Nurses leadership evaluation by nursing aides and technicians according to the 360-degree feedback method

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ABSTRACT
Objective: to assess the leadership of nurses of a maternity hospital according to the nursing aides and technicians and the 360-degree feedback method.
Method: a descriptive, cross-sectional study. The population was 19 nurses and 96 nursing aides and assistants. Data were collected from May 2010 to July 2011 using a questionnaire based on the 360-degree method.
Results: the nurses mentioned having a favourable performance in the four studied categories. The nursing aides and technicians disagreed with the recorded leadership performance of the nurses in the category “Communication” and “Support environment.” The responses for the category “Role Model” were favourable in all items, especially PAPEL18. In “Management Style”, the highest favourable rating was 79% for GESTAO16.
Conclusion: the categories “Communication” and “Support Environment” revealed a greater fragility of the nurses in comparison to the categories “Role Model” and “Management Style.”
Keywords: Employee performance appraisal. Leadership. Nursing, team.

RESUMO
Objetivo: Avaliar a liderança dos enfermeiros de uma maternidade com auxiliares/técnicos de enfermagem segundo o método 360º. 
Método: Estudo descritivo, de corte transversal. A população do estudo foi de 19 enfermeiros e 96 técnicos/auxiliares de Enfermagem. A coleta foi realizada por meio de questionário baseado no método 360º de maio de 2010 a julho de 2011
Conclusão: As categorias “Comunicação” e “Clima de Apoio” mostraram maior fragilidade dos enfermeiros na liderança da equipe quando comparadas com as categorias “Modelo de Papel” e “Estilo de Gestão”.
INTRODUCTION

The concept of leadership is ancient, complex and multifaceted. Leadership is largely studied because of the growing number of organizations and the emergence of academic disciplines related to administration in different areas of knowledge(1).

Leadership is the skill and extraordinary ability to influence people(2). A concept of leadership, known as the Great Man Theory, evolved into the study of the leadership traits of great leaders who dealt with situational issues and issues of productivity, quality and job satisfaction(3) with competence and emotional intelligence(4).

The exercise of leadership in nursing is inherent to the organisation of work in healthcare. It directly reflects the interaction of health and nursing teams in the pursuit of results from healthcare actions and interventions in a synergistic process of enabling the sum of individual efforts through collective work based on the construction and feedback of routine interactions. To ensure that the management work process effectively solves problems, the nurse, as a manager and leader, assumes the role of articulator and conductor of team motivation(5).

To perform the role of leader and manager efficiently, the nurse must have communication skills and knowledge of the different styles of management and leadership and of the organizational environment(1). Management communication is a resource to successfully promote interpersonal relationships at work, detect problem situations and process organizational changes(6).

Other factors that interfere with the quality of leadership are environment, role model and management style. The way leaders exercise their functions and the ability to generate an environment of mutual trust, together with team motivation, foster job satisfaction, increase their influence on the team and create good organizational relations. Similarly, interpersonal relations and the possible outcomes are compromised when leaders do not have these abilities(5-8).

Natural leaders and managers of nursing staff should develop their potential and construct the leadership skills required for the communication process and the environment that supports the exercise of leadership, which subsequently improves the role models and management styles of nurses in different organizations.

In this process of continuously improving the management process through leadership, organizations must provide the environment for managers-leaders to develop their leadership potential and apply the performance assessment process in the institutional scenario to measure the quality of the provided service and maximize the results.

There are several tools to assess management performance, namely direct assessment by the immediate leader, objective evaluation, joint evaluation between the appraiser and the appraised, competency assessment, self-assessment, 180-degree feedback and 360-degree feedback(9-10).

The 360-degree evaluation method or 360-degree feedback is a strategic people management tool that helps to develop the key competencies of employees at work. It is considered a 360-degree method because the same collaborator can be evaluated by all or most of the members of a team - managers, directors and peers - in order to obtain as much information as possible to identify improvement opportunities of the collaborator’s performance. This form of performance appraisal has been used by several organizations to identify strengths and weaknesses, correct attitudes that impair acceptable professional performance, and provide information about the future, which in turn enables self-development and the development of the service and the organization(9).

