

Development of an Assessment Tool in Measuring Competencies of Head Nurses

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Abstract—Competencies have been considered as the single biggest contributor to the difference between effective and ineffective managers. Competencies assessment is critical for head nurses who must move between and among health care settings. Competency assessment is an ongoing process of initial development, maintenance of knowledge and skills, educational consultation, remediation, and redevelopment.

The aim of this study was focused on the validity and the reliability of the assessment tool in measuring competencies for head nurses. This study developed an assessment tool in measuring competencies of the head nurses from the competencies published by AONE, 2005. Content validity was done by the expert review. The respondents were 100 head nurses in the hospitals in Pampanga, the Philippines. The reliability test was done by Cronbach alpha test.

From the initial assessment tool which had 91 items, it became 74 items after the expert review and the reliability test. The computed Cronbach's alpha for the 74-item Scale for Head Nurses' Competencies was 0.988, indicating very

high internal consistency. So the instrument is reliable for measuring the competencies of head nurses.

This study concluded that the assessment tool in measuring competencies of the head nurses had demonstrated evidence of internal consistency reliability and content validity. It provided an objective tool for assessing the head nurses competencies in the various areas in the hospitals.

Keywords- Competencies; Head Nurses; Assessment Tool

1. INTRODUCTION

The health care delivery system is a complex environment that requires fundamental and system change to produce high quality outcomes and satisfying work environment. Head nurses live with this complexity as a daily experience while working on the front line to make sure patient care is safely delivered through high quality practice [6]. In the hospital setting, the head nurse is the vital link between executive management and the nursing staff members, who provide direct patient care. The

ability to effectively and efficiently develop competent head nurses is a major challenge in today's health care environment. Competencies have been considered as the single biggest contributor to the difference between effective and ineffective managers. Research has shown that competencies, defined as cluster of skills, behavioral attributes, and personal attitudes make a greater contribution to the effectiveness of managers than either formal qualifications or number of years of experience.

The World Health Organization (WHO) Global Advisory Group in 2000 emphasized that it is imperatively important to ensure nurses' competence levels. The American Joint Commission on Accreditation of Healthcare Organization (AJCAHO) has proclaimed that in order to provide quality patient care, those who deliver patient care services must be competent to do so. AJCAHO standards also require that leaders should ensure that the competence of staff members is continually assessed, maintained, demonstrated, and improved [4].

All managers, irrespective of where or what they manage, need to develop several competencies that will enable them to effectively perform the four generic functions of planning, organizing, leading and controlling [7]. According to Donaher (2007), 63% of nurse managers do not possess a graduate degree, which is the minimum preparation recommended by the joint research of the American

Association of Colleges of Nursing and the American Organization of Nurse Executive (AONE) [2].

Base on the preliminary survey conducted by the researcher in four hospitals, in Angeles City, there are two hospitals that have periodic assessment for their nurses. That assessment is for all staff nurses, but there is no specific assessment for the nurse managers. The other two hospitals have periodic assessment specific for the head nurses, but that is for the performance instead of competency.

Competencies assessment is critical for head nurses who must move between and among health care settings. Competency assessment is an ongoing process of initial development, maintenance of knowledge and skills, educational consultation, remediation, and redevelopment. Competency assessment and staff development are increasingly viewed as a central strategy for improving the effectiveness of those who provide care [5]. Hospitals are required to assess, maintain, demonstrate, track, and improve the competence of the head nurse.

Several studies have profiled the head nurse, but have focused on the characteristics and responsibilities of these individuals. This study delineated and identified specific competencies that are considered important for hospital-based head nurse manager effectiveness. Based on AONE, Nurse Managers must be competent in

communication and relationship building, knowledge of the healthcare environment, leadership, professionalism, and business skills. This study gives evidence on the validity and reliability of an assessment tool in measuring competency for head nurse in establishing the head nurses' competencies.

II. METHOD

This development of an assessment tool in measuring competency for head nurses used a non-experimental descriptive design. The study consisted of two phase: (1) preliminary phase including two steps, and (2) gathering data or research phase including three steps. The data gathering used the competencies self-assessment tool for head nurses.

The subjects of this study were one hundred (100) head nurses in all departments in hospitals. Samples of this study used purposive sampling method or judgmental sampling using following criteria: 1) the head nurse must be a regular employee; 2) he/she must have been working for at least one year. These methods used the researcher's knowledge about the population and decided purposely to select subjects who were judged to be typical of the population or particularly knowledgeable about the issues under study [8].

There were two parts in the study: the preliminary phase and the data gathering or research phase.

This research utilized the Nurse Executive Competencies Assessment Tool developed by the American Organization of Nurse Executives (AONE). The researcher selected some items which are appropriate in relation with the head nurses' job description in the hospital setting. This assessment tool measures the five main competencies of nurse managers. Each competency has its parts with several items.

