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# **Job Satisfaction and Retention of Nursing Staff: The Impact of Nurse Management Leadership**

September 2006

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## **Key Implications for Decision Makers**

### **For Policy Makers**

- To improve professional development strategies for nurse managers, increase financial resources invested in action learning programs designed to improve their leadership and management skills while implementing organizational changes that improve nurses' professional practice environment and psychological experience at work. These changes would include evidence-based factors that impact retention of nurses. The key characteristic of such a program is that the learning comes from the actions participants take to solve real problems.

### **For Nursing Decision Makers**

- To increase retention and the likelihood that younger and better-educated nurses who leave will return, nursing leaders should work with human resources departments and union representatives to develop policies and strategies that better fit younger nurses' work and career expectations.
- To increase nurses' retention, put in place strategies and daily practices that ensure positive perception of nurse managers' leadership, affective commitment, and job satisfaction.
  - To increase positive perception of nurse managers' leadership, focus on the following development issues: managing performance issues; involving others in the process; managing conflict; communicating a long-term vision; making clear and specific plans; delegating adequately; and giving feedback on performance.
  - To increase affective commitment, increase time invested by nurse managers in participative change management processes using evidence-based diagnosis and action plans developed with the nursing team, and including shared responsibility for implementing changes and measuring impacts.
  - To increase job satisfaction, focus on professional support and recognition; balanced workload; appropriateness and quality of technical equipment, material resources, and physical work environment; nurses' participation in hospital affairs; and systems problem-solving related to the delivery of services from support services.
  - To increase the number of nurses having the firm intent to stay (only 50 percent in our samples), put emphasis on professional development opportunities and improve scheduling, team dynamics, leadership and communication, and job characteristics ("hassles" linked to systems issues).
- To deal more systematically with systems problems ("operational failures"), put in place permanent forums of clinical and non-clinical directors and associate directors that would focus on three priorities: (1) to network key people with regard to the implementation of system problem-solving processes; (2) to develop shared values regarding the clinical mission of the university hospital; and (3) to put in place feedback systems that will make support services employees more aware of the importance of their job regarding the quality of care and the security of patients. The main goal is to implement permanent multilevel processes that will address the structural as well as the cultural causes of systems problems.

## Executive Summary

Motivated by the nursing shortage, an action research project was conducted in a recently merged teaching hospital in the province of Quebec, referred to in this report as the university hospital). Research questions were related to (1) the key factors associated with the intent to stay or to leave; (2) the impact of leadership style on the nurses' perception of the practice environment and the psychological experience at work (empowerment, job satisfaction, and organizational commitment); (3) the "system problems" affecting care units; and (4) the impact of an "action learning" intervention on nurse managers' leadership development, nurses' perceptions of the work environment, and intent to stay or leave and retention rates.

Between 2003 and 2006, 21 nurse managers started the program and 11 completed all steps. The project, done by seven units, unfolded in three phases: diagnostic, intervention (action learning), and evaluation one year later. The diagnostic phase was composed of two main activities: (1) nursing staff completed a questionnaire and participated in focus groups; and (2) nurse managers participated in a 360° feedback process that evaluated their leadership. The intervention phase included (1) discussion of the diagnostic report based on staff survey and focus groups analysis and recommendations; (2) a program of 10 action learning workshops of four hours each; and (3) individual coaching sessions with the nurse managers. We assessed the outcomes by repeating the staff surveys, focus groups, and the 360° leadership evaluation three months after the completion of the action learning workshops.

### Results

#### *Key factors of intent to stay or to leave and the role of leadership*

In the pre-test and post-test samples, the same proportion of nurses intended to leave (16 percent), and approximately one-third were uncertain about staying or leaving. This means that only 50 percent of nurses in our samples had the firm intent to stay. Those intending to leave were younger, better-educated, and less-experienced. The analysis of reasons given by the uncertain nurses and by those who intended to leave showed that, about 40 percent of the time,

the organization could do something about the intention to leave, namely by addressing issues of professional development, schedules, team dynamics, leadership and communication, and job characteristics (“hassles” linked to systems issues). We observed that global satisfaction at work, affective organizational commitment, and a positive perception of the nurse manager’s leadership differentiated nurses who intended to stay from those who intended to leave. With regard to job satisfaction, the main sources of dissatisfaction were lack of professional support and recognition; nurse/patient ratio and overload; lack of technical equipment and material resources; poor physical work environment; and poor relationships with support services. We also found that, in the same work environment, nurses characterized by “internal” work motivation tended to have higher global job satisfaction, stronger affective commitment, and a better perception of the nurse manager’s leadership than nurses who had “external” work motivation.

Results show moderate to strong significant relationships between nurses’ perception of the nurse manager’s leadership and support ability and their perception of the practice environment and psychological experience at work. These results clearly suggest that investments in developing nurse managers’ leadership and support abilities have a positive impact on nurses’ perceptions and psychological experience at work. Analysis of 16 360° feedback reports showed the following leadership and management behaviours were in greater need of development: managing performance issues; involving others in the process; managing conflict; communicating a long-term vision; making clear and specific plans; delegating adequately; and giving feedback on performance.

### ***Systems issues***

Sources of job dissatisfaction mentioned above are a mix of “nursing department problems” (lack of resources, etc.) and systems problems. When nurse managers talked about systems issues, they referred to the many “day-to-day hassles” they experienced with support services (housekeeping, pharmacy, transport, human resources, finance, etc.). Systems problems were

viewed by most participant nurse managers as chronic, pernicious, and unsolvable. They generated feelings of powerlessness and helplessness regarding finding productive ways to deal with them. Our observations confirm what recent research results have shown: healthcare organizations do not prioritize the improvement of the performance of their support services towards their nursing clients, since the nursing staff generally finds ways to provide these services to preserve the patients' security and quality of care. We recommend decision makers put in place systemic and structured approaches, at the global and local levels, to solve cross-boundary problems.

### ***Impacts***

Self-reported learning by participants (particularly related to visionary, coach, facilitator, and negotiator roles), and some statistical results, tend to confirm that action learning is a more effective way to foster professional development and knowledge transfer than classical approaches such as academic courses or in-house training seminars with external consultants. The evaluation of the project showed many significant positive impacts on the nurses' perception of nurse managers' leadership and support ability, staffing and resource adequacy, and leadership and human resources management satisfaction for all units and, in some units, on the perceptions of the nursing foundations for quality of care, affective commitment, and global organizational commitment.

