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CLINICAL & BASIC RESEARCH

Comparison between Heads of Nursing and Nursing Administration Students in the Sultanate of Oman regarding Education for Nurse Administrators

Gillian White

مقارنة بين رؤساء التمريض وطلاب إدارة التمريض في سلطنة عُمان فيما يتعلق بتوفير التعليم لمسئولي التمريض

جيليان وايت

الملخص: الهدف: لبحث مستقبل إدارة التمريض من خلال التحضير لمراجعة رئيسية للمنهج الدراسي الحالي لدراسة الدبلوم في سنة واحدة في إدارة التمريض بمعهد التمريض الخاص في عُمان. الطريقة: دراسة من جزأين لمعرفة 1) الأدوار والمهارات والكفاءات المطلوبة لمسئولي التمريض 2) شاكلة القيادة مع عينتين مناسبتين هما: مسئولي التمريض وطلاب إدارة التمريض. وحُلل كل جزء على حدة، ثم قورنت مقارنة المجموعتان من حيث التشابه والاختلاف. النتائج: كان رؤساء التمريض أكثر عرضة لوصف الأدوار والاهتمام المبني على المهام، مع التركيز على حل المشاكل، في حين ركز الطلاب على الوظائف والعمليات. أراد كلا الفريقين أن يكون التمريض معروفا بقانون لقواعد السلوك المهني، وأن تكون هناك جمعية للتمريض ذو سلطات قوية. وأظهرت مقارنات شاكلة القيادة بأن مسئولي التمريض يتمتعون بالنضج والخبرة العملية، في حين كان طلاب التمريض مثاليين، مع نزعات تميل نحو المخاطرة. كان هناك اتفاق عام على أن يخصص إدارة التمريض يجب أن يكون على مستوى الماجستير، إلا أنّ على جميع الممرضين والممرضات أخذ مساقات للقيادة والإدارة أثناء تقدمهم. الخلاصة: إن تصوّر الذين يتهيئون لدخول المناصب القيادية والذين هم فيها الآن هو يتمحور على تقوية وتمكين مهنة التمريض في سلطنة عُمان. وبالتالي هناك حاجة لمسئولين وقادة تمريض بدرجة عالية من التعليم في إدارة التمريض لتوفير القوة الدفيير والتحفيز المستمر. يحتاج البرنامج الحالي الإدارة التمريض إلى تحديث، وأن يُعطى على مستوى الماجستير للطلاب الذين يدون التخصص في إدارة التمريض.

مفتاح الكلمات: تعليم، تمريض، منظمة، إدارة، عُمان.

ABSTRACT: Objective: To explore the future of nursing administration in preparation for a major review of the current curriculum in the one-year diploma in nursing administration at the Oman Specialized Nursing Institute (OSNI). Methods: A two-part study explored 1) requisite roles, skills and competencies of the nurse administrator, 2) a leadership profile with two convenience samples: heads of nursing and nursing administration students. Each part was analysed separately; the two groups were then compared with the latter revealing similarities and differences. Results: Heads of nursing were more likely to describe roles and be task-oriented, emphasising problem solving, whereas students focused on functions and processes. Both groups wanted nursing to be known for its code of professional conduct, and have an empowered nursing association. Leadership profile comparisons indicated heads of nursing were mature and practical whereas students were idealistic, with risk-taking tendencies. There was overall agreement that preparation for the nursing administration specialty should be at master's level; however, all nurses should undertake a leadership and management course during their progression to senior positions. Conclusion: The vision of those preparing to enter and those already in leadership positions is for empowerment of the nursing profession in Oman. Thus there is a need for highly educated nurse leaders and managers in nursing administration to provide the driving force for change and sustained motivation. The current Nursing Administration Programme (NAP) needs to be upgraded and delivered at the master's level for nurses specialising in nursing administration.

Keywords: Education; Nursing; Organization; Administration; Oman.

Advances in knowledge

- Findings from this study fill a gap in knowledge about expectations of the role and functions of nurse administrators in Oman.
- A new dimension is added to knowledge about appropriate education for nurse administrators to meet the future vision for nursing in

APPLICATION TO PATIENT CARE

- The nurse administrator assures that nurses provide competent, safe, quality care to patients and that nursing standards are upheld.
- Nursing administrators are in a powerful position to advocate for patients, their families and the nurses' well-being within their agencies.

