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Short Report

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Evaluation of Nursing Handoff Skill among Nurses Using Situation-background-assessment-recommendation Checklist in General Wards

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Abstract

Patient's clinical handoff which is a critical organizational and clinical process is considered one of the fundamental responsibilities of nurses. In this regard, lack of tools and resources to be applied for this purpose threatens the life of patients. The present study aimed to investigate the nursing handoff skill among nurses using situation-background-assessment-recommendation questionnaire. This observational research was carried out on 64 nurses in internal and surgical wards in selected hospitals affiliated to Shahid Beheshti University of Medical Sciences in Tehran, Iran in 2018. The research population included the content of reports related to nursing handoff of nurses working in the hospitals. The reliability and validity of the questionnaire were confirmed, and descriptive statistics were applied to evaluate the data. It is worthy to note that the majority of participants were female (68.8%). After the evaluation, patient information was reported in areas of current situation (90.0%), clinical background (10.0%), assessment of systems' status (57.5%), and recommendations (92.5%). Based on the results of the study, less attention was paid to mentioning clinical background and assessing patients' systems during nursing handoff, which necessitates the training courses on accurate reporting for nurses to ensure patient safety.

Keywords: General wards, Nursing handoff, SBAR tools

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Introduction

Effective communication, cooperation, and teamwork among members of a healthcare team are of utmost importance. In this regard, it is necessary to ensure that this communication facilitates the transfer of care information among healthcare providers and increases patient safety and care quality. Care is regarded as the core of nursing and is synonymous with nursing practice (1,2). Clinical care delivery as an intrinsic part of patient care is one of the common and old traditions among nurses entailing patient-related information, such as disease diagnosis, hemodynamic status and care plan (3). Effective information transfer in the health care system is a vital component of safe patient care and one of the top five priorities for improvements in patient safety worldwide. Therefore, information must be complete, precise, exclusive, relevant, and timely. On the other hand, some of the barriers to proper provision of information include excessive or insufficient and low-quality information, lack of a checklist and delay in nursing handoff (4). In recent years, poor nursing handoff has been a major source of patient injury, and 80% of serious health care errors have been associated with communication errors between caregivers during patient information transfer. Moreover, one-fifth of patients have experienced the side effects of this widespread problem (5). A 10-year assessment revealed that information errors occurring due to inaccurate communication account for two-thirds of all events during a shift, based on a report submitted by the Joint Commission Accreditation Healthcare Organization in 2005 (6).

Incomplete handoff increases the incidence of adverse events, mainly due to inadequate information transfer in important areas of patient care, such as primary diagnosis, current treatment, and medication prescriptions. In addition, ineffective handoff may lead to improper treatment, delay in diagnosis and treatment, side effects, and increased treatment costs (7). There exist different nursing handoff methods, including voice recording, face-to-face delivery, and application of special forms, in different hospitals. Most nurse-to-nurse communications are delayed due to irrelevant or repetitive information. Moreover, multiple distractions and time constraints make shift-to-shift report prone to errors (8, 9). According to Coeling, effective communication requires communication knowledge and skills since poor communication skills can negatively impact nursing performance (10).

In a research conducted by Kim et al. (2013), only 5.7% of nurses in South Korea had the necessary self-confidence to carry out nursing handoff properly, and just 12.1% of the subjects were assured of the accuracy of the information in this regard. Therefore, the transfer of accurate information is vital in nursing handoff (11). In another study performed on 84 nurses and patients in three internal, surgical, and oncology wards, nurses reported 50% less pain, compared to the level reported by patients (12). Results of another study carried out by Mohammad Ghasabi & Masoudi Alavi (2012) suggested that 21.4% of nursing reports had favorable quality, whereas 35.6% and 25% of the reports had moderate and poor quality, respectively (13). The results of the studies conducted in Iran on this subject have demonstrated an unsatisfactory quality of nursing reports and 5.6-17.9% high-quality reports. In addition, the content of that nursing documentation (e.g., rest and sleep status, bowel movements) was incomplete or undocumented (14).

