischer (12), it is essential to develop studies that conceptualize how leadership is understood and practiced by nurse managers, mostly through its impact on the results of health organizations. Thus, this research study emphasizes the nurses’ perspective on the leadership roles of nurse managers.

Methods

This is a descriptive and correlational study in which the participants’ perspective is the central element. The study’s target population was the Portuguese nurses; the sample was non-probabilistic by convenience, with the participation of 219 nurses attending post-graduate education at a higher education institution in the central.
The territory of Portugal, coming from various health institutions (response rate 85%). The data was collected using the Leadership Skills Questionnaire (LSQ) adapted by Parreira et al. (13) to the Portuguese population, based on Quinn’s framework (14) and the instrument developed by him.

The data collection instrument consists of two parts: part 1–socio-demographic characterization and part 2–LSQ. For socio-demographic characterization, the following variables were used: gender, age, level of education, working experience, position, and work time with the current nurse manager. The LSQ consists of 32 items/questions and is implemented on a Likert scale that ranges between semantic fields (1- Almost Never; 2–Very rarely; 3–Rarely; 4–Occasionally; 5–Frequently; 6–Very Frequently; 7–Almost Always). Each item/question corresponds to behavior that translates into a given leadership role. The items/questions are aggregated into 8 dimensions (leadership role) each composed of 4 items/questions: Mentor (items: 8,16,20,29), Facilitator (items: 5,11,24,31), Broker (items: 3,13,18,27), Innovator (items: 1,10,22,25), Monitor (items: 4,14,17,32), Coordinator (items: 2,9,21,28), Director (items: 7,12,19,26) and Producer (items: 5,15,23,30). The scores of each dimension were calculated based on average, ignoring nulls of items/questions that compose them.

The LSQ internal consistency values (Cronbach’s alpha) for all leadership roles, ranging from 0.86 to 0.94 (15). In this study, the LSQ Cronbach’s alpha is 0.98.

Data collection occurred from November 2019 to January 2020, and all nurses, who agreed to participate, and who during the data collection period attended the higher education institution were included in the study. All the questions of the questionnaire were responded to by the participants. Statistical analysis employed descriptive and inferential statistics using the Statistical Package for the Social Sciences (SPSS) program version 22.0 and followed the same logic analysis of Sousa & Guimarães (15). The normality of data was evaluated using the Shapiro-Wilk test. The scores for each leadership role were correlated with the attribute variables using Pearson’s correlation coefficient. The significance level was set at p<0.05.

Participation in the study was voluntary, anonymity was guaranteed, and participants were given the possibility to opt out from the study with no prejudice. All participants signed an informed consent. The study was authorized by the Board of Directors and Ethical Committee of the higher education institution (seem 02/2020).

Results

The study participants presented an average age of 36±8.1 years, ranging from 23 to 59 years. Most were female 76.7% (N=168), which is consistent with the representation of the profession in Portugal. They have an average professional work time of 13±8.1 years, ranging from 1 to 36 years. Regarding the time of professional practice with the current nurse manager, they have an average time of 5±4.9 years, ranging from 1 to 25 years.

It was found that 83.6% (N=183) of the participants have a bachelor's degree, and the remaining are masters (16.4%). Most nurses are in the professional category of the nurse (78.1%, N=171) and the remaining are in the professional category of the specialist nurse (21.9%).

The study participants have a perception above the scale average (Mean=3.5) in all variables, generally recognizing the leadership skills of the nurse managers.

The roles that deserve greater prominence from the perspective of nurses in relation to their managers are Mentor, Director, Coordinator, and Producer. Monitor, Broker, Facilitator, and Innovator assume lower average values (Table 1).
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| Roles    | Minimum | Maximum | Mean  | Standard deviation |
|----------|---------|---------|-------|--------------------|
| Facilitator | 1       | 7       | 4.35  | 1.40               |
| Mentor    | 1       | 7       | 4.85  | 1.53               |
| Innovator | 1       | 7       | 4.03  | 1.38               |
| Broker    | 1       | 7       | 4.36  | 1.40               |
| Producer  | 1       | 7       | 4.55  | 1.31               |
| Director  | 1       | 7       | 4.62  | 1.32               |
| Coordinator | 1   | 7       | 4.56  | 1.34               |
| Monitor   | 1       | 7       | 4.40  | 1.30               |

Using the paired sample t-test (t) we verified whether there were differences with statistical significance between the leadership roles of nurse managers, which are described in the Quinn Framework in a dichotomous manner. As a result, there are significant differences between Coordinator and Innovator, \( t(218)=11.06, P<0.001 \). The role of the Producer is significantly higher than that of facilitator, \( t(218)=4.11, P<0.001 \).

There were also significant differences between Mentor and Director, \( t(218)=2.91, P=0.04 \). There are no statistically significant differences between Monitor and Broker, \( t(218)=0.70, P=0.48 \).

Using Pearson’s correlation coefficient (r) it was found that the leadership roles present positive and significant correlations with one another (Table 2).

