



INVESTIGATING ACCOUNTABLE EDUCATION STATUS IN DEPARTMENT OF MEDICAL SURGICAL NURSING

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ARTICLE INFO

Received:

03th Jun 2017

Accepted:

29th Nov 2017

Available online:

14th Dec 2017

Keywords: *Accountable education, Departments, Program assessment, Nursing education.*

ABSTRACT

Background: The main mission of nursing education is to train competent and capable nurses, who qualify the required skills and knowledge for providing high-quality nursing care as well as maintaining and promoting the society's health. Description of the status of accountable education in departments is a plan for investigating the procedure of educational activities with the aim of promoting the quality of education.

Methods: The present descriptive cross-sectional study was conducted in Department of Internal-surgery, Faculty of Nursing and Midwifery, Tabriz University of Medical Sciences, in 2016, using a questionnaire derived from the social accountability standard indices (10 domains, 25 criteria and 85 indices). Accordingly, after interviewing and consulting with the informed and key individuals for collecting the necessary data, the required documents were identified and investigated. Subsequently, the questionnaire was completed and scored. Finally, the collected data were statistically analyzed.

Results: On the whole, the research findings showed that, in terms of the accountable education indices, the status of Department of Internal-surgery was at the medium level by acquiring 76 points (equivalent to 29.8%) out of maximum 255 possible points so that, among the indices of 10 domains of accountable education, the highest score (41.7%) belonged to the second domain (cooperation and interaction with the health system), while the lowest one (16.7%) belonged to the tenth domain (society's role).

Conclusion: Regarding the importance of accountability indices and their relationship with the ultimate achievement of education, i.e. accountable learning, it is necessary to provide some educational methods and sensitize the education and research system toward the requirements, participation and role of the society in order to improve productivity and accountability in the educational system and promote the status of education in the departments.

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To Cite This Article: Flora Baghban Rezvan, Reza Ghaffari, Maryam Baradaran Binazir, (2017), "Investigating accountable education status in department of medical surgical nursing", *Pharmacophore*, **8(6S)**, e-1173159.

Introduction

The main mission of nursing education is to train capable and competent nurses, who qualify the necessary knowledge and skills for providing high-quality nursing care as well as maintaining and promoting the society's health [1]. Today, along with the progress of other sciences, nursing course is being developed and evolved as a vital profession. One of the main methods for optimizing the human force is accountable education, which leads to the improvement of skills and knowledge level of nursing personnel [2].

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Universities and faculties have been emerged with the philosophy of accountability in order to meet the needs and requirements of the society; in other words, accountability is an inseparable part of the philosophy of educational centers since their emersion. Such philosophy has been always an inevitable and undeniable issue.

Besides, such an issue is of great importance in the faculties and departments of medical sciences because they are responsible for meeting the needs and requirements of the society through the service providing system [3]. Nevertheless, accountable education in nursing as well as its skills and capabilities for nursing care has been criticized several times [4]. The American Nurses Association (ANA) says that the graduate students of nursing must be prepared for performing their duties with regard to the rapid changes in the market and health system [5]. Furthermore, the American NNA (National Nurses United) has stated that, with respect to the evidences, it is necessary to apply changes to the health-services providing systems and market demand as well as modifications on training of the professional nurses [6].

In a research (2004) conducted by Utley-Smith in 174 hospitals, the obtained results showed that 75% of the inexperienced nurses lacked the necessary competencies for performing the clinical activities. Moreover, the nursing trainers reported that the newly graduated nursing students did not have the required skills for performing the clinical skills, logical thoughts, time management, communicational skills and teamwork skills. A study conducted by Kenward (2004) in USA on 7500 nursing graduates demonstrated that 75.5% of them were RN nurses, one fifth of whom had problems in performing their duties. Besides, 52% of the investigated RN nurses reported that they were not prepared for performing their clinical activities [6]. Results of a study (2010) on the nurses' clinical competencies in Iran showed that 61.3% of the nurses and 64% of the head nurses believed that the nurses' competencies were at a low level [7]. Also, some of the experts have reported the shortage of scientific education and the distance between theory and practice in nursing. Meeting the nurses' educational needs results in providing care with high-quality and -quantity [8], which accelerates the procedure of the treatment and recovery, and increases the feeling of confidence and trust among the patients at the time of providing the care, subsequently leading to a reduction in their occupational stress and anxiety [9]. On the other hand, lack of sufficient knowledge and skill in these individuals sometimes causes adverse events, which are often very hard or even impossible to be compensated for [10]. In sum, such lack of knowledge and skill eventually leads to dissatisfaction in the system [11]. Authorities of nursing and midwifery should identify the factors affecting the quality and quantity, and introduce the preventive and negative factors under the title of "education problems" [12-13].

