

How Nurses Participate in Clinical Decision- Making Process

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ABSTRACT

Clinical decision-making is an essential element in nurses' professional performance and it makes professional nurses distinctive from amateur personnel from medical care unit. Making clinical decisions by the nurse may affect crucially on therapeutic trend and achieving the expected clinical finding as well as rising satisfaction among patients. The clinical decision making by nurses influences in quality of medical care more than any other factor and process of clinical decision making may contribute to identifying patients' requirements and determination of the best nursing effort. The present study is intended to determine how nurses could participate in process of clinical decision making for patients. A descriptive-analytical case study has been carried out by means of classified random method on 285 employed nurses in different training medical units from Tabriz University of Medical Sciences in 2009. Participation in Decision Activities Questionnaire (PDAQ) was tool for gathering data. The collected information was analyzed by SPSS15, statistical software. Results came from this study indicated that clinical decision making by nurses was in average status at all three steps in decision making trend, including identifying the problem solving (30.35 ± 15.01), purposing of solution (29.23 ± 14.64) and execution of problem solving (27.13 ± 14.15) while the higher score was acquired at phase of identifying the problem and then at stage of purposing of solution and eventually the least score was obtained at execution step for the solution. With respect to the results, it seems that it requires providing the adequate ground for nurses to acquire ability for clinical decision-making skills. Thus in this sense, it is suggested to identify the existing barriers and to provide conditions to facilitate independent practice and needed platform for empowerment of decision making skills by educational system and professional organizations.

KEYWORDS: Decision Making, Participation, Nursing

1. INTRODUCTION

Nowadays, nurses are exposed to complicated situations in the field of health and medical care, which are originated from High Technology and patients' high perception, rising age of community, and process of complex diseases and modifications in ethical and cultural factors. Making proper decisions in nursing measures may cause medical and logical design at maximum possibility for success [1]. Clinical decision making is a process of critical thinking in selection of optimal practice to achieve the appropriate goals. Decisions should be made when several options are purposed and or a possibility is provided for doing an action. Thus, several plans should be evaluated and apt decision must be made on certain circumstance [2].

There is no dispute over this matter that nurses' on time and properly decisions making affects on acceleration of advancement process for patients' treatment and addressing them further and also lowering treatment costs. The nurses' on time and properly decisions making is followed by improvement in quality of medical care. Similarly, lack of making proper and on time decisions may cause problems in treatment phases and delay in medical care for patients [3]. On the other hand, in comparison with physicians, nurses may spend more hours with patient and in many occasions, due to the lack of on time presence by therapist physician, nurses' decisions play a vital role in this regard [4].

Clinical decisions made by nurses effect on quality of medical care more than any other factor [5]. Results of studies show that nurses often feel that they are weak in their workplace [6]. Therefore, with respect to the existing issues in participation of nurses in decision making, it seems necessary to examine nature of participation by nurses in making such decisions [7]. The higher understanding of nursing decision making may enhance work ability in relation to patient. The main advantage of this process for nurse as a person is in strengthening of his/her status within medical care team. The more clear decision is made, the better understanding will be acquired by individuals and this improves quality of profession. Today in advanced countries, it is extremely emphasized on importance of employees in medical professions in their decision making for the patients [8]. Anthony M.K. mentioned clinical decision making stages according to Table 1 [9]:

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Table 1. Clinical decision making model according to Anthony's view (1997)

Steps	Clinical decision making steps	Description of phase
Phase 1	Purposing of points regarding to problem	Description and evaluation of problem and its interpretation
Phase 2	Presentation and evaluation of alternative solutions	Analysis and review of multiple solutions
Phase 3	Selection of alternative solution	Choosing the optimal choice as solution for the given problem

In general, it necessitates for them to identify and diagnose the problem in decision making process and evaluate the existing solutions and finally to select the optimal choice. The greater degree of freedom and autonomy an individual has, he/ she could purpose more accurate decision making and the higher satisfaction will result from this effort.

Nurse should consider all different aspects by purposing several questions and analysis of information and take the foremost possible method to do this task [10]. As a result, with respect to clinical problem, the importance of this subject and crucial responsibility of nursing profession become evident in properly decisions making and fewer studies have been conducted in the present investigation by aiming at review the way of nurses' participation in clinical decision making process.