THE AMERICAN ORGANIZATION OF NURSE Executives (AONE) has identified a set of competencies that provide a framework for nurse executives1 and in a joint meeting with the Council on Graduate Education for Administration in Nursing (CGEAN) identified a core curriculum for graduate education in nursing leadership at the post-baccalaureate level. Nursing administration is identified as a nursing role specialty that intersects with leadership and management.2 In Oman, the curriculum for nurse administrators is essentially as it was when it was originally developed in 2003, with leadership and management being an adjunct to administration rather than intersecting with the

There is no literature concerning the expected role and functions of nurse administrators in Oman, yet the nursing education system continues to offer a nursing administration specialty programme. It is timely, therefore, to explore the future of the Nursing Administration Programme (NAP) within the context of 'best fit' and 'best practice' for the Omani situation.

The nurse administrator graduate is expected demonstrate appropriate qualities competencies to manage an increasingly welleducated staff and lead the transformation of the nursing/midwifery professions. The general population is also progressively more educated and they demand quality of health care service provision. Therefore, highly skilled nurse managers and leaders are essential to the advancement of Oman's nurses and nursing administration has shifted to leading and managing a sophisticated nursing profession in a variety of environments from primary health to technologically challenging intensive care in tertiary hospitals.

Currently, the median age of the Oman population is 21.1 years old ³ resulting in relatively young nurses, most under 35 years of age. This creates a bottleneck in career progression. Thus,

ambition for advancement is often the underlying motivator to become a nurse administrator.

Nursing administration students undertake a one-year Diploma in Nursing Administration from the Oman Specialized Nursing Institute (OSNI). To be eligible, they must have graduated with a diploma from a nursing specialist area. Graduates often return to management in tertiary and secondary hospitals or primary health care centres within their initial specialty area. Thus the graduate ends up with three diplomas: a three-year general nursing diploma, a specialist nursing diploma, and a nursing administration diploma.

The OSNI diploma includes courses in nursing administration, applied research and evidence based practice, human resources, ethics, health care finances, and leadership and management. However, objectively measurable competencies for nurse administrator graduates are lacking.

The definition of curriculum ranges from the traditional 'course of study' to a 'focus on multiple interactions with people.'4 Contemporary Omani nursing curricula aim to prepare nurses who are critical thinkers, self-motivated life-long learners, change managers, clinical decision makers, and advocates for health promotion, health education, and safer patient care. Thus the Omani nursing profession consists of increasing numbers of highlyqualified nurses with new health and education professional ideologies and greater sophistication in competency-based, outcome-orientated, evidence -based practice.

Curriculum development in nursing education is an ongoing iterative process that responds to social impetus, including the input of educators and their stakeholders. Against a background of undertaking a revision of the NAP, heads of nursing throughout Oman and nursing administration students were asked to provide opinions about requirements for the education of nurse administrators in the future.5,6

Table 1: Similarities and differences between heads of nursing (HoNs) and Nursing Administration Programme (NAP) students' opinions on the expected broad skills of a nurse administrator

Clear Similarities	Clear Differences	
Change management	HoNs	NAPs
Human relations	Negotiating	
Setting goals and objectives	Monitoring progress	Financial Management *
Motivating staff	Group facilitation	Maintaining organisational
Problem solving	Maintaining workflow	Organisational stability
Decision making		
Mentoring		
Maintaining structure and organizational culture		

*(P = 0.04)

Methods

A quantitative survey design with one 'free expression' question about the nursing profession in the future was selected that included perspectives about roles, skills, managerial competencies of the nurse administrator, and the content of a nurse administration specialty programme. The survey questions were developed from existing nursing administration curricula, as well as literature on nursing administration and management.^{1,2} Respondents were required to select responses and had the opportunity to comment. An adapted version of the competing values management practices survey developed by Quinn was also included.7 Quinn's model⁸ evolved from four traditional but different management domains: the Rational Goal; the Internal Process (models from the early 1900s); the Human Relations; and the Open Systems (models from the 1950–1970s).^{7,8} The relationships between the models, when placed onto a larger framework, form two axes, the y axis ranging from flexibility to control and the x axis ranging from an internal to an external organizational focus. Each of the four models fits into one of four quadrants which demonstrate competing values within an organisational structure [Figure 1]. The tool was piloted with a small group of nurse executives, not participants in the final study.