The objective of this paper is to evaluate the leadership of nurses of a public maternity hospital according to the nursing aides and technicians using 360-degree feedback.

MATERIAL AND METHODS

A descriptive, cross-sectional study carried out in a maternity hospital in Manaus, state of Amazonas, northern Brazil, from May 2010 to July 2011.

The maternity hospital is accredited by the World Health Organization as being Baby-friendly, and is characterized as a large-sized public healthcare institution (186 beds) and a benchmark of high-risk pregnancy care.

The study population consisted of 115 nursing professionals, of which 96 were nursing aides and technicians and 19 were nurses, who had been working at the rooming-in sectors for at least one year. Nursing professionals who were on holiday or any type of leave were excluded.

The data were collected using two questionnaires based on the 360-degree feedback process. The first data collection tool was applied to the nursing aides and technicians so they could assess the team leaders (nurses). The second instrument was applied to the manager-leader nurses for a self-assessment.

The questionnaires contained 24 questions divided into four assessment categories for the exercise of leadership (communication, generating a support environment, role model and management style). The answers ranged from Very Infrequent (MPF) to Very Frequent (MF) with values that ranged from 1 to 5 for each item. Data were analysed using the statistical software R and Minitab 14 with
the dispersion indicators (central measures and standard deviation) and the Fisher’s exact test was used to establish the independence of the responses. Where: H₀ - Proportion of same answers for both and H₁ - Proportion of different answers for both. The decision rule for rejecting H₀ was equivalent to the p-value < α=0.05 (fixed).

The project was approved by the Comitê de Ética em Pesquisa of the Universidade Federal do Amazonas under the CAAE 0471.0.000.115-09, as part of the project entitled, *Processo de feedback da equipe de enfermagem de uma maternidade de Manaus.*

**RESULTS**

Of the participating professionals, 83.48% were part of the category nursing aides and technicians and 16.52% were categorized as nurses. To facilitate data analysis, an aggregation to the responses was applied to condense the information and deliver less fragmented results. This aggregation associated the alternatives F and MF as favourable (values 4 and 5, respectively), MPF and PF as unfavourable (values 1 and 2, respectively) and AV as indifferent.

When observing the responses of the nurses in the four categories, “Communication” (Table 1) showed favourable responses in all items, with percentages above or equal to 74%. Ninety-five percent of the answers to the item COM9 were favourable. The categories COM5, 12 and 24, presented the same percentage of 79% of favourable answers from the professionals. However, 21% of the nurses responded unfavourable or indifferent to these categories. This reveals a high variability between responses of these professionals for these categories.

For the category “Support Environment”, most of the answers were favourable for APOIO3, namely *I create conditions and encourage my subordinates to make suggestions* (68.5%), APOIO4, *I provide conditions that lead to teamwork* (79%), APOIO8, *I honestly and openly recognize a job well done* (90%), APOIO10, *I search for solutions to the problems of my subordinates* (95%), APOIO11, *I guide and encourage my subordinates to work in teams* (90%) and APOIO15, *I provide the conditions for them to feel free to ask questions* (90%).

It should be noted that the responses to APOIO2, *I encourage my subordinates to supervise my own work* and APOIO4, *I provide conditions that lead to teamwork*, from the professionals varied significantly.

The category “Role Model” (Table 2) presented favourable answers for all the items, with percentages above 74%; especially PAPEL18 with 100% favourable answers.

For the category “Management Style”, the favourable answers exceeded 68% for the items GESTÃO14, *I participate in meetings to facilitate understanding and synergy* (68%), GESTÃO20, *I regularly analyze the results and propose solutions* (79%), GESTÃO21, *I help my subordinates to achieve goals* (79%), GESTÃO23, *I provide the conditions for them to work in teams* (90%), GESTÃO24, *I provide the conditions for them to feel free to ask questions* (90%)