Description of accountable education status in departments is a plan for investigating the procedure of educational activities with the aim of promoting the education quality through a target-based approach. This plan is executed through a process, which leads to judgments, recommendations and suggestions for the improvement of education quality. Performing such investigations is essential for all departments and is a basis for investigating the external states, which is carried out by other departments of universities and relevant departments in other universities. Ultimately, these sum-ups are the basis for validating the universities in order to approve their competency in the procedure of educational development, specifically in relation to the development of post-graduate studies and establishment of new courses [14-15].

In other words, one of the requirements of the dynamics of an education system is to describe and investigate its status. Lack of a process for investigating the continuous status in education systems would result in its recession. Through such a process, the elements of education systems consciously examine the status of the set of elements, processes and outcomes within the system [14, 16].

Since the foundation of Faculty of Nursing and Midwifery, Tabriz University of Medical \sciences, in 1986, Department of Nursing Internal-surgery has been one of the active departments that has exhibited the greatest role and activities among the departments during the four-year period of undergraduate nursing by covering 31 theoretical units and 18 internship ones. Since until the time of the present research, no study had been conducted on the description of accountable education based on the ten domains in this or even other departments at the level of faculty, the authors decided to investigate the status of intra-department accountable education with respect to the suggested programs of the Medical Sciences Education Development Center of the relevant ministry and with regard to the importance, position and advantages of accountable education. Results of the present study will not only provide the ground for conducting similar studies in other departments, but also will help department members to identify the weaknesses and strengths of the teaching-learning program and eliminate its defects in order to improve the quality of education. In other words, description of the status has an inevitable role in modifying and improving the ultimate goals of a department provided that the department members along with the authorities and experts of the educational system, after finishing the study and presenting the obtained results, attempt to remove the obstacles, correct the adverse indicators, reinforce the strong points and re-investigate the results and feedbacks of their attempts by describing the internal status. Moreover, applying the results of the present study would help avoid re-working in education as well as unnecessary trainings that are time-consuming and costly. Furthermore, timely education programs can lead to the progress of the human force based on their educational needs, which would consequently result in the progress in performance of the nurses and improvement of patients. Therefore, respecting the importance of description of accountable education status in nursing course, the present study was aimed to determine the status of accountable education in Department of Internal-Surgery, Faculty of Nursing and Midwifery, Tabriz University of Medical Sciences, in order to identify the weaknesses and strengths of the given department and accomplish continuous promotion of effectiveness and quality of education in this faculty.

Materials and Methods

The present descriptive cross-sectional study was conducted in 2016 in order to determine the status of accountable education in the Department of Internal-Surgery, Faculty of Nursing and Midwifery, Tabriz University of Medical Sciences. Data collection was performed using a questionnaire, consisting of two sections: demographic information such as age, gender, scientific level, working background, employment status, education, course of study and email, and 10 domains, 25 criteria and 85 indices related to social accountability. The questionnaire was prepared based on the social accountability indices developed by Dr. Jalilian et al. (2015). Afterwards, in order for data collection, the required documents and resources were identified and investigated; then, the questionnaire was completed and scored. Finally, the collected data were statistically analyzed.

