

Nurse Managers' Actions (NMAs) Scale to Promote Nurses' Autonomy: Testing a New Research Instrument

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Abstract

This study sought at testing a newly developed instrument that measures nurse managers' actions (NMAs) conducive to Jordanian nurses' autonomy. NMAs scale was tested using a convenience sample of two hundred and fifty registered nurses (RNs) who were working in a large teaching hospital in Jordan. The highest reported Cronbach's alpha of actions promoted nurses' autonomy was related to supporting nurses' autonomous decision-making, while the lowest was related to delegating to nurses 24-hours responsibility about their units decisions. The highest reported mean of actions promoted nurses' autonomy was related to encouraging nurses to communicate openly with all members of healthcare team, while the lowest was related to involving nurses in planning the capital expenditures.

Conclusion: *The NMAs scale is reliable and applicable to Jordanian nurses. The NMAs has the potential to be used in Evidence-based Management (EBM),*

Keywords: actions, autonomy, Jordan, nurse, nurse manager scale.

Introduction

Nursing administration is rapidly expanding and becoming more complex. Nurse Managers' (NMs) roles and functions are continuously changing because of today's turbulent healthcare environment. Such changing system requires more managerial and leadership skills and imposes more demand on NMs to promote nurses' autonomy (Keenan 1999, Abdullah & Shaw 2007, Britnell 2007); autonomy will contribute positively to patients' outcomes as well as nurses and organizational outcomes.

NMs have the first line positions and in turn may have the firsthand on some nursing-related issues. Thus, they are in the best position to influence nurses' autonomy. As they spend the majority of their work time among nurses, NMs should promote sufficient time and efforts to enhance staff's autonomy and identify specific means of assessing what promote nurses' autonomy.

Such means may include, but are not limited to, meeting staff's professional needs. These needs have been identified as being of importance to staff's autonomy, satisfaction and retention (Krairiksh & Anthony 2001, Cowin 2002, Kramer & Schmalenberg 2003, Loo & Thrope 2004, Anthony et al. 2005, Currie et al. 2005).

Purpose and significance

Autonomy and visible profession are major milestones for powerful and sound nursing practice (Exworthy et al. 2003, Kramer & Schmalenberg 2003). Unless nurses perceive that they practice in an autonomous work environment, they will not be able to act professionally. Autonomy contributes to visible nursing practice (Kramer & Schmalenberg 2003, Traynor et al. 2010). There are limited studies exploring nurses' autonomy (Ballou 1998, Keenan 1999, Wade 1999). Although few studies focused on the roles of NMs, some studies reported that NMs have vital roles in influencing nurses' autonomy (Maryyan 2002 & 2004), facilitating patient care, and ensuring the quality of work environments (Kerfoot 2001, Kramer & Schmalenberg 2004). Because of the lack of instruments that measure the roles of NMs in promoting nurses' autonomy, the purpose of this paper was to test the newly developed scale in Jordan. In the original stages of developing the scale (Mrayyan, 2002), revisions of Stahl et al. (1983) and Weaver et al.'s scale (1991) were necessary to complete the first version of the NMAs scale.

Literature review

Autonomy is an important element of professional identity and a source of power in clinical practice (Ballou 1998, Wade 1999, Nietzsche & Backes 2000, Krairiksh & Anthony 2001, Wade 2004, Abdullah & Shaw 2007, Britnell 2007, Mighten 2007, Turner et al. 2007, Varjus et al. 2011). Nurses' autonomy is one of the major responsibilities of NMs (Sabiston & Laschinger 1995, Mrayyan 2004). Thus, NMs should have positive attitudes toward their nurses and they should have managerial and leadership skills to allow promote and maintain their nurses' autonomy (Kramer & Schmalenberg 2003). Autonomy is the freedom to make independent decisions on behalf of patients but in their interests (Britnell 2007). In clinical settings, autonomy means acting independently without being restricted by bureaucratic rules of hospitals and receiving orders or permission from others (Kramer & Schmalenberg 2004, Papathanassoglou et al. 2005).

