Effective leadership: Competing Values Framework

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Abstract

Introduction: The importance of leadership in the performance of the organization has been demonstrated in various studies. Given that effective leadership relies on the performance of leadership roles, it becomes essential to identify the led nurses’ perceptions of the performance of leadership roles by the head nurse.

Material and methods: A descriptive and correlational study was developed using Quinn’s Model of Leadership, which is composed of 32 questions assessing leadership skills in 8 roles (mentor, facilitator, broker, innovator, monitor, coordinator, director and producer). The sample was composed of 690 nurses, mostly female (76.7%), with a mean age of 34.56 years and 12 years of professional experience. This instrument showed satisfactory psychometric properties.

Results: The subordinate nurses’ leadership perceptions showed mean scores above the midpoint of the scale in all leadership roles, with a mean and standard deviation of 5.00 ± 1.15, respectively.

Conclusions: The subordinate nurses’ perceptions of a high level of performance of leadership roles indicate that these leaders are competent. A poor performance of the facilitator role suggests the need for head nurses to acquire leadership skills which help them manage interpersonal conflicts and promote cohesion and teamwork within the current context of health care restructuring and decreased nurse staffing levels.

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Keywords: Leadership roles; Effective leadership; Competing Values Framework; Nurses

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1. Introduction

Over the course of time, leadership has been a central theme in organizational literature. It has been defined and operationalized in various ways by some of the most renowned researchers\(^5\),\(^6\), who designed the Competing Values Framework (CVF) based on research carried out to understand organizational effectiveness. During the 1990s, leadership roles became widely recognized\(^7\), thus a variety of roles may be found in literature. This diversity reflects different leadership models under which the Competing Values model\(^4\) falls. This model is defined as differentiated and privileged given the fact that it is based on leadership theories which include the performance of several roles\(^8\). This leadership model is based on four models divided into eight roles\(^4\),\(^9\). Table 1 shows the characteristics of each of these models.

| Criteria of effectiveness | Rational Goal | Internal Processes | Human Relations | Open Systems |
|---------------------------|---------------|--------------------|-----------------|--------------|
| Means-ends theory         | Productivity/ profit | Stability, continuity | Commitment, cohesion, morale | Adaptability, external support |
| Emphasis                  | Clear direction leads to productive results | Reutilisation leads to stability | Involvement results in commitment | Continual adaptation and innovation lead to acquiring and maintaining external resources |
| Atmosphere                | Goal clarification, rational analysis, and action taking | Definition of responsibility, measurement, documentation | Participation, conflict resolution, and consensus building | Political adaptation, creative problem-solving, innovation, change management |
| Leadership roles          | Director and Producer | Monitor and Coordinator | Mentor and Facilitator | Innovator and broker/ mediator |

Table 1 Characteristics of Quinn’s four leadership models .Adapted from Quinn et al., (2003, p. 11)

This model, which was considered to be one of the 40 most important models in the history of management\(^10\), proposes specific relationships between the eight roles. These roles fall within the two key dimensions of management leadership (flexibility/stability and external/internal guidance) from which four quadrants are created (human relations model, open systems model, rational goal model and internal processes model).

Figure 1 shows the two key dimensions of leadership, as well as the division of the eight leadership roles into the four models. The human relations model is represented by the roles of mentor and facilitator; the open systems model is represented by the roles of broker and innovator; the internal processes model is represented by the roles of monitor and coordinator, and the rational goal model is represented by the roles of producer and director.
The human relations model, which includes the roles of facilitator and mentor, gives emphasis to commitment, cohesion and morale. The premise is that involvement results in commitment and the core values are participation, conflict resolution, and consensus building. The role of the manager is to become an empathic mentor and a process-focused facilitator. According to these authors\(^{(4,9)}\), facilitators encourage collective efforts, promote cohesion and teamwork, and manage personal conflicts. Mentors dedicate themselves to developing people through careful guidance and empathy. In this role, the manager contributes to enhancing skills and planning the individual development of the subordinates.