To quantify the qualitative variables for the items of the questionnaire, score of each index (0-3) was determined as follows: (Never/0 point; Sometimes/1 point; Often/2 points; Always/3 points)

The obtained points of the indices, criteria and domains were investigated. In order for statistical analysis with regard to the obtained scores of each index (0-3), the total number of the indices in each criteria and each domain, the total number of indices (85) and maximum score of the total indices (255) were determined between 0 and 100 as follows:

0-25%/Weak;

25%-50% / Medium;

50%-75% / Good;

Above 75% / Excellent)

Compiling the social accountability indices in medical faculties was performed by Dr. Jalilian et al. in a qualitative study in order to obtain the opinions of the relevant experts using Delphi technique in three steps as follows:

In the first step, after investigating and studying the “Global Consensus for Social Accountability in Medical Education” as well as several articles and utilizing the opinions of the relevant professors, the draft of the tables related to the given domains, criteria and indices was prepared.

In the second step, during the first round of Delphi technique, the prepared tables were given to 20 professors who had been selected through purposive non-random sampling method. These professors were selected from among those who had been graduated from medical courses, those who had conducted studies on social accountability and those professors who had been active in the field of community-oriented medicine and were present at Tabriz University of Medical Sciences as well as other medical universities. Subsequently, in the first session of the concentrated group discussion entitled experts panel composed of the experts of medical education (2 instructors and 1 assistant professor), social medicine (1 assistant professor), and treatment and health services management (1 instructor), the collected opinions and ideas were categorized and, then, applied after establishing the necessary modifications and corrections.

In the third step and second round of Delphi technique, the modified set was sent to the same 20 professors who were among the experts of medical education and community-oriented medicine and had been selected using purposive non-random sampling method. The collected ideas and opinions were presented in the second session of the concentrated group discussion and, then, after final establishment, were compiled in 10 domains, 28 criteria and 95 indices.

It must be noted that validity and reliability of the used accountability indices had been previously confirmed by Dr. Jalilian et al. with respect to the criteria of accuracy and firmness of the qualitative studies, including confirmability, validity, transferability and reliability [17].

In Pourabbas et al.'s (2015) study, validity of the indices was again investigated in terms of content through the same method used by Dr. Jalilian et al (Delphi and focus group methods) for investigating the indices in the department. However, some of the indices were eliminated due to their irrelevance to the subject so that, eventually, 10 domains, 25 criteria and 85 indices were finalized [18].

Validation of the tools used in the present study was performed using superficial and content validation methods. Accordingly, the questionnaire was given to three members of the faculty members of nursing education so that, after confirmation by these faculty members, again 10 domains, 25 criteria and 85 indices were finalized.

In Pourabbas et al.'s (2015) work, reliability of the indices in the departments of medical schools was reported by the Cronbach's alpha coefficient of $\alpha=0.95$. Moreover, in the present study, in order to assess the internal identicalness of the tools after distributing the questionnaire among all the professors of Department of Internal-surgery Nursing (24 professors), the Cronbach's alpha coefficient of $\alpha=0.98$ was confirmed. Subsequently, permission of the present study was obtained after gaining the utilization permission from the compilers of the accountable education assessment indices, obtaining the research permission from the medical education's R&D center as well as the ethical permission of Ethical Committee of Tabriz University of Medical Sciences (Ethical code: IR.TBZMED,REC1395.840), obtaining the informed and voluntary consent of the participants, presenting the introduction letter to Education Vice Chancellor of Faculty of Nursing and Midwifery and introducing the researcher through a letter from Education Vice Chancellor of Faculty of Nursing to the head of Department of Internal-surgery and faculty members.

The researcher described the research objectives to all the members of Department of Internal-surgery and other informed and key individuals including the chief of National Health Management Center, chief of Qualitative Studies Center, Education Vice Chancellor of the faculty, director of Continuous Education Development Office of the faculty, director of the department

internal assessment, head of the department, head of Elite Talents Office of the faculty, Education Vice Chancellor of the department, and Research Vice Chancellor of the department. Then, with cooperation of these individuals, the relevant stages were identified, the documents were investigated and, then, the collected data were analyzed. Finally, the obtained results were expressed using descriptive statistics.