<table>
<thead>
<tr>
<th>Categories</th>
<th>Item</th>
<th>Answers</th>
<th>Favourable (F/MF)</th>
<th>Indifferent (AV)</th>
<th>Unfavourable (MPF/PF)</th>
<th>Average</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM1</td>
<td>I provide honest feedback about my performance</td>
<td></td>
<td>14 (74%)</td>
<td>4 (21%)</td>
<td>1 (5%)</td>
<td>3.789</td>
<td>0.918</td>
</tr>
<tr>
<td>COM5</td>
<td>I give to my subordinates the information they need for their work</td>
<td></td>
<td>15 (79%)</td>
<td>3 (16%)</td>
<td>1 (5%)</td>
<td>4.053</td>
<td>0.848</td>
</tr>
<tr>
<td>COM9</td>
<td>I listen to my subordinates before making decisions that affect our work</td>
<td></td>
<td>18 (95%)</td>
<td>1 (5%)</td>
<td>0 (0%)</td>
<td>4.316</td>
<td>0.582</td>
</tr>
<tr>
<td>COM12</td>
<td>I regularly communicate the results and direction of work to my subordinates</td>
<td></td>
<td>15 (79%)</td>
<td>2 (10.5%)</td>
<td>2 (10.5%)</td>
<td>3.789 (*)</td>
<td>1.134 (*)</td>
</tr>
<tr>
<td>COM24</td>
<td>I always try to listen to the views of my subordinates, including feedback on my style of supervision</td>
<td></td>
<td>15 (79%)</td>
<td>4 (21%)</td>
<td>0 (0%)</td>
<td>4.105</td>
<td>0.737</td>
</tr>
</tbody>
</table>

Source: Research data.

COM = Communication; SD = Standard Deviation
course corrections when needed (68.5%), GESTÃO21, I oversee the performance of the area through standards and comparisons with other organizations (69%) and GESTÃO22, I set goals based on customer requirements (74%). The highest number of favourable answers (79%) were for the items GESTÃO16, I test understanding to ensure unified comprehension, and GESTÃO19, I seek to identify and overcome barriers that reduce effectiveness. There was no significant variability between the answers in this category.

A review of the answers of the nursing aides and technicians for the category “Communication” revealed that the averages were lower compared to the averages presented by the nurses, that is, 62% of the nursing aides and technicians disagreed with the statements of their leaders. The item COM5, he/she provides the information that I need for my work (56%) showed a consensus between the responses of the leaders and their subordinates.

As for the “Support Environment” (Table 3), the research showed lower averages than the averages of the nurses’ responses.

In relation to “Role Model”, the averages of the technicians/aides were above 3, which was similar to the averages of the nurses: PAPEL6, he/she clearly define what I expect from my subordinates (79%), PAPEL7, I’m an example to be followed in terms of leadership, as an educator and facilitator (74%), PAPEL13, I show commitment to the goals and strategic direction of the company (90%), PAPEL18, I am respectful of others (100%), and item PAPEL23, he/she uses worker processes that facilitate continuous improvement (74%).

Table 4, for the category “Management Style”, shows that most of the favourable answers exceeded 50%. The item GESTÃO21 (1.276) indicates a greater variability between responses of the professional category nursing aides and technicians.

Subsequent to the results described above, the Fisher’s test was applied to assess the independence between the responses of the nurses and nursing aides and technicians.

For “Support Environment”, the aides and technicians agreed with the nurses in items APOIO2 (0.2081), APOIO4 (0.2712), APOIO8 (0.0404), APOIO10 (0.0244) and APOIO17 (0.0165). For the variable “Role Model”, the participants agreed with the questions PAPEL7 (0.3186), PAPEL13 (0.1276), PA-

