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Patient education process in teaching hospitals of Tehran University of Medical Sciences

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Abstract

Background: Patient education is widely recognized as a core component of nursing. Patient education can lead to quality outcomes including adherence, quality of life, patients' knowledge of their illness and self-management. This study aimed to clarify patient education process in teaching hospitals affiliated to Tehran University of Medical Sciences (TUMS) in Iran.

Methods: This cross-sectional study was conducted in 2013. In this descriptive quantitative study, the sample covered 187 head nurses selected from ten teaching hospitals through convenience sampling. Data were collected with a questionnaire developed specifically for this study. The questionnaire measured patient education process in four dimensions: need assessment, planning, implementing and evaluating.

Results: The overall mean score of patient education was 3.326±0.0524. Among the four dimensions of the patient education process, planning was in the highest level (3.570±0.0591) and the lowest score belonged to the evaluation of patient education (2.840 ±0.0628).

Conclusion: Clarifying patient education steps, developing standardized framework and providing easily understandable tool-kit of the patient education program will improve the ability of nurses in delivering effective patient education in general and specialized hospitals.

Keywords: Patient Education Process, Head Nurse, Teaching Hospitals.

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Introduction

Patient education is recognized as a part of quality in delivery of health care(1). Increase in the prevalence of chronic diseases and aged population requires the nurses to engage in new patterns of care in a longer period and help patients to care for themselves (2, 3). Patient education aims to provide adequate and relevant clinical information, with the goal of increasing understanding of illness condition and health promoting behavior (4); it is considered as the most significant executive roles of hospitals that will lead to better patient outcome (5, 6). Studies show that patients with instructions of their after-hospital care, including how to take their medicines and when to make follow-up appointments are 30% less likely to be re-admitted than those who lack this information (7, 8). Failure to provide such information causes patient dissatisfaction and complaints (9-11). Therefore, the nurses are in a key position to positively affect the lives of patients

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through education, producing potentially longstanding changes in patients' lives(12). According to the evidence and studies, the patient education process includes need assessment, planning, implementation and evaluation (13-16). The first step is assessing the patient's learning needs, learning style and readiness to learn. Assessment includes what patients know, what they want and need to know, what they are competent to learn and what is the best way to teach (17, 18). In fact, without a good understanding of patient needs and associated factors, patient-centered care is unlikely to occur (19). The second step is to develop a plan. A successful patient education program is dependent on a well-designed plan comprising of the goals and objectives of the educational process (13). The third step in the process is to implement an individualized teaching plan, which includes interactive teaching. Lastly, evaluation that includes constant assessment of the patient's learning improvement during and after the teaching (7, 20).

Kelo et al. in a qualitative study explored nurses' behavior in the patient education process with holistic, patient-oriented education and interactive communication. They found that patient education is often insufficient, fragmented and is conducted without setting any obvious goals (16). In Marcum and Bergh survey, inadequate time and staffing were barriers for patient education (21-23). In addition, evidences reveal that nurses may not know or understand the teaching process; and therefore, patient education is performed in an unorganized fashion (15, 16, 24). In the mentioned studies, applying a comprehensive approach and implementing an interaction between the elements of patient education are rarely considered. Moreover, in most researches, the role of senior managers and their involvement in patient education process has been neglected.

The purpose of this study was to investigate the dimensions of patient education process including need assessment, planning, implementation and evaluation in teaching hospitals affiliated to Tehran University of Medical Sciences (TUMS) in Iran.

Methods

This cross-sectional, quantitative study describes patient education process at ten randomly selected teaching hospitals (both general and specialized) in 2013. Empowering the system of providing fruitful patient education program about the disease process and strategies to manage the diseases and instructing other nurses is the critical role of head nurses (25). On the other hand, they are the line managers in hospitals who directly supervise the processes; therefore, they know and can judge the process of patient education in their wards. The study sample covered 187 head nurses selected from teaching hospitals affiliated to TUMS by convenience sampling. The ethics committee approved the study protocol and all participants were informed about the objectives of the study.