2. MATERIAL AND METHODS

This study is a descriptive-analytical research that reviews the way of nurses' participation in the process of clinical decision making. Population of this study includes nurse with AA- BA- MA degrees, who are employed in Medical training centers at Tabriz University of Medical Sciences but not recruited for managerial jobs and with at least 1 year working experience in nursing job. Sampling has been done in studied environment from Internal and Surgery Units, Intensive Care Unit (ICU) and Coronary Care Unit (CCU) in medical training centers at Tabriz University of Medical Sciences by means of classified random sampling technique. Initially, according to number of nurses in any center, their sample size was determined and sample participants were chosen with respect to quantity of nurses in each of sampled units. Sample size was obtained as 267 participants so in order to increase validity of this study sample group was examined with 300 participants but since some of questionnaires were not submitted therefore at last 285 samples were taken into consideration. Afterwards, questionnaires were distributed among those participants who were inclined to participate in this study in morning, evening and night work shifts. The criteria for exclusion of some participants were nurses with less than 1 year working background and nurses who were employed in managerial jobs.

In the current research, PDAQ questionnaire was a tool for gathering information from nurses. In this questionnaire, some issues were examined including way of nurses' participation in clinical decision making at three steps and their participation in diagnosis of problem, evaluation of the suggested solutions and selection of the optimal alternative [11]. PDAQ questionnaire is made up 12 questions where after purposing any case, a question is asked. If the answer is "NO" then nurse should fill out the table relating to clinical decision making phases at three phases of identifying problem, evaluation of the suggested solutions and selection of the optimal solution that is expressed as 6- choice scale, ranging from "Never" to "Always". At any step, each of decision making has score 0-5 where zero (0) = lack of participation and 5 (participation at highest rate), and then the resultant scores are added together and their average is characterized as mean value at any phase. The higher scores show further participation in decision making. In this field of problem diagnosis, purposing of solution and execution of solution, 12 questions were considered for any phase and totally 36 questions were raised where total score ranged from 0 to 60 at any field. The scores taken by each of three sub-groups were leveled as "Weak", 21-40 as "Fair" and 41-60 as "Good". To determine scientific validity, Content Validity was utilized and to identify reliability of data collection tool, Test-retest method was adopted. Pearson Correlation Coefficient was calculated as ($r=0.87$). The data, which derived from this study by statistical descriptive-method (frequency- percentage and mean \pm standard deviation), were examined and analyzed via SPSS.15 statistical software. Normalization of data distribution was assessed by conduction Kolmogorov-Smirnov (K-S) Equality Test.

3. RESULTS

Table-2 shows the related data to distribution of response "Yes/No" frequency to questions in clinical decision making inventory at the studied samples. With respect to questions, if nurse does not initially intend to involve in procedures of clinical decision making and he/ she informs other personnel in treatment team like physician or reserved supervisor, response "Yes" is characterized here for this question; however, if he/ she personally conducts decision making process and takes decisions making steps, the answer "No" has been shown here.

Table 2. Frequency of distribution for answer “Yes/ No” to questions in clinical decision making inventory among the studied samples

Questions of clinical decision making	Yes frequency (%)	No frequency (%)
Pain control	80(28.1)	205(71.9)
Prevention from skin injuries	50(17.5)	235(82.5)
Diagnostic tests	147(51.6)	138(48.4)
Non execution of physician's prescription	130(45.4)	155(54.4)
Training patient how to take drug	52(18.2)	233(81.8)
Informing patient or his/ her family about risks of surgery	57(20.0)	228(80.0)
Counseling with physicians, nutrition specialists, social workers and other healthcare experts	160(56.1)	125(43.9)
Contribution to ease of patient's discharge from unit	111(38.9)	174(61.1)
Support from patient's decision or his/ her family in opposition to duration of treatment	122(42.8)	163(57.2)
Purposing medical goals to patient and or his/ her family	95(33.3)	190(66.7)
Doing physician's prescription regarding startup diet and doing motor activities	84(29.5)	201(70.5)
Nurse's reaction to physician's complaints regarding to medical care for patient	78(27.4)	207(72.6)

With respect to Table 2, the majority of nurses are asked directly for comment about counseling with physicians and other healthcare specialists and they do not personally involve in decision making phases. Regarding prevention from skin injuries, on most of occasions nurses personally make decision about patient and they rarely refer to physicians directly proportional to other cases.