When they perceive themselves to be knowledgeable, autonomous nurses often perceive their NMs to be supportive. Knowledge is a characteristic of autonomous nurses, influencing their perceptions about various issues related to work environments including managers and co-workers (Keenan 1999, Kramer & Schmalenberg 2004, Mrayyan 2004). It is necessary that NMs maintain effective communication on all administrative levels, in addition to creating work environments which facilitate self-empowerment of individuals and provide conditions conducive of autonomous practice (Kramer & Schmalenberg 2004) and to provide conditions that promote autonomous practice (Sabiston & Laschinger 1995). Autonomy has been viewed as a multidimensional construct. It consists of a wide array of behaviors (Papathanassoglou et al. 2005). These researchers reported that autonomy is an essential antecedent of empowerment and professionalism. Furthermore, this concept influences nurses' job satisfaction and retention, job performance, quality of nursing care, and patients' satisfaction (Papathanassoglou et al. 2005, Abdullah & Shaw 2007, Britnell 2007). Autonomy is also influenced by nurses' personal characteristics such as age and education, as well as organizational characteristics such as organizational structures and decision making styles (Mrayyan 2004, Abdullah & Shaw 2007).

Autonomy is an important indicator of supportive work environments and positive patients and organizational outcomes (Abdullah & Shaw 2007, Britnell 2007). Nurses' autonomy reduces nurses' turnover therefore, autonomous nurses are expected to have high career commitment as a result of high job satisfaction and job performance (Kramer & Schmalenberg 2004, Papathanassoglou et al. 2005, Abdullah & Shaw 2007, Britnell 2007, Mrayyan & Al-Faouri 2008). Nurses' autonomy is related to the quality and continuity of care; autonomous nurses are expected to have high job performance and career commitment (Anthony et al. 2005, Currie et al. 2005, Abdullah & Shaw 2007, Britnell 2007, Mighten 2007, Turner et al. 2007, Mrayyan & Al-Faouri 2008). Nurses' autonomy has been found to correlate with reduced turnover and more favorable patient outcomes. Therefore, autonomous nurses are expected to possess higher career commitment, as a result of higher job satisfaction and job performance, in addition to higher quality of patient care (Finn 2001, Kramer & Schmalenberg 2004, Wade 2004, Papathanassoglou et al. 2005, Abdullah & Shaw 2007, Britnell 2007). Previous studies have demonstrated that autonomous nurses influence patient's satisfaction.

Autonomous nurses generally communicate effectively with patients, families, and healthcare teams. Moreover, these nurses provide continuous, accurate and efficient patient care. On the other hand, nurses with low autonomy and low social integration have reported low job satisfaction and work motivation, poor commitment to the organization and less intention to stay in the job (McCloskey 1990). Autonomy in the work field, however, will not occur spontaneously. *NMs* have important roles in promoting nurses' autonomy (Fabre 2002, Lin et al. 2005, Lin et al. 2007). For autonomous practice to flourish, it is necessary that supportive work environments with flexible policies are provided (Currie et al. 2005). Policies formulated by autonomous nurses are more accurate, and will result in cost-effective patient care (Currie et al. 2005, Abdullah & Shaw 2007, Britnell 2007).

NMs should have certain skills and competencies to be able to promote nurses' autonomy (Jenkins 2001, Waldroop & Bulter 2001, Lin et al. 2005, Lin et al. 2007). Stahl et al.'s (1983) scale was used in Weaver et al.'s (1991) study to measure NMs' skills. The researchers investigated first-line managers and reported the **following required skills**: encourages nurses to decide on patient care-related issues, gives direct and continuous feedback, encourages nurses to solve problems and decide upon their units' operation, encourages 24-hour responsibility and accountability, encourages nurses to determine their own educational plans and participate in research projects, encourages leadership among nurses, communicates with all members of the healthcare team, patients and families, solves conflict when presented, establishes standards of care, defines plans that help in achieving organizational goals, establishes long term goals, communicates organizational policies and procedure, participates in budget planning, schedules daily activities of the unit, maintains on-going performance records, assists in patient treatment on daily basis, and participates in professional organizations. In addition to the skills mentioned above, certain competencies have been identified to contribute to NMs' knowledge, including: effective communication, decision-making, problem-solving, counseling strategies, and effective staffing (Lin et al. 2005, Lin et al. 2007).