A researcher- made questionnaire was developed based on the literature review and consultation with experts. The questionnaire contained two parts: the first part consisted of queries about the general characteristics of the nurses; and the second part consisted of 31 items including need assessment of patient education (13 items), planning for patient education (5 items), implementation for patient education (5 items) and evaluation of patient education (8 items). A five point Likert scale, ranging from 1= never to 5 = always, was applied. To test the validity of the questionnaire, peer review method was used and the comments of 10 experts in the fields of nursing, medicine and health management were applied. A pilot study with 30 head nurses was conducted to test the reliability of the instrument (with the Cronbach's a >0.85). SPSS software and descriptive statistics were used to describe the data.

Results

One hundred eighty seven head nurses participated in this study. They were

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selected from ten teaching hospitals affiliated to Tehran University of Medical Sciences by convenience sampling. Table 1 demonstrates the demographic characteristics of the participants. Based on this table, the majority of the participants were between 40 and 49 years of age, female and had BSc degree.

As demonstrated in Table 2, planning had the highest mean score (3.57±0.059), followed by need assessment (3.53±0.063); the lowest mean scores belonged to evalua-

Table1. Descriptive Statistics of Demographic Characteristics of Participants

Respondents' Characteristics		N	%
Age	20-29	16	8.6
	30-39	59	31.5
	40-49	93	49.7
	>50	19	10.2
Sex	Male	32	17.1
	Female	155	82.9
Employment Status	Official	139	74.3
	Contract	31	16.6
	Projective	11	5.9
	Part-Time	6	3.2
Academic Status	BSc	160	85.6
	MSc	27	14.4

Table 2. Descriptive Statistics for each Dimension of Patient Education Process and its Associated Items (Finding from the Questionnaire)

Need Assessment Dimension	Mean	SD
Identifying Literacy level of the patient	3.65	1.15
Identifying what the patients want to know	3.56	1.03
Identifying the knowledge base	3.41	1.14
Determining the ability of patients in self-caring	3.71	1.10
Determining social statues of patients	3.41	1.18
Determining economics statues	3.42	1.92
Documenting the educational needs in medical records	3.28	1.06
Identify doing daily tasks level	3.70	1.12
Having a written policy on need assessment	3.67	1.16
Determining physical and psychological readiness	3.75	1.03
Determining the level of anxiety and stress	3.64	1.11
Applying standard tools for patient need assessment	3.22	1.16
Involving the patient's family in education process	3.54	1.01
Total	3.53	0.0633
Planning Dimension	Mean	SD
Determining the goals of patient education	3.60	0.99
Determining the contents and topics	3.74	0.95
Determining the educational activities	3.68	1.02
Determining the educational technologies and materials	3.10	1.05
Paying attention to patient education as an integral part of the nursing process and patient care	3.74	1.07
Total	3.57	0.0591
Implementation Dimension	Mean	SD
Determining the facilities for education (especial area, resources)	3.45	0.94
Encouraging patient's participation	3.51	1.09
Attending to patient education in discharge period	3.91	1.07
Following the patients after discharge and home training program	2.06	1.30
Documenting the records of patient education	3.60	1.40
Total	3.31	0.0629
Evaluation Dimension	Mean	SD
Verifying learning with several methods	2.96	1.07
Using repetition	3.12	1.08
Giving feedback (verbal)	3.16	1.12
Using a checklist or any knowledge or skill tests for patient education	2.09	1.27
Assessing the impact of patient education on quality of care	2.81	1.20
Reviewing the results of evaluation by the managers, physician and patient education committee	2.60	1.12
Observing patients for direct and indirect evidence of effectiveness teaching	3.07	1.11
Observing family for direct and indirect evidence of effectiveness teaching	2.91	1.12
Total	2.84	0.0628

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tion (2.84±0.063), followed by implementation (3.31±0.063). Attention to physical and psychological readiness in the need assessment subscale had the highest mean score. The top items with the highest priority for the planning dimension were as follows: determining the educational contents and topics, and attention to patient education as an integral part of the nursing process and patient care. Following the patients after discharge and home training program had the lowest priority, and documenting the records of patient education had the highest priority in the implementation subscale. Finally, using a checklist or any kinds of knowledge or skill tests for assessing patient education had the lowest priority in the evaluation dimension. The top two priorities of this subscale were providing feedback and using repetition, respectively.

Discussion

The patient education process in four dimensions was identified in this research. The result of this study showed that the status of need assessment factor of patient education was weak. This confirms the results of Kelo who claimed that partial need assessment and insufficient information collection were performed on the nurse- oriented approach (16).