National and international solutions presented to improve clinical handoff and reduce adverse effects of ineffective communication bring about major changes in the nursing handoff process. Introduction of a structured clinical handoff process accompanied by bedside handoff has resulted in boosted self-confidence of nursing staff, enhanced communication, and reduction of medical errors. The communication tool should include a flexible, modifiable framework that can be used along with other tools to ensure the relevance of shift content to the clinical context (5). The World Health organization Cooperation Center has proposed the standard approach of situation, background, assessment, and recommendation (SBAR) to transfer information about patients' safety solutions among staff members (1). The SBAR checklist was introduced by the treatment deputy in 2013 to carry out a nursing handoff. This checklist was first designed by the United States military and developed by Michael Leonard & Suzanne Graham to be applied in healthcare systems (15). The checklist was deployed to detect errors and neglects by the presentation of an expected pattern and revision of available information, patient background, and latest services, thereby improving communications among healthcare staff (16).

In a study on the relationship between information improvement with a decrease in complications, the level of complications (89.9 cases in 1000 patients) was reported to decrease to 39.96 in 1000 patients after the performance of SBAR (17). According to Baghaei et al. (2016), the mean score of communication dimension was 19 and 26 in control and intervention groups, respectively, which was suggestive of the improvement of care quality and patient satisfaction upon using SBAR checklist

(18). The majority of research on nursing handoff has focused on shift-to-shift physicians or nursing handoff in special wards and operating rooms, whereas the research conducted in general wards is very limited (5, 17, 19). However, high-quality care in all wards is patients' right and nurses' responsibility. In addition, communication skills can be learned and taught in order to enable nurses to adopt various communication methods of responding to a wide range of needs and conditions of different patients. On the other hand, given the clinical consequences of transferring inaccurate patient-related information, it is important to verify the efficiency of our current non-structured and traditional nursing handoff in transferring thorough information based on standards introduced by the ministry of health. With this background in mind, this study aimed to determine the nursing handoff skill among nurses in general wards using the SBAR tool.

Methods

This observational research was performed in internal and surgical wards of Shohadaye Tajrish, Emam Hossein, and Loghman hospitals affiliated to Shahid Beheshti University of Medical Sciences in Tehran, Iran, on January 2018. The research population was the content of reports of nursing handoff, and research sample was the content of reports of nursing handoff of nurses in internal and surgical wards. Sample size was estimated at 356 nursing handoffs using ratio estimation formula and based on a research by Spooner et al. (2016) (5) at the confidence level ($z=1.96$), type 1 error ($\alpha=0.05$) and percentage of standards observed by nurses ($P=0.6$) (a total number of 64 nurses were enrolled in the study and four handoffs were recorded for each nurse. Ultimately, 256 nursing handoffs were collected). Inclusion criteria entailed 1) the overall performance of the handoff process on patients' bedside, 2) continuation of handout process during the last 30 minutes of each shift, which included the nurses of the former and the next shifts. In the internal and surgical wards, division of labor was patient-based, meaning that each nurse cares for her own patients and carries out nursing handoff related to those patients. The SBAR checklist consists of four sections and 17 yes/no items, where yes is allocated one score and two is given zero scores. Content validity of the checklist was measured and confirmed by 10 professors in nursing and midwifery school, Iran University of Medical Sciences (20). On the other hand, we cited the validity presented by Inanloo et al. and spent no time estimating the validity ourselves. However, reliability of the tool was estimated using the method of simultaneous observation by two researchers in the nursing and midwifery school of Shahid Beheshti University of Medical Sciences. In this respect, the researcher and another observer who was knowledgeable enough about nursing handoff and SBAR checklist simultaneously assessed the performance of 10 nurses during handoff and recorded their results. The kappa coefficient was measured as 0.7-1 for all items. To collect data, the researcher recorded the voices of 64 nurses (each nurse=four handoffs) during the handoff process for 18 days. The clinical handoff of 26, 19, and19 nurses in the morning, evening, and night shifts were recorded, respectively due to a higher number of nurses in the morning shift, as compared to evening and night shifts.