The first competency is Communication and Relationship Building. This competency has 25 items separated in 7 parts. The second competency is Knowledge of Health Care Environment. The whole items in this competency are 21 items separated in 9 parts. The third competency is Leadership. It has 13 items separated in 3 parts. The fourth competency is Professionalism. There are 14 items included in this competency. Those items are separated in 4 parts. The last competency is Business Skill. This competency has 15 items separated in 3 parts. All in all, this assessment tool has 88 items. Statistical analysis was carried out using SPSS version 15. Internal consistency was assessed by utilizing Cronbach's alpha.

III. RESULT

Existing Tools be Evaluated based from AONE

The researcher went to four hospitals, and requested a copy of assessment tool that they have. Hospital 1 has a specific evaluation tool for the head nurses. Hospital 2 has a tool for periodically evaluating its nurses, but it does not have a specific tool for evaluate the head nurses. Hospital 3 has an evaluation tool that specific for it head nurses. Hospital 4 does not have specific evaluation tool for it head nurses, but it has an evaluation tool applicable for all its nurses.

All the evaluation tools that the four hospitals have are for the evaluation the performance of the nurses. In other word, it does not focus on the competencies. Kak Neeraj said that performance and competencies are different [3].

However the researcher did matching the items in each hospital's evaluation tool with the list of competencies published by AONE. The following table showed the exist evaluation tools of those four hospitals compare to the list of competencies published by AONE.

All hospitals do not evaluate the business skill in their evaluation. Hospital 1 almost has all items in AONE main competencies. But there are some items do not evaluated by hospital 1. There are the delivery care method, change management and evidence-based practice. Hospital 2 has items match

with three items in the communication and relationship building, items match with three items in the competency number two knowledge of healthcare environment, items match with one item in the leadership competencies, and items match with two items in the professionalism competency.

In the performance evaluation tools had by the hospitals, none of those tools evaluate about diversity. This item is considered important by AONE under the competency of communication and relationship building. In related to the global changes, diversity becomes important to be mastered by the head nurses.

Item which talk about delivery model, healthcare economics, healthcare policy, governance, evidence-based practice, and risk management are considered important by AONE under the competency of knowledge of healthcare environment. But none of those items emerge in the performance evaluation tools of the four hospitals.

Change management also not to be evaluated by the four hospital in their performance evaluation tool. This mastering in change management is considered important by AONE under the competency of leadership. Today's ever changing healthcare environment, nurses, especially administrators and managers, require leadership skills that provide direction for a new generation of nurses. Change management also included in Mahoney study in its part of leadership.

Under the competency of professionalism, there are items about evidence-based clinical and management practice and advocacy is considered by AONE. But none of those hospitals have that particular item evaluated in their performance evaluation tool. Specific indicator for professionalism is important to know who is the professional nurse. Lastly, the competency of business skills is not being evaluated by all hospitals in their performance evaluation tool. Head nurses have to have business skill competency according to AONE.

Assessment Tool In Measuring The Competence of Head Nurses Be Designed

The competency assessment tool was designed by items. The items were derived from the AONE's competency list. Each item was have its score 1 to 5, which is one reflected as novice, two as advanced beginner, three as competent, four as proficient, and five as expert.

The first draft of this tool was submitted to two the experts for comments and suggestions. After the expert review, there were three items numbers thirty two, thirty three and seventy three considered as unclear, so those items were deleted from the tool. From 91 items that the toll had before, finally it has 88 items.

The first competency is Communication and Relationship Building. There are 7 parts under this competency. These are Effective communication (1

item), relationship management (5 items), influencing behavior (3 items), diversity (3 items), shared decision making (3 items), medical staff relationship (6 items), and academic relationship (3 items). Change happened in the sequence of these parts after the expert reviews, but the number of items under each part is stable.

The second competency is the knowledge of the health environment. This competency is important with regard to the legality, insurance, etc. under this competency, originally there are 23 items. Two of those items are considered not clear according to the experts' review, so there are now 21 items left.

The 22 items are spread into eight parts in this competency. There are clinical practice knowledge (4 items), delivery model (2 items), health care economics (1 item), health care policy (1 item), governance (2 items), evidence-based practice (3 items), patient safety (5 items), quality improvement (1 item), and risk management (2 items).

The third competency is leadership. In this main competency there are 13 items. All of these items are considered relevant by the expert review.

The 13 items are spread into three parts. These are foundational thinking skills (3 items), personal journey discipline (5 items), and change management (5 items).

The forth competency is professionalism. Four parts under this competency are: Personal and

Professional Accountability (6 items), Ethics (3 items), Evidence-Based Clinical and Management Practice (2 items), and Advocacy (4 items). There were 15 items originally. After the expert review, one item was deleted because it was considered as not clear. The item was "Role model, the perspective that patient care is the core of the organizations' work". So there are now 14 items left.