Attention was paid to the ability of self-care and the physical status of patients in the need assessment phase. Nevertheless, there were no standard instruments to assess the patient learning needs. The result of Ye HJ study showed that the use of comprehensive and various methods for patient and family education assessment can significantly alleviate mental stress and improve nutrition of the patients, and it can also help the patients to face their illness positively and enjoy a better quality of life (26).

Rankin and Stalling found that anxiety, physical discomfort, financial concerns, emotional status and inability to understand the information make the learning experience unpleasant and ineffective (8). The findings of our study demonstrated that social, economic, physical and psychological status are occasionally considered in presenting educational programs.

It was found that physical and psychological readiness and level of anxiety and stress in patients are considered in educational programs. According to the results of Chien study, the needs-based education can cause significantly lower levels of anxiety and higher levels of satisfaction. Our results support the findings of Willems study in which it was revealed that patients from lower social classes receive less positive socio-emotional utterances and less participatory consulting style (27).

Lack of standard tools, forms and methods for need assessment in the studied hospitals deteriorates the situation. Using appropriate tools for assessing patient needs enables the health care professionals to understand the specific needs of the patients and to determine appropriate care for the patient (28, 29).

Setting goals and objectives appropriately optimizes the learning intervention. It is of prime importance that the nurses be aware of educational objectives, contents and materials. Wingard found that successful implementation of patient education is depend on formulating specific, measurable and achievable objectives properly (13). Nurses should write objectives and educational strategies to aid patients in meeting their demands.

Among the items in the planning phase, determining the educational technologies and materials had the lowest level in this study. However, some studies reported that inadequate teaching materials as a negative factor could cause poor patient education (22).

In our study, considering patient education as an integral part of nursing care had a higher average than other items in the planning dimension. Despite our results, findings of Park study (30) revealed that nurse-patient education activities are mainly informal and reactional instead of being systematic.

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The implementation phase is just carried out at the discharge time by providing information based on the patients' needs. In spite of our findings, the result of Mahrous study indicated that loss, delay and ambiguity at the time of discharge is a common phenomenon which lead to adverse outcomes and dissatisfaction (31). Therefore, in order to facilitate patients' recovery and self-care at home, nurses should identify the educational needs of the patients (32).

The finding of our study support that of Borgsteede study that revealed information needs at discharge time should be tailored based on patient needs such as taking the medication, nutrition, physical activity and alternatives for the prescribed medication and side effects (33).

Following up the patients after discharge and home training program had the lowest score among the implementation factors, and the follow up of the patients was ignored when they were discharged. Teaching the patients about their after-hospital care through enhanced discharge planning may save future costs by reducing the rates of complications, unplanned hospital readmissions and may reduce hospital length of stay (34, 35). Open telephone lines and telephone follow-ups were proposed as appropriate strategies (36).

The final set of criteria in patient education is evaluation. Engaging patients in their caring process and taking the patients' views on the education process is inevitable for measuring the efficacy of the program. Furthermore, emphasizing the feedback of the learners help the mangers in developing better rearrangements for the future (1, 13). Green and Figa suggested that it is often necessary or desirable to use a variety of methods of evaluation simultaneously (37). In general, the goal of evaluation is to find out if the patient has learned the provided material. In addition, evaluation of patient education process helps the nurses to change educational methods or materials if the selected approach is not successful. The result of our study showed that evaluation was not considered appropriately in the studied hospitals, and the nurses did not use any forms or techniques to evaluate the efficiency and effectiveness of the program. The results of Turner and Kelo researches support our finding. They found that the using evaluation strategies and documenting the teaching outcomes were poor in the studied field (38).

One limitation of this study was collecting data just from the head nurses. The viewpoints of other managers also seem to be profoundly important in making improvements in the educational training program. The findings of this investigation highlight the need for additional research on the effectiveness and efficiency of patient teaching programs. Moreover, conducting more studies with a comprehensive sample from all healthcare providers is recommended for future studies.

Conclusion

The results of this study revealed that nurses should be conscious about the patient education process. Furthermore, it was found that clarifying the patient education process helps patients and nurses to make intelligent decisions. Moreover, developing a standardized framework and easily understood tool-kit of patient education program will improve the ability of nurses in delivering effective patient education in general and specialized hospitals; and establishing multidisciplinary patient education committee and determining patient education coordinator will facilitate this process.

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Conflict of interests

There are no conflicts of interest declared.

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