From these authors’ point of view\(^{(4,9)}\), the open systems model results from the need for leadership in a rapidly changing world where knowledge is vast. On the one hand, leaders have little time to devote to organization and planning issues and, on the other hand, they are forced to make quick decisions. Therefore, the key processes are adaptation, creative problem-solving, innovation, and change management. Thus, according to these authors\(^{(4,9)}\), the manager should become a creative innovator and a negotiator who uses his/her power to have an influence within the organization. Innovators are usually visionaries who facilitate adaptation and change, while negotiators are concerned with sustaining external legitimacy and obtaining external resources. For this reason, they should have the power and ability to persuade and influence.

The rational goal model aims at productivity and profit. Thus, from this perspective, the role of the manager is to become a deciding director and a pragmatic producer. As directors, managers give emphasis to planning, the establishment of goals and the definition of objectives. In turn, producers are task-oriented, keep focus on work and show high interest and personal motivation\(^{(4,9)}\).

In the internal processes model, the effectiveness criteria are stability and continuity, based on the premise that a clear definition of procedures promotes stability. Thus, as monitors, managers should know what happens in their
units and check if people comply with the rules while, as coordinators, they should give emphasis to the organization and coordination of the team’s efforts[4,9].

In this model, an effective leader is one who can play the eight leadership roles simultaneously, thus facing paradox, contradiction and complexity[1], which characterizes health organizations[2]. This problem is considered to be amplified[11] in health structures given the need to lead professionals who belong to major operational development structures and structures with great technical-scientific differentiation, where most of the decision-making processes are concentrated[2]. For this reason, the assessment of leadership roles is crucial.

In the current context of profound changes in health organizations, the head nurse, the nursing team’s leader, can play a very important role in the development of nurses’ skills[12].

In this perspective, the Portuguese Nurses Association (Ordem dos Enfermeiros)[13] argues that nurses’ intervention in the area of management is an important strategic and determinant factor in the development of human resources, by setting conditions that promote quality in professional practice.

Therefore, conducting research studies is very important to understand the subordinate nurses’ perception of leadership.

1.1. Materials and methods

This study aimed to understand nurses’ perception of the leadership roles played by manager nurses.

The perception of leadership was assessed using Quinn’s Leadership Model[4] adapted to health[14]. This instrument is a 7-point Likert-type scale (ranging from almost never to almost always). It is composed of 32 questions that assess leadership skills, distributed by 8 roles, namely: mentor, facilitator, broker, innovator, monitor, coordinator, director, and producer. These eight roles fall under the two key dimensions of leadership (flexibility/stability and external/internal guidance), from which the four leadership models are created. The human relations model is represented by the roles of mentor and facilitator; the open systems model by the roles of broker and innovator; the internal processes model by the roles of monitor and coordinator; and the rational goals model by the roles of producer and director. This instrument allows to assess the subordinates’ perception of what “is characteristic” and what “should be characteristic” of the leader, and the gap between that which is perceived and that which is expected.

The socio-demographic variables were obtained through the questionnaire items “age” and “gender”. The professional variables were obtained through the items “years in the profession” and “period of time in the current service”, and the professional category was defined by the nursing career in force at the time of data collection, through the categories of “nurse”, “graduate nurse” and “specialist nurse”[15,16].

Our population was composed of nurses working in health units belonging to the institutions which authorized the study. Units with nursing teams led by head nurses were selected from among these institutions. After the ethical and legal requirements were fulfilled, 1508 questionnaires were sent to the units that met the inclusion criteria. A total of 690 questionnaires were returned, corresponding to a return rate of 45.75%. Nurses agreed to return the completed questionnaires by postal mail in a prepaid envelope.

1.2. Results

The results of the descriptive correlational study and the reliability of the leadership instrument are shown below.

In relation to the values obtained using the measures of central tendency and dispersion, answers referring to what “is characteristic” were heterogeneous, with answers in all points of the 32 items. Means varied between 4.40 and 5.83, while the standard deviation ranged between 1.21 and 1.72, thus denoting a significant dispersion (minimum standard deviation observed> 1.1). This indicated a good discriminative power.