The last competency is Business Skills. There are three parts under this competency. The parts are Financial Management (1 item), Human Resource Management (8 items), and Information Management and Technology (6 items). All in all, there are 15 items under the business skills competency. This competency is the competency that should be had by the head nurses in relation to the global world.

Assessment Tool Be Tested As To Its Validity and Reliability

Content Validity

Measuring content validity of instrument is important. This type of validity can help to ensure construct validity and give confidence to the reader and researchers about the instrument. Content validity refers to the degree that the instrument covers the content that it is supposed to be measured.

Researcher asked the expert to check the relevance of each item in the instruments. The experts who were able to review the particular instruments are the nurse executives (N VII) in the Philippine General Hospital. Both experts agreed that this instrument is more or less already relevant to the Philippine setting. There were three items considered irrelevant because those items were not clear enough. The two items were item no 32 and 33 both items lie under the competency 2: knowledge of the healthcare environment, in delivery models part. The other one item was item no 73 this item was under the advocacy part in the competency 4: professionalism.

Minimum additional and/or change words were added in some items in the instrument to make the instrument more understandable. The sequence in the first part competency which is communication and relationship building, are needed to be re arranged to make it more systematic.

Reliability of the Instrument

Reliability of the instrument is the degree of the consistency or dependability with which an instrument measures attribute it is designed to measure. Reliability testing can be done by one time or two times administration. Cronbach's alpha is the most common form of internal consistency reliability coefficient. Alpha equals zero when the true score is not measured at all and there is only an error component. Alpha equals 1.0 when all items

measure only the true score and there is no error component.

In this research, the reliability of the instrument was tested using the cronbach's alpha technique. Cronbach's alpha can be interpreted as the percent of variance the observed scale would explain in the hypothetical true scale composed of all possible items in the universe. Alternatively, it can be interpreted as the correlation of the observed scale with all possible other scales measuring the same thing and using the same number of items. There were three items deleted after the contents validity testing. The instrument now has 88 valid items.

The computed Cronbach's alpha for the 88-item Scale for Head Nurses' Competencies was 0.989, indicating very high internal consistency. This means there is a very high degree of association between the items in the scale.

The corrected item-total correlations showed that all items had positive correlations with the total scores, the lowest of which was 0.520, which implies that all the items in the scale are good indicators of the competencies of head nurses. However, only 75 items meet the minimal correlation of 0.70 which is necessary to claim the instrument and its subscale scores are internally consistent.

Furthermore, individual analysis of Cronbach's alpha if item deleted showed that the alpha coefficient remained the same if any item is

deleted, which implies that an item may be deleted without affecting the overall reliability of the scale.

The table 4 is the final assessment tool for measuring the head nurses' competencies. This tool has five main competencies, which are communication and relationship building, knowledge of healthcare environment, leadership, professionalism, and business skills. Each competency has its own items. The communication and relationship building competency has 23 items. The knowledge of healthcare environment has 14 items. The leadership competency has 12 items. The professionalism competency has 13 items. The business skills competency has 12 items. Each item has scoring from 1 to 5, which is "1" refers to novice and "5" refers to expert.

This tool may be used in the same time with the regular schedule of staff evaluation in each hospital. But it is depend on the hospital situation and policy. Each head nurse is asked to rate them self as novice to expert on those items written in the tools. The final average score will be the description of their competency as a head nurse.

Conclusions

The instrument for measuring of competencies for head nurse was shown to be valid and reliable tool for assessing competencies for head nurses. The reseacher suggested that the instrument may be utilized by the chief nurses to do evaluation to the head nurses. And the evaluation of the head nurses'

competencies may be done together with the performance appraisal in the same time.

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Appendix:
Reliability Analysis for the 75-Item Scale for Head Nurses' Competencies

Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Manage conflict	.652	.988
2. Build trusting, collaborative relationships with: Peers, Superiors, Other disciplines and ancillary service, Physicians	.714	.988
4. Follow through on promises and concerns	.722	.988
5. Care about people as individuals and demonstrate empathy and concern, while insuring organizational goals and objective are met	.743	.988
6. Accomplish objectives through persuasion, celebrate successes and accomplishment.	.784	.988
7. Assert views in non-threatening, non-judgmental ways	.760	.988
8. Create and communicate a shared vision	.738	.988
9. Reward appropriate behaviors and confront and manage inappropriate behaviors.	.717	.988
10. Develop, communicate and monitor behavior expectations.	.777	.988
11. Create an environment which recognizes and values differences in staff, physicians, patients.	.753	.988
12. Define diversity in terms of gender, race, religion, ethnic, sexual orientation, age, etc.	.722	.988
13. Confront in appropriate behaviors and attitude towards diverse groups develop process to incorporate cultural beliefs into care.	.652	.988
14. Engage staff and others in decision-making.	.752	.988
15. Promote decisions that are patient-centered	.755	.988
16. Provide an environment conducive to opinion sharing.	.726	.988
17. Build credibility with physicians as a champion for patient care, quality and nursing professionalism.	.721	.988
18. Confront and address in appropriate behavior towards patients and staff.	.724	.988
19. Collaborate with medical staff leaders in determining needed patient care services.	.742	.988
20. Collaborate with physicians to develop patient care equipment and facility needs	.655	.988
22. Facilitate disputes involving physician and nurses or other disciplines.	.723	.988
23. Identify educational needs of existing and potential nursing staff.	.734	.988
24. Collaborate with nursing programs to provide required resources and as a preceptor for the students.	.744	.988
25. Collaborate with nursing faculty in nursing research and incorporate research into practice.	.664	.988
26. Maintain knowledge of current nursing practice and the roles and functions of patient care team members.	.661	.988
27. Articulate patient care standards/practice	.692	.988
28. Understand, articulate, and ensure compliance with the Philippine Nursing Act, Philippine Regulation, and Policies of the Organization.	.770	.988
29. Role model lifelong learning, including clinical subjects, such as disease processes, pharmaceuticals, and clinical technology.	.709	.988
30. Maintain current knowledge of patient care delivery systems and innovations.	.763	.988
31. Articulate various delivery systems and patient care models and the advantages/disadvantages of each.	.734	.988
33. Articulate the country laws and regulations which affect the provision of patient care. I.e., malpractice/negligence, reimbursement.	.783	.988
34. Credentialing	.750	.988
35. Performance Management	.776	.988
39. Support the development and implementation of an organization-wide patient safety program.	.671	.988

42. Support safety surveys; responding and acting on safety recommendations.	.658	.988
43. Ensure staff is clinically competent and trained on their role in patient safety.	.643	.988
44. Articulate the organization's QI program and goals.	.699	.988
45. Identify areas of risk/liability.	.726	.988
46. Ensure staff is educated on risk management and compliance issues.	.757	.988
48. Maintain curiosity and an eagerness to explore new knowledge and idea.	.698	.988
49. Demonstrate reflective leadership and an understanding that all leadership begins from within.	.730	.988
50. Learn from setbacks and failure as well as successes.	.732	.988
51. Assess one's personal, professional and career goals and do career planning.	.794	.988
52. Seek mentorship from respected colleagues.	.684	.988
53. Promote system thinking as a value in the nursing organization.	.781	.988
54. Provide leadership in building loyalty and commitment throughout the organization	.799	.988
55. Utilize change theory to plan for the implementation of organizational changes.	.751	.988
56. Serve as a change agent, assisting others in understanding the importance, necessity, impact and process of change.	.760	.988
57. Support staff during times of difficult transitions.	.732	.988
58. Recognize one's own reaction to change and strive to remain open to new ideas and approach	.784	.988
59. Adapt leadership style to situational needs.	.782	.988
60. Create an environment that facilitates the team to initiate actions that produce result.	.726	.988
61. Hold self and others accountable for actions outcomes.	.721	.988
62. Career Planning	.743	.988
63. Develop own career plan and measure progress according to that plan.	.756	.988
65. Create an environment wherein professional and personal growth is an expectation.	.720	.988
66. Articulate the application of ethical principles to operations.	.778	.988
67. Integrate high ethical standards and core values into everyday work activities.	.742	.988
68. Create an environment that has a reputation for high ethical standard.	.719	.988
69. Advocate use of document based practice	.692	.988
70. Teach and mentor others to routinely utilize evidence-based data and research.	.702	.988
71. Ensure that nurses are actively involved in decisions that affect their practice.	.788	.988
72. Active membership in Professional Organization.	.807	.988
73. Support and encourage others participate in a professional organization.	.701	.988
74. Educate patient care team members on financial implications of patient care decisions.	.713	.988
75. Use corrective discipline to mitigate workplace behavior problems.	.659	.988
76. Create opportunities for team member to be involved in decision making.	.693	.988

77. Reward and recognize exemplary performance.	.695	.988
79. Identify and eliminate sexual harassment, workplace, violence, verbal and physical abuse	.650	.988
80. Identify clinical and leadership skills necessary for performing job related tasks.	.718	.988
81. Provide mentorship and counseling to aspiring clinicians and leaders to develop required skill test	.709	.988
84. Use telecommunication devices.	.734	.988
85. Utilize hospital database management, decision support, and expert system's programs to access information and analyze data from disparate sources for use in planning for patient care process and systems	.703	.988
86. Participate in evaluation of information systems in practice settings	.698	.988
87. Demonstrate awareness of societal and technological trends, issues and new developments as they apply to nursing	.678	.988
88. Demonstrate proficient awareness of legal and ethical issues related to client data, information, and confidentiality	.770	.988