It is imperative that NMs possess a multidimensional view of autonomy, in addition to applying the skills and competencies which promote and nurture nurses' autonomy. There is a positive evidence in the relevant literature regarding the supportive roles of NMs, including: advocating for nurses, providing supportive organizational climates, communicating effectively, creating autonomous practice environments, providing flexible scheduling and adequate staffing, and maintaining continuing education (Mrayyan 2004, Anthony et al. 2005, Abdullah & Shaw, 2007).

Methods

Instrument

NMAs scale was developed based on Stahl et al. (1983) and Weaver et al.'s (1991) studies (Mrayyan, 2002). Conceptually, NMAs are actions that NMs can use to promote their staff's autonomy. Operationally, NMAs conducive for nurses' autonomy are: delegate to nurses 24-hour responsibility about their unit decisions; help nurses to develop to meet their own learning needs; encourage nurses to participate in research projects and to use research; support nurses to resolve conflicts with physicians, patients and colleagues; encourage nurses to communicate openly with all members of the healthcare team; consult nurses while establishing standards of care; encourage leadership among nurses; stimulate nurses' intellectual discussions about work; support staff nurses' autonomous decision-making; encourage staff nurses to self-schedule; and involve staff nurses in planning the capital expenditures. The range for the 11 items of the scale is: 1= does not know; 2= seldom; 3= sometimes; 4= usually; 5= always. A demographic form was developed to measure sample's characteristics of: gender, marital status, shift worked, time commitment for work, level of education, age, years of experience in nursing, years of experience in hospital settings, average daily census, type of units/ wards, ward/ unit's organizational structure, model of nursing care, and decision making style in ward/ unit.

Ethical consideration

The Hashemite university, research ethical committee and the ethical committee of the teaching hospital approved this study, individuals were informed that their answers would be treated anonymously and confidentiality. Also permission to use the NMAs scale was obtained from the author.

Sample, setting, and data collection

Using a convenience sampling technique, the NMAs scale was administered to 420 nurses who were working in a teaching hospital in Jordan.

Two hundred and fifty questionnaires were obtained; the response rate was 60%. "Working at hospital settings for at least one year" was the only sampling criterion. Practical nurses were excluded from the current study. Consents for data collection were obtained from hospital's administrators and nurses. All nurses were sent letters to invite them to participate in the study. The letters included a brief description of the purpose of the study and the demographic form. All returned questionnaires were handled by the researchers only. Participation was voluntary and nurses were told that they could withdraw from the study at any time. The anonymity of participants and confidentiality of their responses were assured in the invitation letters. To assure the confidentiality, the overall results were shared with hospitals' administrators.

Results

Male nurses were more represented than female nurses (54.6% vs 45.4%). The majority of nurses were single (58.3%) with an average age of 29.5 years, worked the rotating shift (48.8%) on full time basis (86.3%). The baccalaureate degree was the highest degree (36.6%). Table (1) illustrates various demographic variables for the sample.