Results

Apropos of the demographic information, the age of half of the department members was above 43 years, the male-to-female ratio within the department was above two third (70.8%), the education level of nearly half of the department members was PhD (45.8%) with the working background of 13-24 years (45.9%), more than half of the members were studying in the sub-field of internal-surgery (58.3%) with official employment status (54.2%) and 62.5% of them were at the scientific level of instructor.

The results obtained on the status of social accountability indices in this department showed that:

1- Indices of the domain of *predicting the society's needs in Department of Internal-surgery Nursing* obtained 12 out of 36 points (equivalent to 33.3%); thus, regarding the predefinition of the status determination in the present study, the department status was determined at medium level. As for the criteria, the minimum score, which was 5 (equivalent to 27.8% of the points), was given to the criterion of incorporating the basic values and criteria of accountability, mission and objectives into the strategic plan of the institute).

2- Indices of the domain of cooperation and interaction with health system in Department of Internal-surgery Nursing obtained 5 out of the maximum 12 points (41.7%). Thus, with regard to the predefinition of the status determination in the present study, the department status was determined at medium level. As for the relevant criteria, the minimum score (2 points equivalent to 33.3%) was given to the criterion of promoting the active role of the department and educational experts in policy-making and studies on health system and other sectors of the community.

3- Indices of the domain of training and providing efficient human forces in Department of Internal-surgery Nursing acquired 18 out of maximum 48 points (equivalent to the score of 37.5%). Thus, with regard to the predefinition of the status determination in the present study, the department status was determined at medium level. As for the relevant criteria, the minimum score (6 points equivalent to 25%) was obtained by the criterion of estimating the courses, levels, training courses and student acceptance rate based on the current and future needs of the society.

4- Indices of the domain of achievement-based education in Department of Internal-surgery Nursing obtained 14 out of maximum 48 point (equivalent to the score of 29.2%). Thus, regarding the predefinition of the status determination in the present study, the department status was determined at medium level. As for the relevant criteria, the minimum score (2 points equivalent to 22.2%) was given to the criterion of determining the achievement proportionate to the society's needs in order to determine the educational plans and objectives.

5- Indices of the domain of accountable and effective management in Department of Internal-surgery Nursing obtained 6 out of maximum 30 points (equivalent to 20%). Thus, in accordance to the predefinition of the status determination in the present study, the department status was determined at weak level. As for the relevant criteria, the minimum score was given to the criterion of resources and financial management.

6- Indices of the domain of standards in Department of Internal-surgery Nursing obtained 7 out of maximum 30 points (equivalent to 23.3%). Thus, regarding the predefinition of the status determination in the present study, the department status was determined at weak level. As for the relevant criteria, the minimum score was given to the criterion of revision of the existing educational standards in all the domains of input, process and products.

7- Indices of the domain of promoting the quality in Department of Internal-surgery Nursing obtained 7 out of maximum 24 points (equivalent to 29.2%). Thus, with regard to the predefinition of the status determination in the present study, the department status was determined at medium level. As for the relevant criteria, the minimum score (2 points equivalent to the score 22.2%) was given to the criterion of department in an organized process fully supports application of the comprehensive measurement tools for organizational assessment and promotion, and such a process will be perfectly clear and fully accessible for all the beneficiaries.

8- Domain of essential mechanism for validation in Department of Internal-surgery Nursing obtained 4 out of maximum 12 points (equivalent to 33.3%). Thus, regarding the predefinition of the status determination in the present study, the department status was determined at medium level.

9- Domain of global principles and requirements in Department of Internal-surgery Nursing obtained 1 out of maximum 3points (equivalent to 33.3%). Thus, regarding the predefinition of the status determination in the present study, the department status was determined at medium level.

10- Domain of society's role in Department of Internal-surgery Nursing obtained 2 out of maximum 12 points (equivalent to 16.7%). Thus, in accordance with the predefinition of the status determination in the present study, the department status was determined at weak level.