This study did not reveal a short-term impact on the intent to stay and turnover rates, but it clearly showed that action learning approaches are effective, not only for professional development but also for the implementation of concrete improvements in the work environment related to nurses' job satisfaction, organizational commitment, and perception of professional practice environment. We recommend the implementation of leadership and management development programs, based on action learning principles and strategies, that assist nurse managers to be more effective problem solvers in complex settings, including developing the ability to influence the resolution of systems issues.

## CONTEXT

### **Problem: external and internal shortage of nurses**

This study began five years after the merger of five teaching hospitals in the province of Quebec, referred to in this report as the university hospital). The administrators, staff, and physicians were dealing with implementing the merger and were also challenged by reducing a large and growing deficit. Simultaneously, the university hospital was developing plans to relocate to a new single site. This was happening within a larger provincial and national context of severe and persistent external and internal shortages of nurses and other human resources and the perception of severe fiscal restraint.

Some attribute the external shortage of nurses to the fact that not enough people are attracted to the profession.<sup>1</sup> In addition, the current cohort of staff nurses is aging at the same time as the aging population creates increasing demand for care. A large study demonstrated the problem pervades many countries.<sup>2</sup> It is estimated that by 2011 there will be a shortage of 78,000 nurses and by 2016 it will be 113,000.<sup>3</sup> Many studies also show the negative impact of nurse shortages on quality of care<sup>4 5 6 7</sup>

The internal shortage is created by organizational conditions, which are more or less the responsibility of external funding decisions and the institution's policies, such as large-scale layoffs and deterioration of the work environment.<sup>8 9</sup> The restructuring implemented in recent years to contain costs and increase productivity has not translated into better quality of care or into successfully attracting and retaining nurses.<sup>10 11 12 13</sup> Concretely, the nursing shortage is revealed through a high nurse-to-patient ratio, an increase in overtime work, and a high rate of sick leaves due to burnout. Many recent reports highlight the negative impact of work overload, overtime, and negative working conditions on satisfaction and intent to leave. A high rate of staff turnover also translates into important costs for the organization.<sup>14 15</sup> Many researchers have reported that leadership is one of the rare organizational factors directly influencing turnover or the intent to leave.<sup>16 17 18 19 20 21 22</sup> Tourangeau and colleagues (2003) call for interventions to develop effective nurse leaders.<sup>23</sup> Research results show the pivotal role of the nurse managers<sup>24</sup> in acute care settings and recommend emphasizing the support given to those key people in terms of professional development and problem-solving in complex systems. For that reason this project focused on the development of leadership capacity to implement conditions for nurses' job satisfaction and retention.

## Research questions

This project examines the impact of the “action learning” approach to professional development at the level of front-line managers, aiming to implement changes in their care unit and developing their leadership capacity. Over three years (2003-2006), three waves of seven nurse managers engaged in an action research process, for a possibility of 21 complete cases. Each wave had a diagnostic phase, an intervention phase, and an evaluation phase. The research questions were:

1. What are the key factors related to the retention of nurses in a university hospital context?
2. What are the relationships between the nurses’ perception of their work environment, their intent to stay or to leave, and the leadership style of the nurse managers?
3. What are the dynamics and the organizational factors that impact the solution of “systemic problems” which affect the care units?
4. Does an “action learning” program with the nurse managers have a significant impact on (a) the development of their leadership and change management skills; (b) nurses’ perception of the work environment in the participating units; and (c) nurses’ intent to stay or to leave and the employee turnover rate?

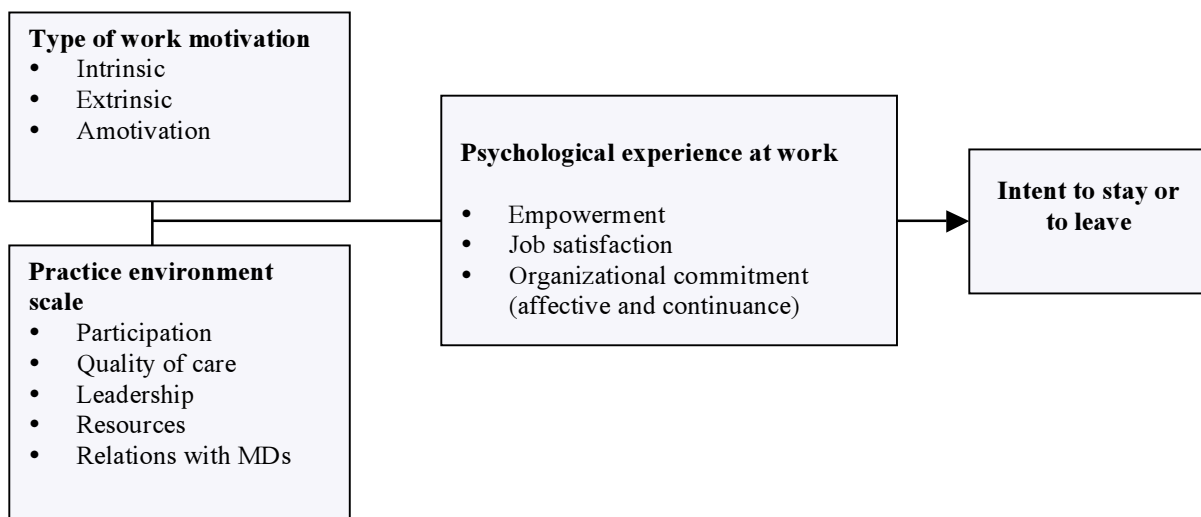
Previous researchers have found intent to stay or to leave is directly linked to the decision to leave or to stay (employee turnover).<sup>25</sup> Elangovan (2001) showed job satisfaction precedes commitment, and organizational commitment is the only variable directly linked to employee turnover. Therefore, we included organizational commitment in our framework. Other nursing researchers have demonstrated the impact of empowerment on job satisfaction and organizational commitment.<sup>26</sup> The variables chosen to measure the nurses’ psychological experience at work were empowerment, job satisfaction, and organizational commitment.

Within this framework, individual and organizational characteristics are antecedents of the psychological experience at work. Individual characteristics include socio-demographic variables and dispositional affectivity. Researchers have found job satisfaction is associated with many personality traits, such as openness to change,<sup>27</sup> self-esteem, generalized self-efficacy, locus of control and emotional stability,<sup>28</sup> and work motivation types.<sup>29</sup> Since such individual factors are less-frequently studied in this type of framework, we chose the “work motivation types” to advance knowledge concerning the individual attributes that influence the perception of the work context as well as their psychological experience at work. In addition,

researchers have published a series of studies in which they examined the organizational characteristics that have a positive effect on retention and other dimensions and result in hospitals being considered “magnets.”<sup>30 31 32</sup> Researchers in this field generally measure the characteristics of these positive work environments using a version the Nursing Work Index.<sup>33 34 35</sup> Finally, since this project focused on the development of leadership capacity, the leadership style of the nurse managers who participated in the program was measured. The theoretical framework underlying research questions #1 and 2 is presented in figure 1.