Table 1. Sample's Demographics (N=250)

Variables	*N (%)
Gender	
Male	136 (54.6)
Female	113 (45.4)
Marital status	
Single	144 (58.3)
Married	100 (40.5)
Separated/ Divorced	3 (1.2)
Shift worked	
Day (12 Hours)	24 (9.6)
Evening (12 Hours)	12 (4.8)
Day (8 Hours)	64 (25.7)
Evening (8 Hours)	15 (6.0)
Night (8 Hours)	12 (4.8)
Rotating (A, B, C)	122 (49.0)
Commitment to work	
Full-time worker	215 (86.3)
Part-time worker	34 (13.7)
Level of education	
Associate	21 (8.4)
Diploma	56 (23.6)
Baccalaureate	159 (63.6)
Master	8 (3.2)
Doctorate	3 (1.2)
Age	
Less than 25 years	93 (37.3)
25-34 years	123 (49.4)
35-44 years	28 (11.2)
45 years and more	5 (2.0)
Years of experience as a nurse	
Less than one year	29 (11.7)
1-2 years	66 (26.6)
3-4 years	46 (18.5)
5-9 years	65 (26.2)
10 years or more	42 (16.9)
Years of experience in current setting	
Less than one year	34 (13.7)
1-2 years	79 (31.7)
3-4 years	57 (22.9)
5-9 years	45 (18.1)
10 years or more	34 (13.7)

Continue Table 1

Unit/ward's daily census	
1-5 patients	52 (21.0)
6-10 patients	50 (20.2)
11-15 patients	42 (16.9)
16-20 patients	43 (17.3)
21 and more patients	60 (24.6)
Unit/ward's organizational structure	
Vertical	85 (34.0)
Horizontal	98 (39.2)
Matrix	37 (14.8)
Unclear structure	30 (12.0)
Model of nursing care provision	
Primary	69 (27.6)
Team	101 (40.4)
Functional	67 (26.8)
Unclear model	13 (5.2)
Unit/ward's decision making style	
Authoritative-unilateral	62 (24.8)
Participating-bilateral	74 (29.6)
Mixed	91 (36.4)
Unclear style	23 (9.2)

* Some totals don't equal to 250 because of missing data

The results provided evidence that the 11-item NMAs scale has acceptable psychometric properties (Table 2). The item-total correlation of the 11 items ranged from .41 to .86, which is quite similar to the parameters of the original scale (ranged from .48-.86) (Table 3). In the current sample, the highest correlation was for "support nurses' autonomous decision-making" (R=.86). The lowest correlation was for "delegate to nurses 24-hours responsibility about their units decisions" (R=.41). The overall reliability of the NMAs scale was demonstrated by using the Cronbach's alpha (.94).

An average score for NMAs scale was calculated by adding the items and dividing the total by 11. The overall mean of NMAs for the whole sample was 3.02, indicating that nurses felt that their managers "sometimes" do some managerial actions to encourage nurses' autonomy. The highest reported mean of actions that promoted nurses' autonomy was related to encouraging nurses to communicate openly with all healthcare members (\bar{X} =3.82), while the lowest was for involving nurses in planning the capital expenditures (\bar{X} =2.14).

Table 2. Nurse managers' actions promoted Jordanian nurses' autonomy (N= 250)

Nurse managers' actions	\bar{X}	S.D.	*R
Encourage nurses to communicate openly with all members of the healthcare team	3.82	1.28	.75
Support nurses to resolve conflicts with physicians, patients, and colleagues	3.42	1.35	.79
Encourage leadership among nurses	3.35	1.41	.85
Support nurses' autonomous decision-making	3.28	1.45	.86
Consult nurses while establishing standards of care	3.16	1.38	.81
Allow nurses to self-schedule	3.04	1.51	.46
Stimulate nurses' intellectual discussions about work	2.90	1.45	.85
Delegate to nurses 24-hours responsibility about their units decisions	2.90	1.43	.41
Help nurses to develop plans to meet their educational needs	2.86	1.30	.73
Encourage nurses to participate in research projects and use research	2.44	1.44	.45
Involve nurses in planning the capital expenditures	2.14	1.24	.61
Overall Mean	3.02	1.38	

* R means "corrected item-total correlation"

Table 3. Original parameters of NMAs scale (N=317)