All heads of nursing (HoNs) attending one of their regular national meetings agreed to take part (N = 45); one survey was returned blank. No demographic data were collected as individuals within the small sample of well-known nurses

may have been identifiable. All students from the NAP present in class on one particular day (total 18) completed the survey (70% of the total class). The Nursing Administration Diploma is the only programme of its kind in Oman and any demographic data would certainly have identified the students. Thus, the total population of HoNs in Oman and all students enrolled in the Nursing Administration Programme were selected. The study was approved by the OSNI Research Committee who gave face validity to the questions and accepted its ethical integrity. Consent was taken as given if the participant returned the completed survey.

Simple descriptive analysis was used to map significant differences. As the responses indicated clear majority views, further analysis was not attempted. The managerial practices survey, was computed according to the instructions given by Quinn as cited in Edwards, Austin and Altpeter.⁷

Participants were asked to rate 36 managerial practice statements on a scale of 1 to 7 (indicating almost never to almost always). The rankings were then transferred to a computational worksheet for self-assessment. The worksheet was divided into 8 leadership roles and instructions were given for the total category score to be marked on the corresponding spokes of the competing values wheel [Figure 1]. Once plotted, the profile diagram demonstrated existing strengths and priorities for further improvement. In this study, a collective profile was plotted which was useful in demonstrating competing roles and values in general.

Table 2: Four theoretical models translated in management practices

Focus	Model	Definition	Roles
Collaboration	Human Relations	Internal Flexibility	Facilitator/Mentor
Competition	Rational Goal	External Control	Producer/Director
Creativity	Open Systems	External Flexibility	Innovator/Broker
Control	Internal Process	Internal Control	Monitor/Coordinator

Comparison of the two independent groups was undertaken using the chi-square test for proportions at a 95% confidence interval (CI) and a null hypothesis that the proportions for each section (role, skills, and competencies) were equal. When comparing two proportions, the chi-square test is equivalent to the z-test.

Results

A total of 60% of HoNs expected a graduate of the nursing administration diploma to be in upper and middle level management compared with 75% of students ($x^2 = 0.3$, P > 0.05). Students were more likely to describe functions than roles such as "the people responsible and accountable for the success and failure of nursing practice who are good futuristic planners." HoNs listed roles such as principal nurse, deputy, regional head, in charge of health centres, heads of local hospitals and senior nurses (if having to act alone). According to the students, middle level managers were expected to show an ability to lead and could be unit heads who take responsibility for a specific unit or department, or for several wards. Both groups described lower management as ward level.

Some NAP students expressed an expectation to take on an executive role as a graduate, whereas HoNs did not expect this (P = 0.001, 95% CI = 3.5–2.8). Three students expected to be responsible for the whole of the nursing services in their organisation. Executive management was defined by the students as a person assigned to look after all health services and health affairs as a director of nursing and midwifery, or to act as a principal nursing officer who reports directly to a hospital director. They were expected to have a long-term vision and to improve nursing services and affairs to gain patient and staff satisfaction.

Table 1 shows the similarities and differences between HoNs and NAPs regarding the expected broad skills of a nurse administrator. It uses a cutoff point (75%) representing a clear majority view for exploring similarities and differences. There was full consensus among the HoNs about the skill of problem solving, and full consensus among NAP students about the skills of change management and motivating staff. The participants were asked what managerial competencies were important to include in a NAP. The only competency on which both groups had full consensus was conflict management.

Competencies highly valued by both groups included communicating effectively, building teams, developing and communicating a vision, living with change, and self-improvement. The NAP students also highly valued analysing core processes, fostering a productive work environment, building and maintaining a power base, negotiating agreements and commitments, and understanding development processes. The HoNs, on the other hand, highly valued developing employees, measuring quality and performance, designing work schedules, and thinking creatively.

Both groups, through free expression, indicated they wanted the nursing profession to become noted for its code of professional conduct in terms of accountability and responsibility. Having an empowered nursing association was also important. However, there were also marked differences with the students urging empowerment, promotional opportunities, and leadership, while the HoNs focused on tasks such as clinical auditing, developing presentation skills, compiling duty rosters, writing good quality proposals and reports, using mistakes as opportunities to improve critical incident handling, and the development of nurses who can impact national health policy/education policy/nursing curricula.