At the end of the recording process, the content of reports was assessed using SBAR checklist. It is worthy to note that the risk of bias was decreased by random referral of the researcher to the hospitals on various days of the week. Another solution was the arbitrary enrolling of some of the nurses in a shift and random recording of nursing handoff of some of the nurses. Permission was obtained from the vice-chancellor for education and higher education manager and from the ethics committee with the code of R.SBMU.PHARMACY.REC.1397.182 before the commencement of the study. In addition, a written introduction letter was presented and the necessary coordination was made with hospital authorities. The participants were informed about research objectives and informed consent to use a voice recorder was obtained from them. Moreover, subjects were ensured of the confidentiality terms regarding their personal information. In the end, nurses were informed about the research findings if desired so. Demographic characteristics questionnaire was completed by subjects, and contents of nursing handoff reports were evaluated by SBAR checklist after recording the voice of nurses during the process. The data were analyzed in SPSS software(version 22) using descriptive statistics at various dimensions to present the percentage of observing standards by nurses. One of the major drawbacks of the current research was the self-control of nurses due to recording their voices, which was beyond the control of the researcher.

Results

The voice of 64 nurses was recorded during nursing handoff, leading to the recording of a total of 526

nursing handoff processes. The contents of reports during handoff in internal and surgical wards were assessed, and descriptive statistics were deployed to determine the percentage of observing standards by nurses. It is worthy to note that the majority of nurses were female (68.8%) (Table 1). The areas pointed out in the recorded nursing handoffs included current situation (90.0%), clinical background (10.0%), assessment of systems' status (57.5%), and recommendation (92.5%). In terms of the current situation, the most and least areas recorded by nurses were diagnosis (90.0%) and patient stability (7.5), respectively. In the area of clinical background, the most and least areas expressed were medication (10.0%) and surgery background (2.5%), respectively. On the other hand, presenting the systems' status (57.5%) and measures taken to eliminate the problems of systems (10.0%) were the most and least areas presented in the area of assessment of systems' status, respectively. In the recommendation area, running measures that required assessment (60.0%) and trackable measures for the next shift (92.5%) were reported (Table 2).

Table 1. Frequency distribution and percentage of demographic variables of the participants

Variable	Scale	Frequency (%)
Gender	Female	44 (68.8)
	Male	20 (31.3)
Level of education	BSc	55 (85.9)
	MSc	9 (14.1)
	PhD	0 (0)
Work experience	Below five years	35 (54.7)
	Above five years	29 (45.3)
History of attending educational classes on nursing handoff	Yes	17 (27.0)
	No	46 (73.0)
Type of shift	Morning	26 (40.6)
	Evening	19 (29.7)
	Night	19 (29.7)
Type of ward	Internal	32 (50.0)
	Surgical	32 (50.0)
Workload of ward	Below six patients	4 (6.3)
	Above six patients	60 (93.8)
Nursing hours per week	Below 50 hours	7 (10.9)
	50-60 hours	32 (50.0)
	More than 60 hours	25 (39.1)

Table 2. The score obtained from 100 Situation-Background-Assessment-Recommendation checklists by nurses in internal and surgical wards based on subcategories

Subcategory	100
Current patient situation	90
Patient name	87.5
Patient age	10
Attending physician	62.5
Disease diagnosis	90
Admission date	10
Current problems and symptoms of the patient	70
Interventions	70
Patient stability	7.5
Patient Concerns	37.5
Clinical background	10
Current background of the patient	7.5
Medication background	10
Patient surgery background	2.5
Important past events	7.5
Assessment of systems' status	57.5
Presentation of systems status	57.5
Necessary measures taken to fix the systems' problem	10
Recommendation	92.5
Actions that are in progress and need monitoring	60
Followed-up plans, measures, and specialized consultation for the next shifts	92.5

Implications for Practice

Evaluation of content transfer during nursing handoff in general wards revealed communication and safety weakness, as well as errors in nurses' performance in Iran, comparable to nurses in other countries. In general, nurses paid more attention to the routine aspects of patient care rather than meeting the standards. In addition, they overlooked the importance of expressing clinical background and assessment of systems' status of patients in two areas presented in SBAR checklist by the ministry of health. Therefore, information transfer is carried out incompletely. Given the fact that one of the management goals of nursing services is improving the quality of healthcare and patients' health enhancement, re-training courses could be held to improve communication skills in nurses which in turn increases nursing care and services. Since the current research was carried out in the internal and surgical wards of only three hospitals, it is suggested that future studies be performed in other wards to assess hospital interdepartmental performance. Moreover, it is recommended that other forms and methods be applied and compared to each other to design the best handoff method.

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Conflicts of Interest

None declared.

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