Discussion and Conclusion

Based on the results of the present study, status of Department of Internal-surgery nursing in terms of accountable education indices can be determined at medium level with respect to the obtained score of 76 out of maximum 255. Among the 10

domains of accountable education, the maximum and minimum scores belonged to the indices of the second domain (cooperation and interaction with health system) with the score of 41.7% and tenth domain (society's role) with the score of 16.7%, respectively.

On the whole, results of the present study were consistent with those of Pourabbas et al.'s (2015) conducted on internal medicine, surgery and pediatrics departments of Tabriz University of Medical Sciences in order to investigate the status of social accountability indices through exploring the documents, interviews and observations, which indicated good performance of Department of Pediatrics, medium performance of Department of Psychiatry and weak performance of Department of Internal Medicine and Surgery [18].

In Entezari et al.'s (2016) work, entitled Challenges of community-oriented medical education in Iran, which was conducted through qualitative method in order to investigate the status of community-oriented medical education in Iran, all the universities of medical sciences and health and treatment services across the country were investigated by Medical Sciences Education R&D Center, Ministry of Health, Treatment and Medical Education. Accordingly, it was shown that, out of 38 investigated universities, 28 were at weak level and only 2 were at strong level. Besides, 4 universities had not reported their status [19]. Another study, entitled Investigating opinions of faculty members of basic and clinical sciences of the subsidiary colleges of Mashhad University of Medical Sciences on accountable medical education, which was conducted by Zahed Moghaddam et al. (2012) using analytical cross-sectional method in faculties of medicine, dentistry, pharmacology, nursing, paramedicine, health and complementary traditional medicine on 133 faculty members in order to determine the awareness and knowledge level of the university professors of accountable medical sciences education as well as its position in the universities, showed that the awareness level of these professors about accountable education was limited [20]. Although this study was different from the present research in terms of the procedure of investigating accountable education, the obtained results were consistent.

Results of the study, entitled Analysis of status of accountable medical education and innovative viewpoints of faculty members of School of Medicine, Kerman University of Medical Sciences, conducted by Dehghani et al. (2013) to promote the existing status based on the weaknesses and strengths, opportunities and threats in Kerman University of Medical Sciences, showed that the status of this kind of education was at the position of weakness-threat. These results were consistent with those of our study, which indicated the general status of the accountable education indices at medium level and status of three domains at weak level [21].

Findings of Akbari Farmad et al.'s study, entitled Clarifying faculty members' perception of existing challenges in accountable medical education: A qualitative content analysis, which was conducted using qualitative method, embraced four main themes including deficient and non-community-oriented education, managerial problems **and** shortage of resources, lack of sufficient commitment among professors as role models and lack of motivation among students. These findings were inconsistent with those of our study in terms of obtaining the minimum score in domains of society's role, accountable management and standards, which might be due to the difference in the type and method of research [22].

One of the major goals of the research is to utilize its results so that it can lead to improvement of the quality of the services and help solve the problems. The researcher hopes that the findings of the present study can be useful for improving the educational performance in the following fields:

Management: Regarding the importance of the society's role in accountable education, which is an essential basis for improving the efficiency, effectiveness and productivity in future and with regard to the relationship between accountability indices and improvement of the ultimate achievement of education, i.e. learning, it is necessary to provide solutions and strategies for changing educational approaches and sensitizing the research and education system to the needs, cooperation and role of the society in order to increase accountability and productivity within the educational system and improve the educational status within the departments. Using the findings of the present study, the authorities and managers of the departments and institutes can execute various plans and strategies to create disciplined programs with the concept of accountable education indices in order to promote improvement rate of the accountability status through improving the quality of education.

Research: Findings of the present study can be a basis for further studies in future, especially interventional studies, in order to provide the ground for expanding the knowledge and science as well as identifying and eliminating the relevant problems.

Education: Findings of the present study can help education authorities provide appropriate solutions and strategies for the departments in order to comprehensively identify the advantages of accountable education for students, professors and society. Moreover, the present study not only can pave the ground for further studies in other departments, but also help the department members identify the weaknesses and strengths of the teaching-learning program and resolve the problems in order to improve the quality of education. Besides, these findings would lead to the presentation of some recommendations and suggestions for improving and promoting the quality of education.