<table>
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<th>Answers</th>
<th>Average</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAPEL6</td>
<td>I clearly define what I expect from my subordinates</td>
<td>15 (79%) 4 (21%) 0 (0%)</td>
<td>3.895</td>
<td>0.567</td>
</tr>
<tr>
<td>PAPEL7</td>
<td>I’m an example to be followed in terms of leadership, as an educator and facilitator</td>
<td>14 (74%) 4 (21%) 1 (5%)</td>
<td>3.895</td>
<td>0.809</td>
</tr>
<tr>
<td>PAPEL13</td>
<td>I show commitment to the goals and strategic direction of the company</td>
<td>17 (90%) 1 (5%) 1 (5%)</td>
<td>4.211</td>
<td>0.976</td>
</tr>
<tr>
<td>PAPEL18</td>
<td>I am respectful of others</td>
<td>19 (100%) 0 (0%) 0 (0%)</td>
<td>4.474</td>
<td>0.513</td>
</tr>
<tr>
<td>PAPEL23</td>
<td>I use worker processes that facilitate continuous improvement</td>
<td>14 (74%) 4 (21%) 1 (5%)</td>
<td>3.737</td>
<td>0.892</td>
</tr>
</tbody>
</table>

Source: Research data.
SD = Standard Deviation.
**Table 3** – Dispersion indicators among nursing aides and technicians for the category “Support Environment” - Amazonas, 2011

<table>
<thead>
<tr>
<th>Categories</th>
<th>Item</th>
<th>Favourable (F/MF)</th>
<th>Indifferent (AV)</th>
<th>Unfavourable (MPF/PF)</th>
<th>Average</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOIO2</td>
<td>He/She encourages me to monitor my own work</td>
<td>43 (45%)</td>
<td>24 (25%)</td>
<td>29 (30%)</td>
<td>3.208</td>
<td>1.264</td>
</tr>
<tr>
<td>APOIO3</td>
<td>He/She creates the right conditions and stimulates me to make suggestions</td>
<td>32 (33%)</td>
<td>25 (26%)</td>
<td>39 (41%)</td>
<td>2.833</td>
<td>1.303</td>
</tr>
<tr>
<td>APOIO4</td>
<td>He/She provides conditions that lead to teamwork</td>
<td>51 (53%)</td>
<td>20 (21%)</td>
<td>25 (26%)</td>
<td>3.271</td>
<td>1.365</td>
</tr>
<tr>
<td>APOIO8</td>
<td>He/She honestly and openly recognizes a job well done</td>
<td>51 (53%)</td>
<td>12 (13%)</td>
<td>33 (34%)</td>
<td>3.187</td>
<td>1.409</td>
</tr>
<tr>
<td>APOIO10</td>
<td>He/She seeks solutions to the problems related to my work</td>
<td>54 (56%)</td>
<td>17 (18%)</td>
<td>25 (26%)</td>
<td>3.323</td>
<td>1.244</td>
</tr>
<tr>
<td>APOIO11</td>
<td>He/She guides me and stimulates me to work in a team</td>
<td>53 (55%)</td>
<td>22 (22%)</td>
<td>22 (23%)</td>
<td>3.438</td>
<td>1.23</td>
</tr>
<tr>
<td>APOIO15</td>
<td>He/She provides conditions for me to feel free to ask questions</td>
<td>60 (62%)</td>
<td>20 (21%)</td>
<td>16 (17%)</td>
<td>3.573</td>
<td>1.203</td>
</tr>
<tr>
<td>APOIO17</td>
<td>He/She creates conditions for an environment of openness and trust</td>
<td>58 (60%)</td>
<td>16 (17%)</td>
<td>22 (23%)</td>
<td>3.51</td>
<td>1.273</td>
</tr>
</tbody>
</table>

Source: Research data.  
SD = Standard Deviation.

**Table 4** – Dispersion indicators among nursing aides and technicians for the category “Management Style” – Amazonas, 2011