Figure 1

Theoretical framework linked to factors influencing intent to stay or to leave



The third research question related to “system issues.” Nurses report that a key organizational variable related to the work satisfaction is ability to solve systems problems. Systems problems are “operational failures”<sup>36</sup> related to transactions with different departments providing support services to nursing care units, such as housekeeping, laundry, patient transportation, human resources, financial departments, pharmacy, etc. The objective was to better understand the organizational dynamics underlying this phenomenon.

Finally, related to the fourth research question, we developed a strategy based on action learning principles that would impact the leaders’ development; their ability to establish changes that had a positive impact on the nurses’ perception of the professional practice environment; their psychological experience at work; and consequently the intent to stay or to leave and the turnover rate. While some administrators recommend managers take advanced degrees in administration, nurse managers often report the knowledge gained there is disconnected from the practice setting and the program is not relevant or helpful to deal with their daily pressing

concerns.<sup>37 38 39</sup> In addition, the skills managers require are more likely developed over time and learned through trial and error.<sup>40</sup> Yet it is difficult to learn from experience because there are few opportunities for managers to talk to each other about their practice, and many find it difficult to set aside time for reflection on common problems.<sup>41</sup>

Based on a national survey of nurse manager performance, the executive advisory board (2001) recommended strengthening the support for nurse manager's problem-solving. They suggested the recurring nature of the problems the managers faced indicated an inability to resolve the underlying problems. In general, their recommendations focused on manager training and mentoring and on tools to improve decision-making. Our approach in this action research project was designed to attend to these features. The theory-of-action approach to reflective practice used in the action learning intervention focuses on effective problem-solving and on increasing learning effectiveness. It provides a solid theoretical framework for analysing difficult situations in practice, for identifying counterproductive behaviours, and for inventing and producing more effective behaviours.

## **IMPLICATIONS**

Related to the first two research questions, one-third of nurses in our sample were uncertain about staying and 16 percent intended to leave. Thus only 50 percent of nurses in our sample had the firm intent to stay. This was the case at the pre-test and still the case at the post-test. Forty percent of the time, nurses who were uncertain or intended to leave gave reasons that are controllable by the organization. These reasons are lack of knowledge and skill development; unsatisfying schedules; nursing team dynamics; leadership and communication; and job characteristics ("hassles" link to systems issues). Within our theoretical framework, we found the factors that best predict intent to stay or to leave are global job satisfaction; affective commitment; and nurse managers' leadership and support ability. This is consistent with many previous research results.

To increase the level of job satisfaction, the following five sources of dissatisfaction should be prioritized by decisions makers: (1) increase professional support and recognition; (2) provide balanced workloads; (3) ensure the appropriateness of technical equipment and material resources; (4) improve the quality of the physical work environment; and (5) solve problems related to the delivery of services from support departments. Also, decision makers should establish management practices that foster affective commitment, notably with regard to nurses' participation in hospital affairs and the five sources of dissatisfaction mentioned above. Finally, to improve the level of nurse managers' leadership and management skills, nurse managers need

the time and means to develop their leadership and management skills using action learning approaches and putting emphasis on the following behaviours: (1) managing performance issues; (2) involving others in the process (participative management); (3) managing conflict; (4) communicating a long-term vision; (5) making clear and specific plans; (6) delegating adequately; and (7) giving feedback on performance.

With regard to the systems issues (research question #3), most nurse managers saw systems issues, mainly related to the delivery of support services (housekeeping, pharmacy, transport, human resources, finance) as chronic, pernicious, and unsolvable and generating feelings of powerlessness and helplessness regarding finding productive ways to deal with them. Partly linked to the silos created by the current organizational structure, decision makers should put in place global as well as local structures and problem-solving methods for resolving the causes of systems issues. This should be a priority for hospital-wide improvement programs.

Finally, the impacts of the intervention (research question #4) demonstrated that the action learning approach is an effective way to foster leadership development and organizational changes. Self-reported learning by participants was related to four roles: visionary (implementing changes, searching for innovation); coach (leading and communicating, managing performance problems); facilitator (implementing participative approaches to change management); and negotiator (networking). Positive and significant improvements were perceived by nursing staff with regards to many dimensions of the practice environment and their psychological experience at work, notably (1) nurse managers' ability, leadership, and support; (2) staffing and resource adequacy; and (3) leadership and human resources management satisfaction. This project shows action learning approaches are effective not only for professional development but also for the implementation of concrete improvements in the work environment. However, this study revealed no short-term impact, either on the intent to leave or on turnover rates. We recommend the implementation of leadership and management development programs, based on action learning principles and strategies, that assist nurse managers to become more effective problem solvers in complex settings, including developing their ability to influence the resolution of systems issues.

## **APPROACH**

### **Action research approach**

Action research as a research process can be characterized as follows: (1) it has a constructivist perspective;<sup>42 43</sup> (2) the researcher is an active and deliberate participant within the social system being studied;<sup>41 44 45 46</sup> and (3) the research process cycle is iterative<sup>41 45 47 48</sup>. The present project

unfolded in three phases: diagnostic (pre-test), intervention (action learning), and evaluation (post-test) one year later. The diagnostic phase was composed of two main activities: (1) nursing staff on participating units completed a questionnaire and participated in focus groups; and (2) the nurse managers participated in a 360° feedback process that evaluated their leadership. The intervention phase included (1) discussion of the diagnostic report based on staff survey and focus group analysis and recommendations; (2) a program of 10 action learning workshops of four hours each; and (3) individual coaching sessions with the nurse managers. We assessed the outcomes by repeating the staff surveys, focus groups, and 360° leadership evaluation three months after the completion of the action learning workshops. Between January 2003 and April 2006, the process was carried out with three waves of seven units each.

### **Population and sample**

The target population was approximately 50 nurse managers and 3,000 nurses. In each wave, convenience samples of seven nurse managers representing seven care units volunteered to participate. We recruited using internal e-mails and through presentations to the management teams of different nursing missions and special meetings of nurse managers at the university hospital. Due to retirement (two), job changes (four), unit mergers (one), leaves of absence (two), and transfers (one), only 11 of the 21 nurse managers completed all steps. No one attributed her or his withdrawal to the intervention. The sample for the analysis of the main research objective (question #4) is composed of the managers and staff from those 11 units. However, the database created for the statistical analyses related to research questions #1 and #2 includes the data from all responding nurses in the 21 care units that began the study.