As for the values obtained using the measures of central tendency and dispersion, answers referring to what “should be characteristic” were less heterogeneous than answers referring to what “is characteristic”. Means varied between 5.64 and 6.47, while the standard deviation ranged between 0.763 and 1.213, thus denoting a lower dispersion. This indicated a smaller discriminative power than in the previous scale.

Item-factor correlations without overlap presented moderate values, most of them being above 0.60.
According to Table 2, Cronbach’s alphas obtained for each dimension were above 0.83. The coefficients obtained were 0.83 for the roles of monitor and broker, 0.85 for the role of coordinator, 0.88 for the role of director, 0.91 for the roles of facilitator and mentor, and 0.91 for the roles of producer and innovator. Cronbach’s alpha for the total 32 items of the leadership instrument was 0.96.

Table 2 - Items and Cronbach’s alpha for each dimension of Quinn’s Leadership Model.

| Dimensions (Leadership roles) | Items | Cronbach’s alpha in Quinn (1988) | Cronbach’s alpha in Parreira et al. (2006) | Cronbach’s alpha in this study |
|-------------------------------|-------|----------------------------------|---------------------------------------------|-------------------------------|
| Role of monitor               | 4, 14, 17, 32 | .73                              | .80                                         | .83                           |
| Role of broker                | 3, 13, 18, 27 | .85                              | .79                                         | .83                           |
| Role of coordinator           | 2, 9, 21, 28  | .77                              | .82                                         | .85                           |
| Role of director              | 7, 12, 19, 26 | .79                              | .85                                         | .88                           |
| Role of facilitator           | 6, 11, 24, 31 | .89                              | .87                                         | .91                           |
| Role of innovator             | 1, 10, 22, 25 | .90                              | .90                                         | .90                           |
| Role of mentor                | 8, 16, 20, 29 | .89                              | .87                                         | .91                           |
| Role of producer              | 5, 15, 23, 30 | .72                              | .90                                         | .90                           |

The analysis of the socio-demographic and professional characteristics of the 690 nurses (Table 2) showed that most of them (76.7%) were female. The mean age of the respondents was 34.56 years, with a standard deviation of 8.72 and a median of 33 years, ranging between 22 years and 68 years.

In relation to the professional category, 42.9% (296) of respondents held the professional category of “nurse”, 39.9% (275) were “graduate nurses”, and 10.0% (69) were “specialist nurses” with a mean of 11.8 years in the profession, a mode of 4 years, a standard deviation of 8.2 and a median of 11 years. With respect to the “period of time in the current service”, the nurses in our sample presented a median of 6 years and a mean of 7.5 years, with a standard deviation of 6 years and a mode of 4 years.

Table 3 - Distribution of the sample according to the socio-demographic and professional variables

| Variables              | n    | %   |
|------------------------|------|-----|
| Professional category  |      |     |
| Nurse                  | 296  | 42.9|
| Graduate Nurse         | 275  | 39.9|
| Specialist Nurse       | 69   | 10.0|
| Missing                | 50   | 7.2 |
| Gender                 |      |     |
| Male                   | 119  | 17.2|
| Female                 | 529  | 76.7|
| Missing                | 42   | 6.1 |
| Age (in years)         | Min  | Max | Mean | SD  | Mode | Median |
|                        | 22   | 68  | 34.5 | 8.7 | 26   | 33     |
| Years in the profession| 1    | 40  | 11.8 | 8.2 | 4    | 11     |
| Period of time in the current service (in years) | 1    | 35  | 7.5  | 6   | 4    | 6      |

In relation to leadership perception, Table 4 shows the scores obtained regarding the subordinates’ perception of what “is characteristic” and what “should be characteristic” of the leader and the gap between that which is perceived and that which is expected.
Table 3 shows that all leadership roles perceived by nurses as “characteristic” presented mean scores above 4.94, and that the roles of producer (5.31), director (5.28), mentor (5.27) and coordinator (5.13) presented the highest mean scores. The role of facilitator was the one least perceived (4.94). The minimum and maximum scores of the perception of “characteristic” leadership roles in the leader ranged between 1 and 7.