Table 3. Review way of decision making at any phase based on “weak-fair-good” classification

Element of clinical decision making	Way of clinical decision making	Frequency	Mean± Standard Deviation	Mean± Standard Deviation
Diagnosis of problem	Weak (1-20)	74(26.0)	9.5±6.03	
	Fair (21-40)	129(45.2)	31.62±5.8	30.35±15.01
	Good (41-60)	82(28.8)	47.13±4.4	
Purposing of Solution	Weak (1-20)	78(27.3)	9.5±6.1	
	Fair (21-40)	131(46.0)	31.3±6.04	29.23±14.64
	Good (41-60)	76(26.7)	45.9±3.9	
Execution of Solution	Weak (1-20)	96(33.7)	10.2±6.08	
	Fair (21-40)	133(46.7)	31.5±5.1	27.13±14.15
	Good (41-60)	56(19.6)	45.5±3.6	

With respect to Table 3, obtained results indicate that way of decision making is at average level in all three phases and higher score has been acquired at problem identifying process and afterwards in purposing solution phase and finally in stage of executing solution the lowest scores have been obtained.

4. DISCUSSION AND CONCLUSION

Despite of importance of decision making for nursing job, this matter has not yet acquired its appropriate status in this profession. Some of nursing researchers argue that nurses generally could rarely make independent decisions and nursing students are more dependent, submissive and passive than students in other professions. Moreover, despite of passing three decades from extended studies, process of nursing clinical decision making is yet unclear [12]. In this study, way of nurses' decision making was at average level in all three phases. This parameter has been also at this level in study done by Krairiksk M. results came from the current study could obtain greater score in the process of diagnosis of problem and then the least scores were acquired in stage of purposing solution and eventually in execution phase of solution. At the same time, in results obtained from Krairiksk's study, mean values of scores did not highly vary at all 3 steps so that nurses' participation was greater in section of choosing solution and participation in this phase was higher than in process of executing solution [13].

Results of his study are complied with findings came from studies of Prescott et al. [14] and Anthony [11]. In the present study, nurses have acquired higher scores in problem diagnosis phase than other stages and executed decisions lesser at last phase; therefore, an environment should be prepared so that nurses to manage execution of decisions in mind more easily and in fact it is likely that workplace is in such a way that problems to be identified while their solutions could not be executed. Also in another study done by Adib Haj Bagheri, the foremost effective internal factors on clinical decisions were enjoying clinical adequacy and self-confidence while

organizational culture, access to supportive structures and nursing education have been the paramount effective external factors on clinical decision making [3].

The setting, where process of decision making is done, is one of the important issues in quality of decision making [15]. On different situations, nurse is acquiring experience and he/ she should consider obtained information and experiences. Gradually over the time, knowledge and experiences may be obtained and they cause increasing his/ her skill and ability in making decisions and proper and intellectual judgments [10]. According to Lauri [16] and Cioffi [17], education could not be effective on ability for decision making by itself and on the other hand findings of Hill [18] show that students with highly critical thinking skills may make better clinical decisions, whilst the level of critical thinking is not so high among students [1] and nurses [19]. Another effective factor, which has been identified in decision making for time, is time pressure (stress) that makes decision maker to adopt less valuable and probably less accurate strategies [19] so working stress in these units may be purposed as an important factor in this study.

In the present research, the maximum frequency (82.5%) relates to “making decision about prevention from skin injuries”, while in Krairksk’s study, due to a series of predetermined instructions such as instruction for prevention from skin injuries, trainings in general and training of patient and his/her family for taking medical drug have limited nurse’s activity in the field of clinical decision making [13].

Given that application of participative plans requires using internal skills and adequate knowledge in nurses so it seems necessary to take help from some tools to inform nurses about decision making process. Thus with respect to the results, it is suggested to nursing directors at higher levels to adopt behaviors that increase nurses’ participation in clinical decision making (like proposals system). They may improve nurses’ participation in decision making by empowerment and developing clinical decision making skill and finding the appropriate strategies for them and through counseling with them in problem solving process, giving help in occupational critical situations and at the same time granting the suitable motivating rewards. Similarly, they may take step toward increasing the clinical decision making by means of properly management and employing experienced nurses along with younger (novice) nurses in medical units to use their experiences and supporting from the younger nurses by the experienced nurses.

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