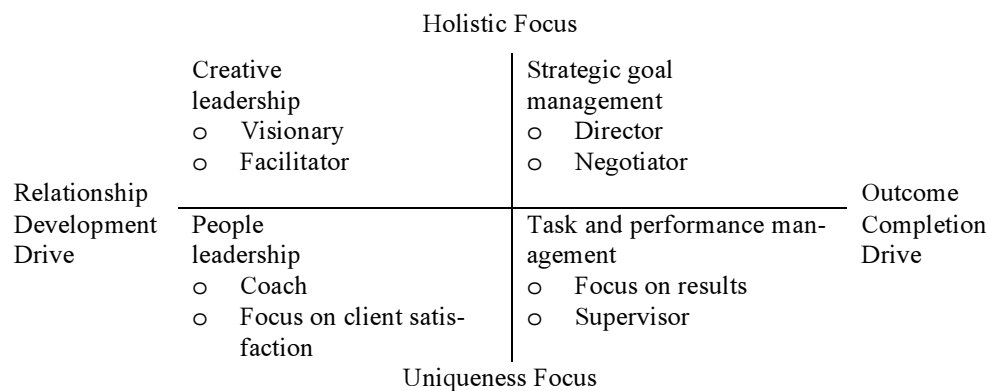
At the pre-test phase 379 nurses completed the questionnaires (response rate 42 percent), and at the post-test 160 nurses working in the 11 remaining care units completed the questionnaires (response rate 31 percent). Response rates observed in each wave can be found in Appendix 1 and socio-demographic characteristics of the samples are presented in Appendix 2. Most participants were less than 40 years of age, prepared at the diploma or baccalaureate level, had worked in the hospital more than two years, held full-time positions, and worked rotating shifts. Among the 11 nurse managers who completed the full process, four of them were in their 30s and seven were in their 40s. Half of them had less than five years of experience as nurse managers and all of them had 15 to 30 years of experience in nursing. Ten of the 11 nurse managers had been in their current management position for less than two years.

## Instruments

We used surveys with nursing staff on participating units to obtain the pre-test and post-test data for analysis and also to provide information to nurse managers in the diagnostic phase. Focus groups were also organized to help researchers and nurse managers interpret the survey results and to develop an action plan. The questionnaire was composed of several validated tools to measure work motivation type, nurses' perception of the practice environment, empowerment level, global job satisfaction, sources of satisfaction and dissatisfaction, organizational commitment, intent to leave or to stay, and reasons for being uncertain or having the intent to leave. Appendix 3 lists the scales, sub-scales, and questions used in the questionnaire, and the precise definition of all measured variables can be found in Appendix 4. To measure the nurse managers' leadership style, we used the 360° feedback questionnaire created by Cacioppe and Albrecht (2000).<sup>49</sup> This instrument, called "Leadership and Management Development Profile," was translated into French.<sup>1</sup> Nurse managers were asked to identify four sources of feedback: their self-evaluation, their immediate supervisor, four colleagues, and four employees. The nurse managers chose the colleagues and employees who were then invited to complete the questionnaire. The managers received their 360° feedback report during a one-hour interview that allowed them to deepen their interpretation of the results and to target two or three development priorities. The conceptual framework of the instrument is shown in figure 2.

Figure 2

LMDP - Functions and Roles of Leadership and Management



## Intervention: Action Learning Program

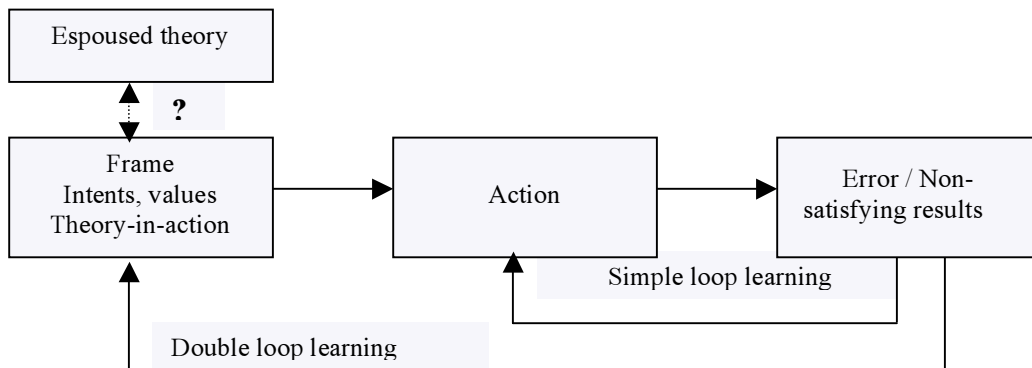
At the beginning of each series of action learning workshops we gave the nurse managers a detailed portrait of the evaluation made by their staff about their work environment and a report of the 360° feedback. We tried to encourage the nurse manager to establish a process of participative

<sup>1</sup> Mario Cayer, PhD, professor, department of management, Université Laval

planning and implementation of change with her/his staff. These action plans were central to the action learning workshops. The evaluation of the managers' leadership styles allowed them to connect their development issues with the action learning process. The approach used with wave 1 focused on the following principles: exploration of assumptions, creativity in ways of working on the project and developing competencies, openness to complexity, development of dialectical thinking, and attention and presence given to themselves, to others, and to the context. During the action learning workshops in wave 1, the facilitator used a four-level framework called "domains in questioning:" the "I" (intentions, beliefs, etc.), the "we" (culture, relationships, etc.), the "it" (structures, procedures, etc.), and the "system" (cause-effect relationships, system patterns, etc.). (See Appendix 5 for more precise definitions). This framework was used to help the participants to define, with more precision, the nature of the multiple and inter-related sources of the problems they discussed with the group.

Based on feedback from wave 1, the approach used with waves 2 and 3 was based more explicitly on the work of Argyris and Schön.<sup>50 51 52 53 54 55</sup> It used the *theory-of-action approach to reflective practice* to support the nurse managers in moving their projects forward and in solving problems they encountered along the way. According to this approach, when a manager is confronted with a puzzling situation or problem, when her normally skilful action does not produce the expected outcome, she first frames or names the "problem" to be solved. She then acts to solve the problem as framed and monitors the consequences of her actions to see if she has solved the problem. The "frames ► actions ► consequences" cycle continues until the problem is solved or goes away. The theory-of-action framework assumes that individuals design their actions to achieve their intentions and have theories about how to design their actions in various situations. It distinguishes two types of theories of action. Our *espoused theory* is the one we offer to explain or justify our actions. Our *theory-in-use* is the one that actually informs our actions. When we do not produce what we intend or when we make "errors," we can learn to produce our intentions by looking at how we were thinking in the situation to act as we did. The goal is to reflect **on** how we were reflecting **in** action to identify any counterproductive features of our theory-in-use; that is, how we are thinking or acting that might be limiting our ability to achieve our intentions. The challenge is to move beyond our espoused theories (those explanations we give when we are asked to explain our actions) to identify the rules we are actually using to design our actions. Figure 3 summarizes this approach.