<table>
<thead>
<tr>
<th>Categories</th>
<th>Item</th>
<th>Favourable (F/MF)</th>
<th>Indifferent (AV)</th>
<th>Unfavourable (MPF/PF)</th>
<th>Average</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>GESTÃO14</td>
<td>He/She participates in meetings to facilitate understanding and synergy</td>
<td>60 (62%)</td>
<td>17 (18%)</td>
<td>19 (20%)</td>
<td>3.531</td>
<td>1.222</td>
</tr>
<tr>
<td>GESTÃO16</td>
<td>He/She tests my understanding to ensure unified comprehension</td>
<td>43 (45%)</td>
<td>29 (30%)</td>
<td>24 (25%)</td>
<td>3.177</td>
<td>1.142</td>
</tr>
<tr>
<td>GESTÃO19</td>
<td>He/She seeks to identify and overcome the barriers that reduce effectiveness</td>
<td>52 (54%)</td>
<td>24 (25%)</td>
<td>20 (21%)</td>
<td>3.385</td>
<td>1.155</td>
</tr>
<tr>
<td>GESTÃO20</td>
<td>He/She analyzes the results and regularly proposes course corrections when needed</td>
<td>58 (60%)</td>
<td>22 (23%)</td>
<td>16 (17%)</td>
<td>3.542</td>
<td>0.994</td>
</tr>
<tr>
<td>GESTÃO21</td>
<td>He/She oversees the performance of the area through standards and comparisons with other organisations</td>
<td>42 (44%)</td>
<td>26 (27%)</td>
<td>28 (29%)</td>
<td>3.156</td>
<td>1.276</td>
</tr>
<tr>
<td>GESTÃO22</td>
<td>He/She establishes goals based on customer requirements</td>
<td>68 (71%)</td>
<td>20 (21%)</td>
<td>8 (8%)</td>
<td>3.802</td>
<td>0.8287</td>
</tr>
</tbody>
</table>

Source: Research data.  
SD = Standard Deviation.
The nurses defined their performance as favourable in the four studied categories. In the category “Communication”, the percentages exceeded 74%, especially the item COM9 with 95%, where the nurses stated they listened to their subordinates before making decisions that can negatively affect the work. The answers to the questions of the four studied categories help organizations understand the management of nursing services and care and can be considered to implement 360-degree feedback to assess managers who need to change their organizational behaviour.

A study that applied the 360-degree feedback appraisal process among medical residents of an out-patient paediatric unit, with the participation of evaluators of the nursing staff, patients and their families and the self-evaluation of the residents, showed that the actors in the interaction of healthcare have different perspectives on the professionalism and the interpersonal relationships and communication skills of the residents. It was also noted that the collected information can guide feedback that will enable residents to develop their interpersonal and communication skills and provide better patient care(11).

For the category “Support Environment”, it was also observed that most of the responses were favourable, exceeding 68.5%, especially the item APOIO17 where 100% of the nurses stated they created conditions for an environment of openness and trust.

The aides and technicians disagreed in terms of the performance of their leaders in the categories “Communication” and “Support Environment”. Among the main disagreements, 43% of the aides and technicians mentioned that the leaders did not properly develop their communication skills with regard to listening and giving feedback, while 67% were indifferent or unfavourable to item APOIO3, which refers to the creation of conditions and stimulus for making suggestions.

The results show the managerial skills that must be improved by the manager-leader nurses. However, the results also reveal that each professional category perceived the same competency in different ways. It was also noted that the nurses are not fully adapted to this type of trial, which was revealed in the item APOIO2, when 42% of the nurses were unfavourable to questions that referred to encouraging the subordinates to assess the work of their leaders.

Although this type of evaluation measures the perception that the workers have of their leaders, the nurses should not interpret the results as absolute and personal truths, but as a self-assessment instrument for manager-leader nurses that consequently favours self-reflection and the development of new managerial skills.

A study on the organizational leadership of nurses in the hospital environment(12) analyzed how the technicians/aides of a hospital perceive the leadership of nurses and highlights the dissatisfaction of these professionals with regard to listening, considering that 48% of the respondents reported that their leaders did not listen to their queries and suggestions. Another similarity is the fact that 50% of the respondents stated they only received feedback on how they had performed their work “sometimes”, “rarely” or “never”.

Research carried out in São Paulo with 19 nurses on the conceptions that managing nurses at a university hospital had in relation to management communication revealed the dissatisfaction of practitioners in relation to the communication process. The study showed that the nurses have different conceptions of network communication or multi-channel communication, considering that 42% of nurses reported that communication is based on dialogue and interaction with the staff and 58% defined managerial communication as a form of vertical transmission of information, especially for the fulfilment of orders to execute actions and interventions(13).