Table 2. Matrix of correlation between the leadership roles of nurse managers

|         | Facilitator | Mentor | Innovator | Broker | Producer | Director | Coordinator | Monitor |
|---------|-------------|--------|-----------|--------|----------|----------|-------------|--------|
| Facilitator | 1          | 0.776**| 0.852**   | 0.712**| 0.856**  | 0.854**  | 0.801**     | 0.838**|
| Mentor   | 1           | 0.696**| 0.597**   | 0.673**| 0.683**  | 0.718**  | 0.647**     |        |
| Innovator | 1           |        | 0.756**   | 0.862**| 0.862**  | 0.867**  | 0.859**     |        |
| Broker   | 1           |        |           | 0.767**| 0.769**  | 0.780**  | 0.821**     |        |
| Producer | 1           |        |           |        | 0.916**  | 0.880**  | 0.903**     |        |
| Director | 1           |        |           |        |          | 0.852**  | 0.897**     |        |
| Coordinator | 1    |        |           |        |          |          | 0.832**     |        |
| Monitor  | 1           |        |           |        |          |          |             |        |

**Significant correlation for \( r<0.001 \)

According to Quinn’s framework, we can group leadership roles into Flexibility/Control or Internal Orientation/External Orientation. Thus, the nurse managers’ positioning was calculated to perceive their positioning according to the guiding axes that divide the quadrants. The calculation of the new variables was based on the mean ignoring the nulls of the variables that compose them. Thus, flexibility resulted from the mean of the variables: Facilitator, Mentor, Innovator, and Broker. Control resulted from the variables: Monitor, Coordinator, Director and Producer. Internal orientation resulted from Mentor, Facilitator, Monitor, and Coordinator. External orientation resulted from Innovator, Broker, Producer, and Director.

According to Figure 1, it was found that nurse managers have a greater tendency to control, with mean values of \( 4.53 \pm 1.26 \) ranging from 1 to 7, than to flexibility \( (4.40 \pm 1.27) \). They present higher Internal orientation, with mean values of \( 4.54 \pm 1.27 \) ranging from 1 to 7 than External orientation \( (4.39 \pm 1.26) \).
Using the paired sample t-test (t) we checked whether there were differences with statistical significance between the dichotomous variables presented in Figure 1. As a result, there are significant differences between control and flexibility, t(218)=4.09, P<0.001. Internal orientation is significantly higher than external orientation, t(218)=4.92, P<0.001.

Figure 1 shows that the participants perceive in their nurse managers a lower capacity for innovation of the organization (4.20±1.30), mostly because their managers are not characterized as highly creative, users of predictive models and agents facilitating change, in addition to influencers of political power and maintenance of external contacts in favor of the development of the organization. The nurse managers oscillate balanced by the focus on meeting the objectives (4.59±1.29), rules, standards, internal control, and stability (4.48±1.27).

The orientation to Rules is significantly higher than to Innovation, t(218)=8.46, P<0.001. There are no significant differences between the objectives and the support.

There are no differences with statistical significance between the leadership roles of nurse managers and the socio-demographic variables.

Discussion

In this study, we demonstrated the leadership roles of nurse managers in the nurse’s perspective. The leadership roles of nurse managers in a nurse’s perspective are balanced by the different leadership roles, which is consistent with that recommended by Schmidt (9); a leader does not need to evidence all roles simultaneously but needs to mobilize them at the appropriate time. The nurse’s perceptions of nurse manager leadership qualities are strongly correlated to the level of nurse engagement in practice (16). In a study conducted in a hospital institution by Picchiai (17) about the management skills of nurse managers, it was found that the leadership roles most valued by managers themselves are those of Innovator and Mentor, while the roles of Coordinator, Monitor, and Broker are the least perceived. In this context, it would be essential that each nurse manager knew their leadership style and that they were trained in such a way that they aimed at a reflection of the organization’s strategy (3). In the study conducted by Supamanee et al. (18), nurses must demonstrate their leadership skills and implement them in clinical practice.

Based on the analysis of the binomial of the leadership roles, the study participants consider that the nurse managers are more Coordinators than Innovators with higher
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and statistically significant. Therefore, there is a greater perception of the role of Coordinator with greater recognition of more conservative leadership skills, working with an emphasis on values associated with bureaucracy (19). The fulfillment of goals and objectives of the organization should be not only the focus of managers but also the observation of external challenges and constraints in an innovative way. This greater perception of coordination over innovation places us before an organizational culture focused on the Internal Processes Model that emphasizes the need for safety of nurse managers very focused on compliance with the rules. However, they must be willing to adopt and implement new ideas and innovations, to cope with quality and economic constraints, and to be competitive, nurse leaders must support innovation (20). According to Schmidt (9), the nurse managers process information, and their power is based on experience and control, assuming a very traditional leadership role. Therefore, the participants consider that their nurse managers show the capacity to preserve the structure, thus taking on the roles of Monitor and Coordinator. As coordinators, the valorization of reliability, continuity, and effort to achieve the organization’s objectives through control and evaluation are perceived. Coordinators are skilled in administrative tasks (9), consistent with their internal orientation, control, and stability. For their assumption of the Monitor role, nurse managers value the rational and technical analysis of the standards defined for the organization.