Figure 3  
Action learning general framework



Effective problem-solving requires individuals to behave in ways that are consistent with the generation of valid information so people can make free and informed choices to which they will be internally committed to monitoring as the solutions are implemented. In difficult situations people often behave in ways which are counterproductive to effective problem-solving. For example, they make evaluations or attributions that are not illustrated or tested but assumed to be true, advocate positions without inquiry, speak at high levels of abstractions, and withhold information. In the action learning workshops, we used the strategies recommended by Argyris and Schön to help the nurse managers identify their theories-in-use and counterproductive features and to begin to identify more effective ways to think and act. Their projects were oriented to solving “problems” that had been identified on their unit (based on questionnaire results) and to develop their leadership/management skills (priorities based on the 360° feedback reports). The basic format of each action learning workshop included a progress report from each nurse manager on her change/improvement project, some piece of theory, and some application of the theory to particular problems or cases. Each nurse manager presented at least one case, and all cases were analysed using the theory-of-action approach to reflective practice. Everyone received feedback on her case. Other key concepts, notably Kegan and Lahey’s (2001)<sup>56</sup> “seven languages,” (see Appendix 6) were also used to provided nurse managers with concepts and skill training designed to increase their ability to learn how to be more effective communicators in difficult situations. The action learning workshops aimed also to build “communities of practice”<sup>57 58</sup> where people with similar positions and job responsibilities could come to know each other and build sufficient trust to share important problems and experiences to be helpful to each other in learning to become more effective. Finally, a key feature of our support for the nurse managers, beyond the workshops themselves, was regular individual coaching. Researchers suggest professionals can use help to understand what they want to do and how to go about doing it.<sup>59</sup> Coaching provides another person to talk to, to bounce ideas off, and helps to clarify and solve issues within a safe and confidential consulting relationship.

## **Results analysis and diffusion to decision makers**

Quantitative and qualitative data were collected from the nursing staff as well as from the nurse managers. The data collected from the nursing staff during the diagnostic and evaluation phases (questionnaires and focus group results) were used for (1) drafting the reports given to the nurse managers to assist them in the development of their action plans; and (2) supporting the statistical analyses related to the research questions. The data collected from the nurse managers were used in two ways: (1) to give them a detailed report on their 360° feedback; and (2) to create the case summaries based on all the data collected and analysed about them and their staff during the program. It is important to note that each case summary was validated with the nurse manager. An example of a case summary can be found in Appendix 7.

The decision-making partners met five times during the project. Each meeting lasted about three hours and progressive results were discussed. At the two final meetings (September 13 and October 5, 2006), recommendations and plans for dissemination were discussed and improved. Following these meetings, the nursing executive committee decided to present main recommendations to the university hospital's executive team to ensure implementation. We also presented the leadership model and results at a university hospital "nursing management open forum." The project and some results from wave 1 were also presented at the Registered Nurses' Association of Ontario's third annual international conference (November 2003). Finally, we organized a symposium involving the university hospital's director of nursing and three academics<sup>2</sup> at the 2004 annual congress of *L'ordre des infirmières et infirmiers du Québec*. The theme was "search for innovative solutions to the dilemmas of nursing work" and many decision makers in nursing attended.

## **RESULTS**

### **Nurses' key retention factors (research question #1)**

#### ***Intent to stay or to leave: reasons why and demographic profile***

In the pre-test (n=379) and post-test samples (n=160), the same proportion of nurses had the intent to leave (16 percent). Approximately one-third (36 percent at pre-test and 33 percent at post-test) were uncertain about leaving. This means only 50 percent of nurses in our samples had the firm intention to stay. Forty percent of given reasons were controllable, which means the organization could do something to decrease the number of nurses being uncertain or intending to leave because of these reasons. The exact reasons the nurses gave for being uncertain or for intending to leave are listed in Appendix 8. The main ones are presented in table 2.

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<sup>2</sup> Clémence Dallaire, Inf., PhD, Université Laval, Mélanie Lavoie-Tremblay, Inf. PhD, McGill Nursing School and Martine Mayrand-Leclerc, RN, PhD, Université du Québec.

Table 2

Main reasons for being uncertain or for intending to leave

	Non-controllable reasons	Controllable reasons
Uncertain	Advancement opportunities Type of patients Return to school	Scheduling Job characteristics Team cohesion or dynamic <sup>1</sup>
Intend to leave	Advancement opportunities Type of patients Compensation and benefits	Scheduling Job characteristics Team cohesion or dynamic Perceived nurse managers' lack of competencies

Finally, nurses who intended to leave were different from those who intended to stay with regard to their demographic profile. Almost 50 percent of those intending to leave were younger, better-educated, and less-experienced (see Appendix 9). T-test results showed they do not differ from older and less-educated nurses with regard to job satisfaction and affective commitment. However, they have a better evaluation of their nurse manager's leadership (2.7 compared to 2.5: significant difference at one tailed). Therefore, the retention of younger and better-educated nurses is not only a matter of job satisfaction, commitment, and perceptions of leaders. This suggests that work and career expectations in generations X and Y need to be better understood to improve retention or retrieval strategies.

### ***Predictors of intent to stay or to leave***

Most of the variables in the theoretical framework, particularly in the pre-test sample, are significantly related to the intent to stay or to leave (see Appendix 10). Discriminant analyses with data from the pre-test sample (n=379) showed global satisfaction at work, affective organizational commitment, and perceptions of the nurse manager's ability, leadership, and support (practice environment scale sub-scale) differentiated the two groups<sup>3</sup> (see table 3).

Table 3

Means observed for the three predictors of intent to stay or to leave

	<b>Intent to stay</b> (n=170)	<b>Intent to leave</b> (n=59)
Global satisfaction at work (out of 6) <sup>1</sup>	4.47 (satisfied)	3.44 (dissatisfied)
Affective commitment (out of 7)	4.04 (neutral)	3.18 (negative)
Management ability, leadership, and support (out of 4)	2.71 (rather dissatisfied)	2.29 (dissatisfied)

Results of detailed analysis of satisfaction and dissatisfaction sources (pre-test data from waves 2 and 3) show the main sources of dissatisfaction are linked to organizational issues: nurse-to-patient ratio, workload, technical equipment and material resources, physical work environment, and relationships with support services (see results in Appendix 11).