When asked for their recommendations about what to include in a NAP curriculum, the students demonstrated much greater consensus than the

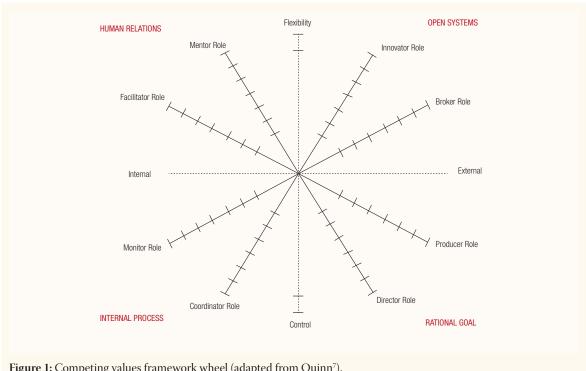


Figure 1: Competing values framework wheel (adapted from Quinn⁷).

HoNs. However, both groups identified that a NAP should include courses in applied ethics, evidence based practice, human resources, applied research, nursing leadership, and management. Health finance was a topic strongly recommended by the NAP students (88.9%) but not supported by the HoNs (< 40%), which is statistically significant (x² = 12.4; P < 0.001). Conversely, the HoNs favoured a course in behavioural sciences whereas the students did not. Both students and HoNs believed that nursing administration should be offered at master's degree level. The HoNs also suggested a focus on nursing management and leadership at the post-basic diploma level.

A managerial practices survey was undertaken with the two groups and the results plotted onto the competing values skills-assessment leadership role profile [Figure 1].7 Each quadrant represents a theoretical model (i.e. upper left = human relations, upper right = open systems, lower right = rational goal and lower left = internal process).8 To translate the four theoretical models into management practices, each quadrant is labelled according to its central focus [Table 2].

A comparison of the collective leadership role profiles of the two groups showed that the students tended toward the coordination role, closely followed by mentoring and monitoring. However, the HoNs tended toward mentoring and directing, which demonstrates clear competing values, although the producer and coordinator roles also ranked high.5,6

Discussion

According to Sullivan and Decker, the role of the nurse administrator is to manage the daily operations of a department within a variety of health care facilities, execute the strategic objectives of the health care agency, establish and implement nursing guidelines based on research evidence, ensure the department(s) are adequately staffed over all shifts, manage the use of resources, and assist the nursing staff in delivering quality patient care.9 Nurse administrator preparation includes evidence-based practice, and management and leadership development, plus organisational theory including strategic planning, quality assurance, health economics, health policy, and management of resources.

The participants viewed nursing administration as mainly the middle or executive level of management. All participants believed that the nurse administrator should have a clear, longterm vision as a nursing leader. The development and articulation of vision for nursing practice

is an important ability required in the nurse administrator.10

Shared opinions about skills included change management, dealing with human relations, setting goals and objectives, motivating staff, problem solving, decision making, mentoring, and maintaining the structural and organisational culture. Differences were negotiating, monitoring progress, group facilitation, maintaining workflow, and maintaining organisation stability. None of these differences were statistically significant.

In exploring the future of the NAP, two content areas were highlighted: financial management (recommended by the students), and behavioural sciences (recommended by the HoNs). Financial management, cost analysis, micro- and macroeconomics are specialty content recommended for nursing administration.10 The student group had undertaken a financial management assignment and so recognised the value of understanding the economic use of resources. The perceived need for behavioural sciences by the HoN group was new. Behavioural science is the study of human behavior as individuals, and in groups, societies and cultures. Experiential learning strategies are very useful for teaching behavioural sciences in nursing and scenarios, case studies, role plays, and problem solving exercises can be utilised.¹¹

The terms 'competencies' and 'skills' are sometimes synonymously although used competency is also used to mean a broad set of skills, such as managing conflict, team building, communication, developing and communicating a vision, living with change, and self-improvement. These were all identified by both groups and are in line with the Joint Position Statement on Nursing Administration Education.10

The addition of a managerial practices survey sought to explore the future of the NAP and curriculum development from a pragmatic as opposed to a theoretical perspective. In identifying ideas about roles and functions, the two groups illuminated the deficits in the current curriculum. A comparison of the profiles demonstrated that the students' profile consisted of the roles and functions of coordination, mentoring and monitoring. However, the HoNs' profile was divided between the roles and functions of mentoring and directing, producing and coordinating. Thus the HoNs had a greater focus on production and direction, which is a more external control authoritarian approach, compared to the students who focused more on the internal control utilising human relationships.