Nurse managers' actions	\bar{X}	S.D.	*R
Encourages nurses to communicate openly with all members of the healthcare team	3.79	1.30	.77
Supports nurses to resolve conflicts with physicians, patients, and colleagues	3.43	1.37	.82
Encourages leadership among nurses	3.32	1.45	.86
Supports staff nurses' autonomous decision-making	3.27	1.47	.86
Consults nurses while establishing standards of care	3.19	1.40	.83
Allows staff nurses to self-schedule	2.95	1.52	.48
Delegates to nurses 24-hours responsibility about their units decisions	2.95	1.46	.48
Helps nurses to develop plans to meet their educational needs	2.91	1.38	.76
Stimulates nurses' intellectual discussions about work	2.90	1.48	.85
Encourages nurses to participate in research projects and use research	2.54	1.50	.73
Involves staff nurses in planning the capital expenditure	2.13	1.26	.58
Overall Mean	3.03	1.11	

* R means "corrected item-total correlation"

Discussion

There are increasing calls for actions and decisions in healthcare to be taken on the basis of robust evidence. The results of this study are scientific evidence which can be used in Evidence-based Management (EBM): an emerging movement to utilize the best evidence in management decision-making (Learmonth & Harding 2006, Rousseau 2006a). EBM requires managerial decisions and organizational practices informed by the best available scientific evidence (Learmonth & Harding 2006, Rousseau 2006a).

There was not any available scale to measure NMAs conducive to nurses' autonomy. The NMAs scale seems to be applicable to the Jordanian nurses. The overall Cronbach's alpha of the NMAs scale was .94 which supported the initial reliability of the scale. As the item-total correlation of the 11 items ranged from .41 to .86, the presence of a Cronbach's alpha of .41 may be viewed as an undermining indicator of internal consistency. The current researchers were aware that items that had a low item-total correlation should be dropped from the scale (Polit, Beck, & Hungler, 2001). However, because of the limited number of the generated items, positive versus negative correlation was used to decide on the internal consistency of the scale (Mrayyan 2002, 2004). Another explanation of why some low alphas were yielded is that some categories may be resulted in excluding some of the respondents, depending on the respondent's characteristics. In determine reliability of the current instrument, only the "internal consistency" was tested only for the current scale, thus pretest-posttest is recommended to test the "stability" of the test. However, yielding almost the same results may indicate a sense of scale's stability. Although the psychometric properties of the NMAs scale are initially acceptable, a factor analysis is recommended with a larger number of items and a larger sample (May & Limandri 2004).

Nurses felt that their managers "sometimes" do some managerial actions to encourage nurses' autonomy, thus NMs should "always" initiate such actions. The lowest correlation was for "delegate to nurses 24-hours responsibility about their units decisions". This could be explained that some departments do not have "the 24-hour delegation" such as the Operating Room, Emergency Room, and Recovery Room. As it was the highest reported mean, NMs should maintain and increase nurses' open communication with all members of healthcare team (Lin et al. 2005, Lin et al. 2007). As the lowest reported mean, participative decision-making in involving nurses in planning the capital expenditures will enhance their autonomy (Weaver 2001, Abdullah & Shaw 2007, Turner et al. 2007). However, it is important to mention that the low reported alphas and means need further investigation; these could be related to the nature of work environments rather than the presence of a shortcoming in the scale.

Regardless to issues related to the current scale, there is a potential to use the scale for informing and improving practice. The current researchers recommend that the NMAs scale is to be used as a part of the interview process when hiring new NMs.

Summary and conclusions

This scale has a promising potential to be used in Evidence-based Management (EBM). NMs should initiate managerial actions that can promote nurses' autonomy; this concept has positive outcomes for patients, nurses, and organizations. The NMAs scale provides a mean for evaluating NMAs that promote nurses' autonomy in Jordan. It is recommended to use the scale with a larger sample size and multiple settings. It is also recommended that the number of items on the scale be increased, considering that this generally results in increased reliability.

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