### ***Influence of work motivation type***

As shown in detail in Appendix 12, there are (1) strong, significant positive relationships between “internal” motivations and affective commitment, global job satisfaction, and perception of nurse managers’ leadership; (2) weak, significant relationships between “external” motivations and continuance commitment; and (3) strong, significant negative relationships between amotivation (external) and global job satisfaction and perception of nurse managers’ leadership. Using multivariate analysis of variance, we examined differences between weak and strong work motivation types and the variables that were strongly correlated.<sup>5</sup> For each motivation type, we ran the analysis relating the mean of the “strong” group and the “weak” group with each of the three variables under study, and we did an “F” test to verify if the mean differences were significant (see Appendix 13). The results demonstrated that, *in the same work environment, nurses internally motivated tended to have higher global job satisfaction, stronger affective commitment, and better perception of the nurse managers’ leadership than nurses who were externally motivated.* This conclusion highlights the fact that change management strategies need to be designed to take into account types of work motivations.

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3 To do this analysis, 229 participants were kept (170 in the “Stay” group and 59 in the “Leave” group). A discriminate function analysis was calculated, with a  $\chi^2(3) = 57.20, p < .01$ . The discriminate function analysis counts for 22% of the inter-group variance. The correlation coefficients between the predictors and the discriminate function analysis indicate that the best predictor to distinguish employees, who want to stay in their job, or leave it, is the global satisfaction at work (0.89). The affective commitment comes out with a coefficient of 0.74 while the sub-scale of the PES ‘nurse manager ability, leadership and support’ obtains a coefficient of 0.54. The discriminating function allows us to classify the respondents in the right group in 78.6% of cases. Related to the post-test data, the group intending to leave was too small (n=25) to permit valid analysis; the results tended to confirm the conclusion with the pre-test data.

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4 Based on the distribution of results, we use the following means interpretation grid:  
6 points Likert scale: 1 to 3.99 = dissatisfied / 4 and more = satisfied  
7 points Likert scale: 1 to 3.99 = negative / 4 to 4.99 = neutral / 5 and more = positive  
4 points Likert scale: 1 to 2.99 = dissatisfied / 3 and more = satisfied

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5 The sample was divided into two groups for each work motivation type: ‘strong’ (>1 standard deviation from the sample mean and ‘weak’ (<1 standard deviation from the sample mean). This eliminated nurses with scores around the group mean.

**The nurse manager’s leadership influence on the nurses’ perception of the practice environment and their psychological experience at work (research question #2)**

Firstly, results observed on the five practice environment scale sub-scales (pre-test and post-test) indicate a state of dissatisfaction (see Appendix 14). Respondents indicated they were most dissatisfied with “staffing and resources adequacy” and “nurses’ participation in hospital affairs” and least dissatisfied with “collegial Nurse-Physician Relations.” Staffing and resources are “structural” issues (shortage and budget limitations) and participation in hospital affairs is a “cultural” issue relating to responsiveness to nurses’ concerns, nursing’s place in the organization, and decision-making power. In relation to “empowerment,” nurses have high confidence regarding their competencies and have a neutral (pre-test) or a slightly positive (post-test) internalization of organizational goals. However, they have a negative perception of their autonomy (perception of control). At the post-test, the nurses’ “organizational commitment” is negative, except for their responses for “affective commitment.” Despite these patterns, nurses indicated global satisfaction with their job. Given the responses on the other scales, we interpret this to mean they are satisfied with their “clinical work with patients and families.” Second, we examined the extent to which psychological experience at work and perception of the practice environment is linked to the perception of nurse managers’ management ability, leadership, and support. The correlations show moderate to strong significant relationships (see Appendix 15). These results clearly suggest that investments in development of nurse managers’ management ability, leadership, and support skills have a positive impact on the nurses’ perceptions. To determine which leadership skills need improvement, we completed a detailed analysis of 16 360° feedback reports using the triangulation technique between the questionnaire scores and analysis of written comments on the surveys.<sup>6</sup> For these 16 nurse managers, table 4 presents the main development issues from the 16 leadership and 16 management behaviours measured.

Table 4  
Main nurse managers’ development issues

<b>Leadership development priorities</b>	<b>Management development priorities</b>
<ul style="list-style-type: none"> <li>○ Managing performance issues</li> <li>○ Involving others in the process</li> <li>○ Managing conflict</li> <li>○ Communicating a long-term vision</li> </ul>	<ul style="list-style-type: none"> <li>○ Making clear and specific plans</li> <li>○ Delegating adequately</li> <li>○ Giving feedback on performance</li> </ul>

<sup>6</sup> Qualitative analysis results were based on an inter-rater procedure that ended with a 90 % agreement at the second iteration with regard to the classification of written comments related to strengths and weaknesses into the categories of the 360° instrument

### **“System issues” (research question #3)**

As indicated above, the nurses’ perceptions of their practice environment were generally negative, and their affective commitment was neutral for those who intended to stay and negative for those who intended to leave. We believed this might be explained by a mix of “nursing department problems” (lack of resources, participative management, etc.) and “system problems,” which are related not to the nursing department itself but to the function of support services. When nurse managers talked about systems issues, they referred to the many “day-to-day hassles”<sup>7</sup> they experienced with support services (housekeeping, pharmacy, transport, human resources, finance) or physicians within the university hospital that they relied on to provide quality patient/family care and do their management work. Examples given were unclean nursing units, poor access to medications and lab results, conflict over access to beds, difficulty working with human resources department (dealing with the unions on performance issues or change projects, human resources policies that are implemented without consultation, the desire for standardization in human resources when nurse managers feel “one size does not fit all”), and costs assigned to their budgets by finance when they have no control over them. The research team approached the subject of systems issues with each wave of nurse managers as it arose and provided support for the work they wished to do. Each wave of nurse managers dealt with the systems issues in a different way.