The nurses use managerial communication as a source of information and to delegate functions for the performance of their activities. They assume the role of decision makers and appoint the team members the role of passive receivers, which configures an autocratic management style.

In relation to the categories “Management Style” and “Role Model”, the nurses and technicians/aides agreed that the nurse effectively assumes the leadership role. For the nurses, the aides and the technicians, some aspects promote the performance of leaders, such as a clear definition of what is expected from the workers, commitment to the goals that must be achieved, analysis of the results and attempts to identify and address barriers that affect nursing care.

A north-American study questioned how nurses understand the roles of managing nurses. The study found that nurses want to be respected, especially with regard to communication, and feel the need to be taken care of by the managing nurses to narrow the gap between the nurses-
ing team members and the managing nurses and increase job satisfaction\textsuperscript{(10)}.

In contrast, 78\% of a group of professional aides and technicians stated that communication was a management tool that helped the team easily carry out their activities, and that nursing leadership involves decision-making, conflict resolution, the coordination of knowledge and professional communication, interpersonal relations, and organization and planning of work processes\textsuperscript{(12)}. However, it is important to note that the time of professional practice, the kind of relationship the nurses have with their teams and the conduct of the workers directly interfere with the behaviour of leaders and influence their management style\textsuperscript{(15)}.

An analysis of the “Role Model” of the leaders showed that the aides and technicians agreed with the management and leadership role of the nurse. They stated that nurses in the management position are committed to the goals of the institution and the nursing service, and that they offer strategic guidance, maintain a respectful attitude towards employees, use different processes to facilitate the continuous improvement of work and are a leadership example that should be followed.

Although 43\% of the aides and technicians stated they were unhappy with the listening barrier of their leaders, 60\% of them considered that the nurses were examples to be followed. This fact suggests that nurses who fail to develop the skills of management communication may develop other skills and competencies that make them respected and admired by the members of the teams they manage. According to the aides and technicians, the managing nurses show interest, commitment and concern for developing other skills and competencies that make them respected and admired by the members of the teams they manage.

However, as in the case of people management, there is a global need to evaluate the performance of health professionals in clinical practice, and 360-degree feedback has been considered a reliable and validated instrument to measure the performance of healthcare professionals\textsuperscript{(16)} necessarily linked to management and, consequently, to leadership.

## CONCLUSIONS

The 360-degree feedback method enabled the self-assessment of the professional nursing categories and the feedback of other team members.

In the category “Communication”, most of the nurses stated they know how to communicate in terms of divulging the results and offering guidance, while the aides and technicians disagreed with this statement.

In the “Support Environment” for performing activities, the nurses stated that as leaders they create conditions to provide an environment of openness and trust. The aides and technicians, however, believed that this did not happen in their work environments.

For the category “Role Model”, all the professional nursing categories reported that the manager-leader nurses are committed to the goals of the nursing service, that they direct the employees with competence, skill and aptitudes by means of different work processes in the pursuit of continuous improvement, and that they are an example of leadership that should be followed.

Regarding the adopted “Management Styles”, nurses and technicians/aides agreed that their leaders know how to identify possible barriers that hinder the effectiveness of the work; test the understanding of employees, aiming at the best possible comprehension; and set out the goals to be achieved in order to meet the requests of the public who use the services of the maternity hospital.

By evaluating the performance of nurses using 360-degree feedback, it was possible to conclude that the categories “Communication” and “Support Environment” show the greater fragility of the manager-leader nurse in comparison to the categories “Role Model” and “Management Style”.

The evaluation of the feedback process between the nursing professionals provided grounds to diagnose the four categories and offered the professionals in charge of nursing management and leadership the opportunity to know their potential and weaknesses. Finally, the evaluation shows the strengths and weaknesses of the managing nurses and the need to monitor the weaknesses pointed out by the technicians and aides and maintain their strong points to enhance management learning.

The limitation of this study is the evaluation of only four categories related to leadership, which emphasizes the need for future studies with different performance appraisal models that address a range of aspects and styles of leadership and provide contributions to the better performance of the nurse as a manager and natural leader of the nursing staff.

## REFERENCES


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