Regarding the perception of what “should be characteristic” of a leader, we observed that the minimum and maximum values ranged between 2.25 and 7. The expectations of subordinate nurses emphasised the role of director (6.34). In the human relations model, they emphasised the roles of facilitator and mentor (6.33).

The gap between the actual and the expected perceptions of leadership showed lower mean scores in the role of producer (1.15) and higher mean scores in the role of facilitator (1.59).

Table 4 - Minimum, maximum, mean and standard deviation of the perception of leadership roles and the gap between that which “is characteristic” and that which “should be characteristic”

| Leadership roles | Is characteristic | Should be characteristic | Gap |
|------------------|-------------------|-------------------------|-----|
|                  | n     | Min | Max | Mean | SD | n     | Min | Max | Mean | SD | n     | Mean | SD |
| Role of broker   | 582   | 1.00| 7.00| 4.99 | 1.28 | 452 | 2.50| 7.00| 6.21 | .69 | 435  | 1.39| 1.22 |
| Role of facilitator | 594  | 1.00| 7.00| 4.94 | 1.43 | 461 | 2.50| 7.00| 6.33 | .66 | 448  | 1.59| 1.36 |
| Role of innovator | 463  | 2.00| 7.00| 4.98 | 1.12 | 458 | 2.25| 7.00| 6.16 | .66 | 447  | 1.21| 1.03 |
| Role of mentor   | 612   | 1.00| 7.00| 5.27 | 1.43 | 454 | 3.25| 7.00| 6.33 | .64 | 448  | 1.26| 1.36 |
| Role of monitor  | 597   | 1.00| 7.00| 5.08 | 1.23 | 449 | 3.00| 7.00| 6.11 | .69 | 437  | 1.17| 1.20 |
| Role of producer | 598   | 1.00| 7.00| 5.31 | 1.26 | 453 | 2.75| 7.00| 6.28 | .69 | 439  | 1.15| 1.22 |
| Role of coordinator | 604 | 1.00| 7.00| 5.13 | 1.25 | 456 | 2.25| 7.00| 6.32 | .67 | 447  | 1.38| 1.26 |
| Role of director | 602   | 1.00| 7.00| 5.28 | 1.23 | 456 | 2.25| 7.00| 6.34 | .64 | 445  | 1.20| 1.16 |

1.3. Discussion

An overall analysis of the leadership instrument shows that it has satisfactory psychometric properties, which indicates that it is appropriate to assess the eight leadership roles.

The analysis of the results shows that all items have a good discriminative power, presenting a stronger correlation to the factor to which they theoretically belong than to any other factor. This confirms the homogeneity in terms of item content within each factor.

Item-factor correlations without overlap reveal moderate scores, most of them being above 0.60, thus suggesting relative factor interdependence. This reflects a scale that is representative of a construct composed of several leadership roles. It is, therefore, in line with the theoretical model of Quinn’s competing values framework(4), which was at its base.

Internal consistency scores higher than 0.80 were found in the theoretical factors, which shows good internal consistency of the items in each factor(17). They were slightly higher than those found by the author of the Scale(4) and those found in the study conducted in the Portuguese health context(14).

In this study, most nurses (76.7%) were female, thus reflecting the historical trend of the profession in terms of care practice which associates it to women from the middle ages to the present time(18). The respondents’ mean age was 34.56 years, with a standard deviation of 8.72 and a mode of 26 years. This group of nurses had an average age level, but a marked discrepancy of ages (from 22 to 68 years). This may, however, contribute to balancing the teams.