#### *Wave 1 - “Tried and Abandoned”*

A special half-day workshop was conducted with the nurse managers to examine the restraining and driving forces at play in their trying to deal with the systems issues. They identified twice as many *restraining forces*, namely, nursing history and culture which created difficulties with power, politics, and strategy; the capacity to sell their expertise; the isolation of nursing as a group into six missions; the isolation of the nurse managers; having no time for analysis of their individual or collective situations; having no tools to measure the impact of systems problems on nurse-sensitive patient outcomes; the tendency to commiserate in nursing management meetings rather than taking steps to solve problems; competition for resources among all departments; and frequent organizational changes in a very large organization where one loses contacts and does not know who to go to. The *driving forces* were the number of nurse managers; common problems; support from the nursing executive committee; this action research process; and the willingness to change. They remarked that they reported the problems to their associate directors of nursing on a regular basis but nothing much came of that. Despite

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<sup>7</sup> Carly Pepler: « Nurses’ Workload Hassles Not Captured By Nursing Intensity Measures ». Internal report. UH Nursing department, 2001. In this paper, Dr. Pepler notes three types of hassles: threats to patient care, nurses’ well-being and relationships with other discipline and departments.

making a plan with the researchers during the special workshop and one associate director of nursing simultaneously announcing she would begin a process to deal with the systems issues at one site where there were many reported problems, no follow-up was made to a first meeting with concerned departments. The systems problems were viewed by the nurse managers in wave 1 as chronic, pernicious, and unsolvable and generating feelings of powerlessness and helplessness regarding finding productive ways to deal with them.

#### *Wave 2- "Why Bother?"*

Systems issues for wave 2 nurse managers were present but generally not a major issue they wished to pursue. One nurse manager dealt successfully with some systems issues as part of her project using short-term solutions for particular issues. The resolution of these issues was of the "fix-it" variety, which Argyris (1990) characterizes as "single-loop learning." The rest of the nurse managers only mentioned systems issues in passing. To explore systems issues in more depth, the nurse managers in one action learning workshop were asked to focus on three factors this study had identified as important related to intent to stay or to leave and to give examples of how the organization did/did not support these factors. The chief findings that relate to systems issues and their resolution were that there were no communication practices in place that fostered transactions through which the partners could build the organization together by resolving the unit's cross-departmental issues. Four of the five nurse managers reported non-supportive actions such as budget constraints, "ignorance" about the impact on staff of the finance staff's suggestions for reducing costs, staff shortages, and "no time" for participation or communication about problems. All five nurse managers in wave 2 agreed with the statement that "systems issues... are pernicious, persistent, and unsolvable..." and they "generate feelings of powerlessness with respect to finding ways to deal with them."

#### *Wave 3 - "Tried and Succeeded"*

The three managers who completed wave 3 were from one of the university hospital's smaller sites. The nurse manager who had begun wave 3 and who transferred into the small site had great credibility among her peers. She surfaced a systems issue which affected her unit's daily functioning daily, namely the bed management process. She met with the associate director of nursing and shared her observations about the bed management practices and how they might be done differently and more like the other sites in the university hospital. The associate director of nursing discussed this issue with all nurse managers and co-ordinators and then told them she expected them to meet as a group each day and solve the bed management issues together. They started to meet, and within a week they could see that their collective deliberations were very fruitful. The systems issues were viewed as a collective problem and solutions were found.

Communication was vastly improved, they could influence the bed allocation process, and they soon began to discuss other common, problematic systems issues. This initiative was successful because it greatly affected everyone on this site, it was a daily preoccupation, a mechanism (daily meetings) was mandated by the associate director of nursing, and the nurse manager who took the lead had credibility.

In summary, the nurse managers in this study had limited success or willingness to deal with the daily systems issues that characterized life on the care units. The ever changing and turbulent environment combined with budget cuts made it difficult to address issues that crossed departmental boundaries. Although there was interest on the part of the nursing executive committee to learn of the nurse managers' dilemmas with systems issues, the research team was not aware of any sustainable steps to deal with the unit-generated daily systems issues. Given the growing preoccupations in patient safety locally and nationally, one wonders if these systems issues were reframed as "operational failures" would attract more attention to their resolution. Although this study did not measure the frequency of systems failures, other studies have. Tucker (2004) reported that she observed one operational failure, which she defined as disruptions or errors in the supply of necessary materials or information to employees, every 74 minutes, or 6.5 failures every eight hours when she spent 239 hours shadowing 26 different nurses at nine hospitals. The median estimated cost was \$117US per failure, and approximately \$95US/hour per nurse was lost to operational failures. The most significant failures in terms of frequency and impact were those that crossed organizational boundaries. This was evident in the nurse managers' descriptions of systems issues at the university hospital.

Tucker (2004) also noted that in 44 percent of the failures, nurses responded as if the situation was an expected part of their work routine. She also reported in the 2004 article that healthcare organizations do not prioritize the improvement of the performance of their support services towards nursing personnel, since the nursing staffs generally find ways to provide these services to preserve the patients' security and quality of care. A staff nurse from the study clearly said "we have to compromise to get the system to work."

#### **The action learning program's impact (research question #4)**

##### ***Impact on the development of nurse managers' leadership skills***

We have classified the nurse managers' objectives in the action learning program into the eight roles constituting the 360° feedback instrument. Their main preoccupations (see Appendix 16) were concentrated around four roles: visionary, coach, facilitator, and to a lesser extent negotiator. We used two sources of information to evaluate the impact of the action learning

program on developing nurse managers' leadership and management skills: the nurse managers' (n=11) individual interviews at the end of the program, and T-tests with 360° feedback results (pre-test and post-test). Appendix 17 presents a classification of self-reported learning according to the 360° instrument categories. The managers' main self-reported learnings were related to their initial objectives.

With respect to the *visionary* role, some participants said they were more aware of the importance of values transmission and long-term vision clearly articulated to the goals ("This is the key: something about which your belief is profound. In my case, the patient focus means also the caregiver focus"). Others reported learning that efficient change management means "being aware of issues, helping people voice their concerns, developing goals and plan, selling the change, and finding proper support." Some reported they "learned to think differently, to see different points of view, to think through problems, to reflect before acting." With regard to the *coach* role, which had the most comments, nothing was reported related to "developing staff" and "providing positive feedback." Some referred to issues related to "providing feedback on performance:" "learned about the needs of nurses to have more feedback; reports that feedback is now two-way." The managers' main self-reported learning related to "leading and communicating." For example, they commented about "being more in tune with what the staff find difficult," "listening to staff," and being "more sensitive to the complex nature and forms of communication and the need to make the invisible aspects of the leader's work more evident to the staff." Some other comments point out the "managing performance problems" role, for example "needs to strengthen administrative aspects like disciplining" and "there is a need to deal with problem staff. The staff needs more supervision." In connection with the facilitator role, most of the managers' comments were linked to "participative management." For example, they said "The importance of keeping staff up-to-date with what is happening regardless of the business; to get the staff involved in the changes and explore their feelings about them; staff needs to own issues in order to have them involved in sorting them out; team success is increased by communication, consultation, public agreement." Finally, the managers said learning about the negotiator role was mainly related to "influencing people on the political arena" (networking, being aware of the amplitude and the limitation of their influence, having the support of other departments, etc.).