Each of the models in the competitive values framework has a perpetual opposite [Figure 1]. These four opposing models generate a competing values framework appearing to carry a conflicting message. Organisations need to be adaptable and flexible yet also stable and controlled; they need to value human resources at the same time as they value planning and goal setting. The opposites are not mutually exclusive. All values inherent in the framework are important because of the complexities of work which confront people every day. Managers find themselves playing conflicting roles as the day-to-day and minute-by-minute context and environment of their organisation changes. Effective leaders and managers often have to change roles. In Figure 1, the roles of facilitator and mentor fall into the human relations model focusing on collaboration. The roles of innovator and broker fall into the open systems model focusing on creativity. The roles of producer and director fall into the rational goal model with its focus on competition, and the roles of monitor and coordinator fall into the internal process model with its focus on control.

Coordinators, monitors, and mentors focus on matters internal to the organisation that maintain the organisational structure through tasks such as budgeting, planning schedules, utilising systems, and implementing quality control measures and human relations. This requires technical competence, and collecting, using, and disseminating information for the smooth functioning of the organisation and the orderly flow of work, ensuring that the organisation has a competent workforce.8 The student cohort profile suggests they see the need to be flexible while maintaining a level of control; use traits for successful mentorship such as caring and empathy, and be knowledgeable and well prepared.

Directing falls into the dimension of external control focusing on formal structure wherein the manager deals with the interface between the organisation and its external environment.8 Producing falls into the control sector, suggesting that when linked with directing, the HoNs function more as authorities than mentors. When balanced, however, mentoring and directing skills are as essential for the nurse manager as producing.

A high centralisation of authority was found in ethnographic data analysed by Abdulla and Al-Hamoud, who argued that a paradox exists in Arabian Gulf cultures where dual sets of values exist as leaders and managers move from transactional to transformative leadership at the same time as they strive for change and stability.12 The practicality of the HoNs compared with the idealism of the students is shown when exploring the future of the nursing profession. The students show idealistic dynamism and risk taking when they advocate empowerment, promotional opportunities, and leadership. Idealism defined as pursuing noble principles, purposes, or goals is not unusual among students and new graduates as they are urged to pursue higher goals and improve practice. The "honeymoon" phase after graduation, when everything is new is often followed by "culture shock" as the daily demands of nursing, devoid of the past classroom peer support, replaces idealism with realism and motivation with cynicism.13

This study is limited by its specific focus on the only NAP existing in Oman. However, separate analysis of the HoNs and NAP students, followed by comparison of both groups, have strengthened the understanding of the education of nurses entering a managerial role in Oman and have informed curriculum development for the existing NAP.

Conclusion

Responsibility for financial management stood out as a major difference between the two groups. The HoNs illustrated that they do not have any responsibility for financial matters. For the students, the topic represented a vision for the future where nurse administrators can take an active role in the management of financial resources as nurses comprise the bulk of the health care workforce. Internationally, nursing administration is perceived as an advanced nursing specialty; an Omani master's degree in nursing administration would prepare nurse administrators to take their rightful place in top administration with responsibility and accountability for financial and local health economies.

The main purpose of this study was to gain information for the curriculum review of the only nursing administration diploma programme in Oman. There was consensus that nursing administration should be offered at master's level, which fits with the current international discussions. However, it was also strongly recommended by HoNs that all nurses should undertake a course in leadership and management as part of progression to senior positions, even if not going into administration. The question therefore arises whether the time has come to emphasise the development of nursing leaders and managers in all nursing specialties, and move nursing administration to the master's level. Omani nurses are facing the paradox where dual sets of values are working in parallel as the transition from the days of autocratic paternalism are transforming into the future of nursing democracy. Well-educated nurse administrators will lead the way.

This study leads to three main recommendations. First, a new nursing administration curriculum should promote a paradigm shift from transactional to transformative leadership. Second, nursing education must meet the needs of the future generation of nursing leaders and managers. The components of leadership and management should be core courses in all post-basic specialty Omani nursing programmes. Third, nursing administrators should have master's level education. This will offer greater opportunities for a career pathway in nursing administration and create competitiveness in job opportunities within the Omani health care system—as currently executive positions are awarded to graduates from other health care or administrative professions.

CONFLICT OF INTEREST

The author declared no conflict of interest.

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