In relation to the perception of leadership, all leadership roles perceived by nurses as “characteristic” revealed mean scores above the midpoint of the scale. The roles of producer, director, mentor and coordinator showed the highest mean scores. On the contrary, the role of facilitator presented the lowest score, although it was still above the midpoint. This partially corroborated studies(3) about the impact of leadership on the effectiveness of hospital organisation. These studies showed a high level of skills, with greater emphasis on the performance of the roles of producer, director and coordinator.
Although these results indicate that nurses recognised the performance of leadership roles, they also indicated a predominance of the rational goal model, given that the roles of producer and director showed higher mean scores. This indicated a greater tendency for control, that is, leaders tended to focus on roles related to the control of processes and productivity instead of focusing more on flexibility, in which the leader performed small adjustments, stabilising aspects concerning human relations while simultaneously dealing with processes and planning issues\(^{3,20}\).

The importance assigned to outsourcing is also an important aspect. These data may reflect the demands of the hospitals with corporate management (EPE). These are highly oriented towards results and external relations, in which the role of the manager focuses more on administration roles and the promotion of a productive work environment.

The fact that the roles of mentor and coordinator were also valued reinforces the health professionals’ awareness of the need to establish rules and procedures that would facilitate the development of projects through empathic orientation. Paradoxically, this fact may also mirror the abundance of rules experienced by the professionals.

Nurses recognised fewer skills in the open systems model given that they showed lower scores in the roles of innovator and broker. This may be explained by the fact that hospital organisations are governed by professionalised bureaucracies\(^{11}\), investing less in innovation and creativity, and focusing more on planning, rules and procedures.

In this context, there is a need to balance skills. In fact, it would be desirable that the head nurse developed skills related to innovation and negotiation in order to facilitate change. Also, a study on leadership styles conducted using a sample of nurses\(^{21}\) emphasised the importance of innovative attitudes, the implementation of new projects and the investment in nurses’ union.

As for the perception of what “should be characteristic” of a leader, mean scores above 6 were found, indicating a high level of demand from nurses. Despite this, some more modest perceptions with minimum mean scores of 2.25 were also found. The expectations of subordinate nurses emphasised the roles of director and coordinator and the human relations model (role of facilitator and mentor). These results may highlight the need felt by nurses to have a leader who promotes new projects, through careful and empathetic guidance, associated with the effective management of such projects, and a leader who is also a facilitator, thus promoting cohesion and team work, and contributing to conflict resolution. These data highlighted the contrasting and paradoxical nature of leadership since these roles are constantly opposed\(^{4,9}\).

The gap between the actual and the desired perceptions of leadership showed greater flexibility, with overall high values in all quadrants, including the quadrant that related to rules and objectives. This may indicate the need for the leader to be a good negotiator and facilitator, one who is able to promote team work and manage interpersonal conflicts. These results reinforced the opinion of some authors\(^{3,20}\) who argued that the leadership process should occur within a context of flexibility. However, they also demonstrate the need to balance the different roles allocated to different quadrants, thus creating a more balanced leadership. Effective leaders are those who can, simultaneously, perform all leadership roles\(^{4,9}\).

2. Conclusion

Due to constant changes in health policies and organisations, together with the demand for increasingly higher levels of quality in terms of professional performance and provision of care, the manager can play a leading role through the promotion of a humanised environment and a permanent accountability of the nursing staff.

The subordinates’ perception of a high level performance of the leadership roles indicates an effective leadership by the leaders.

The lowest scores perceived by nurses with regard to the leader’s role of facilitator suggest the need for head nurses to acquire leadership skills that help them manage interpersonal conflicts and promote cohesion and teamwork within the current context of health care restructuring and decreased nurse staffing levels, which leads to high levels of conflict in the teams.
References

[1] Deninson DR, Hooijberg R, Quinn R. Paradox and performance: Toward a Theory of behavioural complexity in managerial leadership. Organization Science. 1995; 6 (5): 524-540.

[2] Parreira PMD, Lopes A, Silva, A., Parreira F. Eficácia organizacional em contexto hospitalar: A percepção dos gestores Portugueses. Actas da IV Jornada Internacional sobre Representações Sociais: Teoria e Abordagens Metodológicas. 2005.

[3] Parreira PMD Eficácia organizacional em contexto hospitalar: o impacto da complexidade na liderança. Tese de Doutoramento. Lisboa: Instituto Superior de Ciências do trabalho e da Empresa. 2006.