The action learning program did have an impact according to the managers' self-report. Kirkpatrick (1998)<sup>61</sup> proposed a grid for training program evaluation that consists of four categories: "smile," learning, transfer, and organizational impacts. It raises the question: if the participants complete the program with a "big smile" (the evaluations of satisfaction of the

action learning workshops were very high) and many reported “learnings” directly related to their initial objectives, do “transfer” and “organizational impacts” matter? For the transfer question, we only have pre-test and post-test data on the quantitative 360° feedback for six participants due to attrition from the study and a low response rate for the 360° feedback post-test in some cases. A Mann-Whitney U test applied with those six complete cases reveals that, in one case, the post-test means were significantly higher for the role of “client-centred.” For one other manager, the means related to the role of visionary, director, negotiator, “creative leadership,” and “strategic goal management” were significantly higher. On that unit, we observed the greatest number of significant differences in nurses’ perception of the practice environment and psychological experience at work. We must conclude that, in most available cases (four out of six), those assessing nurse managers following the action learning workshops did not see a transfer of learning.

### ***Impact on nurses’ perception of work environment and psychological experience at work***

The nurse managers targeted specific change/improvement projects for implementation during the action learning program. For example, in wave 1, the managers wanted to reorganize roles of staff, improve unit meetings, improve communication with physicians, or create planning processes. In wave 2, they wanted to implement a performance appraisal system, create a task force to resolve issues of importance, develop the leadership of assistant nurse managers, improve work organization, or ensure continuity of care in relation with staff rotation. Finally in wave 3, some of the preoccupations were about violence, quality of communication within the team, workload, or high level of intent to leave. To determine whether the action learning program had fostered significant “organizational impacts” (Kirkpatrick 1998) or “visible changes” for nursing staff, we completed t-tests on the pre-test and post-test data from nine units for all variables. We included in the t-test analysis the scores on the “leadership and human resources management satisfaction scale,” a new scale ( $\alpha = 0.81$ ) composed of six of the 12 items used in the questionnaire to provide more precision about the sources of satisfaction and dissatisfaction.<sup>8</sup> There were many positive and some negative significant differences. All results are presented in Appendix 18.

When the three waves are analysed together (pre-test  $n = 379$  and post-test  $n = 160$ ), there are positive improvements related to “nurse manager ability, leadership, and support” ( $t = -1,99, p < .05$ ), “staffing and resources adequacy” ( $t = -2,06, p < .05$ ), and “leadership and

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<sup>8</sup> This new scale is composed of the following six items: leadership and communication style, support and recognition, direction and control, autonomy and professional development, relationship within the nursing team and schedule.

human resources management satisfaction” ( $t=-2,43$ ,  $p<.05$ ). There are also similar significant differences for five units in wave 2 for “nurse manager ability, leadership, and support” ( $t=-2,85$ ,  $p<.05$ ) and “leadership and human resources management satisfaction” ( $t=-2,02$ ,  $p<.05$ ). Finally, one unit in wave 3 (unit 19) had also significant improvements related to nursing foundations for quality of care ( $t=-2,06$ ,  $p<.05$ ), global results at the practice environment scale ( $t=-2,01$ ,  $p<.05$ ), affective commitment ( $t=-4,32$ ,  $p<.01$ ), and global organizational commitment ( $t=-2,69$ ,  $p<.05$ ). These results support the hypothesis that an action learning intervention has a positive significant impact on factors that best predict the intent to stay or to leave. Traditional approaches to professional development very rarely show that kind of impact.

***Impact on the intent to stay or to leave and on turnover rates***

Despite the positive changes in the pre-test and post-test surveys and the managers’ self-reported positive impact on their leadership skills, the program had little short-term impact on the intent to stay or to leave. This is confirmed by the analysis of turnover rates (see table 5). The total turnover rates (transfers and leaves from the university hospital) were calculated for the participating units and also for 17 other comparable units for the following periods: two years before the intervention, one year before, the year of the intervention, and the year after (the wave 3 2006 data are not yet available). Table 5 shows global results (see Appendix 19 for details).

Table 5  
Global turnover rates

	2 years before	1 year before	<b>Workshop year</b>	1 year after
Wave 1 (3 units)	14.2%	14.2%	21.6%	13.7%
Wave 2 (5 units)	11.2%	13.4%	10.8%	17.0%
Wave 3 (2 units)	9.4%	14.4%	22.5%	Not available
TOTAL	11.8%	14.0%	17.9%	15.4%

The turnover rates increased during the intervention year for waves 1 and 3 and decreased for wave 2. Is it possible the nurse managers’ change processes caused “turbulence” in the work environment during the intervention year and more nurses decided to leave? This phenomenon should be explored in further research. Among the comparable units, the turnover rates were higher in four units, similar in three units, and lower in two units (these two units are situated in a small hospital where the turnover is usually low). The turnover rates for the year after the intervention (2006 data not available for two units) are higher in three units, similar in one unit, and lower in three units. Therefore, there is little evidence that this action learning program decreased either the intent to leave or the turnover rates, but many contextual and personal

dynamics may have affected nurses' decision to leave. If structured and well-supported local efforts made by nurse managers to improve the nurses' perception of the work environment and their psychological experience at work do not have significant impact on intent to leave as well as on turnover rates, what else should be added to those efforts? How could this intervention designed to support nurse managers be improved?

We suggest that improvements could be made in relation to the participant selection, the action-research design, and the intervention. To decrease the level of attrition, more in-depth interviews should be made with interested nurse managers and their immediate supervisor to better ensure that the context, the participant's workload, and the organizational planning for the near future will permit completion of the program. To increase the impact of the action research process, a program could be designed to involve all strategic actors whose responsibilities and decision-making areas impact nurses' job satisfaction and retention by putting in place multilevel interventions. In addition, we could include resources in the project to establish and facilitate the work of an executive committee (or other senior-level body) that has the mandate to resolve systems issues. At the grass-roots level, launching and follow-up activities should be added to make sure nurses better understand the objectives of the program and that their participation is required to meet the objectives. In terms of research questions, we should stop investing time in documenting factors associated with job satisfaction and retention and use the knowledge already available to produce unit-based diagnosis and emphasize why some nurse managers are successful and some are not in managing change processes that impact nurses' job satisfaction and retention. Finally, the design of the intervention should include the use of more structured tools and assistance to help nurse managers engage the nursing team in planning, monitoring, and evaluating changes, while making sure the chosen targets are well-aligned with research results related to job satisfaction and retention key factors.

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