Research limitations

Limitations of the present study included lack of cooperation of some of the informed and key individuals for responding to and spending enough time on providing the required documents, insufficient insight or lack of mindfulness among some of the informed and key individuals for perfect perception of the indices.

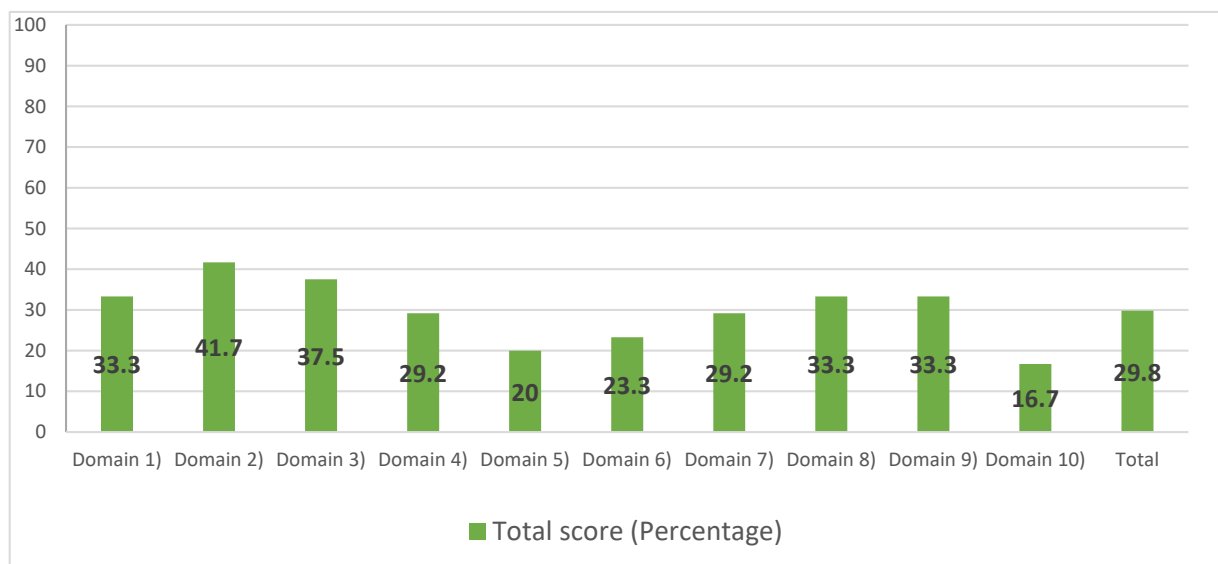
Acknowledgements

The authors would like to appreciate the head of Continuous Education Development Office of the faculty, authority of Internal Assessment of the department, head of the department, director of Elite Talents Office of the faculty, who intimately helped us conduct the research and investigate the relevant documents. Besides, the authors would like to acknowledge all the members of Department of Internal-surgery who participated in this project and helped us in different phases of the research.

Table 1: Determining the status of indices of 10 domains of accountable education in Department of Internal-surgery Nursing

No	Domain	Number of criteria	Number of indices	Maximum score	Obtained score
1	Predicting society's needs	3	12	36	12 (33.3%)
2	Cooperation and interaction with health system	2	4	12	5 (41.7%)
3	Training and providing efficient human forces	3	16	48	18 (37.5%)
4	Achievement-based education	4	16	48	14 (29.2%)
5	Accountable and effective management	3	10	30	6 (20%)
6	Standards	3	10	30	7 (23.3%)
7	Quality improvement	3	8	24	7 (29.2%)
8	Essential mechanism for validation	1	4	12	4 (33.3%)
9	Global principles and local requirements	1	1	3	1 (33.3%)
10	Society's role	2	4	12	2 (16.7%)
	Total	25	85	255	76 (29.8%)

Diagram 1: Status of accountable education indices in 10 domains of accountable education in Department of Internal-surgery Nursing



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