Conversely, the Open Systems Model emerges in which participants recognize lower skills in their managers. In this sense, due to the lower perception of the roles of Innovator and Broker, there is no decision making based on creativity, flexibility, and risk management, presenting as main values adaptability and agility of action. Thus, the participants consider that their managers do not show great skills for growth and acquisition of resources, with weak negotiation and persuasion power, and valorization of image and reputation by the exterior. They do not recognize their skills for innovation through imagination and adaptation to change and transformation through creativity and long-term vision. According to the results, there is a clear orientation, with statistically significant differences, to compliance with Rules rather than to innovation. Innovation and creativity are the key to success and promote competitiveness and globalization (21).

Although the participants consider that their nurse managers are Facilitators, these are more Producers, which shows their greater orientation to meeting objectives rather than to supporting employees. Carvalho et al. (22) consider that there should be effective and efficient resource management in response to the organization’s objectives. According to Trus et al. (23), nurse managers need to support their decision making on a clear mission, tasks, and values of the organization to feeling more structurally and psychologically empowered. Therefore, there is a greater emphasis on achieving the objectives defined for the organization to the detriment of people’s motivation and decentralization of decisions. However, nurse managers show more the role of Mentor than Director, with skills more characterized by active listening than by the planning of goals. Thus, there is an organizational culture balanced between the Rational Goals Model and the Human Relations Model (there are no differences with statistical significance). Although there is a focus on productivity, nurse managers show active listening leadership skills, in the role of mentor, which characterizes one of the areas of intervention of the nursing profession.

They show lower skills in assuming the role of Director may be due to them assuming intermediate management positions, much more oriented towards compliance with rules and objectives than towards goal planning; In contrast, as a facilitator, they show skills for seeking consensus and encouraging the expression of opinion by their employees. In the Human
Relations Model, the decision-making process should result in support, with a high emphasis on people’s motivation. The process of engaging employees should be based on trust, inspiration, motivation, empowerment, and clear alignment with the organization’s vision and values (24). Therefore, nurse managers, from the perspective of their subordinates, use the group values to influence other people. The value of human resources is the main criterion of effectiveness (9). Nurses need to work in an empowered environment to have access to information, support, resources, and to feel the opportunity to grow and work with the sources of power (23). In this model, the role of mentor stands out, which emphasizes the concern of nurse managers with sensitivity and consideration, valuing the development of individuals who strive to achieve organizational objectives being open and fair. Mentors are skilled in developing human skills and resources. While for facilitators, there is an emphasis on their concern for morale and cohesion, valuing interpersonal skills, and striving to achieve organizational goals. Facilitators are skilled in mediation and problem solving (9), making the organization more resilient to handle complexity effectively and efficiently (24). Organizations need striving, committed people willing to ‘go beyond’ and adopt spontaneous, innovative, and citizenship behaviors (2). Findings from the study developed by Manning (25) support the importance of the leader communicating with followers. The nurses’ psychological empowerment results in positive behavior and attitudes, organizational commitment, work satisfaction, and more engagement in the organization (26).

In the Rational Goals Model, their need for achievement is demonstrated because the practice of decision-making obeys a rational logic, and when put into practice, it is definitive (9). These nurse managers are directive and work for productivity-focused goals. Therefore, they are characterized by the roles of Producer and Director because they value motivation, productivity, and strive to achieve organizational goals, encouraging workers to comply with the guidelines. In addition, they value planning, defining objectives, roles, and tasks, presenting great skill to give instructions.

It is observed that nurse managers have an internal and control orientation, which may be related with the fact that management processes thus implemented provide them with greater safety and stability, mostly due to the management styles being directed to the user, focusing on the commitment to the organization in favor of care quality. Thus, and as intermediary managers, it is noted their concern as to compliance with the rules to comply with the designs of their hierarchical superiors. Nowadays, it is important to improve the training on the nursing manager because the nurse managers have limited experience and competence (27).

In the results, it is observed that all leadership roles correlate with one another, which leads us to affirm that assuming one role enhances the development of another, with the corresponding associated skills. The major limitation of the study relates to the sample size and sampling technique, which precludes us from extrapolating to the population.

**Conclusion**

The nurse managers in Portugal, from the perspective of their employees, present leadership roles distributed evenly between the different roles, but with greater focus on the role of Mentor, Director, Coordinator and Producer. It is also observed greater orientation to the fulfillment of goals, falling into the Rational Goals Model. There is clear orientation to compliance with rules and therefore to internal orientation and control. The less recognition of innovation from the participants in relation to their nurse managers, which may result in lower efficiency of health organizations to develops knowledge and response to customer demand.

The result of the current study has different implications for nurse managers, education, and research. Nurse managers
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should understand the importance of different leadership roles and be trained on the role which reflects the organization's goals. For education, different leadership roles should be integrated into the nursing curriculum. In the future, comparative research studies between the perceptions of nurses and nurse managers would be fundamental.

Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Acknowledgments

The researchers would like to thank all the nurses who voluntarily participated in this study.

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