[4] Quinn R E. Beyond Rational Management: Mastering the Paradoxes and Competing Demands of High Performance. San Francisco: Jossey-Bass Inc. Publishers. 1988.

[5] Reto I E, Lopes A. Liderança e Carisma. Lisboa: Editora Minerva. 1991.

[6] Quinn R, Rohrbaugh J. A spatial model of effectiveness criteria: Towards a competing values approach to organizational analysis. Management Science. 1983. 29(3): 363-377.

[7] Hart SL, Quinn RE. Roles Executives Play: CEOs, Behavioural complexity, and firm performance. Human Relation. 1993. 46 (5): 543-547.

[8] Hooijberg RJG, Hunt JG, Dodge GE. Leadership complexity and development of the leaderplex model. Journal of management. 1997. 23 (3): 375-408.

[9] Quinn RE, Thompson M, Faerman SR, McGrath M. Competências gerenciais: princípios e aplicações. 3ª ed., Rio de Janeiro (RJ): Elsevier. 2003.

[10] Have, T. S.; Have, W. T.; Stevens, A. F., Vander Elst, M. e Pol-Coyne, F. (2003). Key Management Models: The Management Tools and Practices that Will Improve your Business. London: Prentice-Hall.

[11] MINTZBERG, H. The Rise and Fall of Strategic Planning. Free Press: New York. 1994.

[12] Melo RCP, Parreira PMD. Liderança em Enfermagem e Competências Relacionais de Ajuda: Um estudo empírico realizado em contexto de saúde. Referência, II Série, 10, Actas e Comunicações do II Congresso de Investigação em Enfermagem, Ibero-americano e de países de língua oficial portuguesa. Escola Superior de Enfermagem de Coimbra. (2009). p. 463.

[13] Orden dos Enfermeiros. As condições de trabalho dos enfermeiros Portugueses. Lisboa: Ordem dos Enfermeiros. 2004.

[14] Parreira PM, Felício MJ, Lopes A, Nave F, Parreira F. Papéis de liderança: um instrumento avaliativo. Revista de investigação em enfermagem. (2006. 13: 3-14.

[15] Decreto-Lei n."437/91, de 8 de Novembro. Carreira de enfermagem.

[16] Decreto-Lei n."412/98, de 30 de Dezembro. Carreira de enfermagem

[17] Hill, MM, Hill A. Investigação por questionário. Lisboa: Edições Silabo. 2008.

[18] Collière M. Promover a vida: da prática das mulheres de virtude aos cuidados de enfermagem. 3ª ed. Lisboa: Sindicato dos Enfermeiros Portugueses. 1989.

[19] Benner, P. From Novice to expert, excellence and power in clinical Nursing Practice. New Jersey: Prentice Hall. 2001.

[20] Lopes, A. Gestão de recursos humanos versus gestão das pessoas: a arte do equilíbrio entre iniciativa e a cooperação nas organizações. ISCTE, Lisboa. 2006.

[21] Higa E, Trevisan M. Os estilos de liderança idealizados pelos enfermeiros: Revista Latino-Americana de Enfermagem. 2005. 13 (1). Disponível em URL: http://www.scielo.br/scielo.php/lideres da enfermagem brasileira (acedido em Março de 2010).

[22] Pereira CMC, Bem-Haja IMS, Ferreira MMF, Rodrigues PMS. Percepção de liderança de enfermeiros prestadores de cuidados: estudo realizado numa unidade hospitalar de Coimbra. Referência. 2008. 8:51-58.

[23] Hersey P, Blanchard K. Psicologia para administradores: a teoria da liderança situacional. São Paulo: Editora Pedagógica e Universitária. 1986.

[24] Santos KMAB, Silva MJP. Comunicação entre lideres e liderados: visão dos enfermeiros. Revista Escola Enfermagem USP. 2003. 37 (2): 97-108.

[25] Galvão CM, Tervizan MA, Sawada NO. A liderança do enfermeiro no século XXI: algumas considerações. Revista Escola Enfermagem, USP. 1998. 32 (4): 302-6.