Original Article

The impact of using “ISBAR” standard checklist on nursing clinical handoff in coronary care units

Behrouz Pakcheshm1, Imane Bagheri2 Zohreh Kalani1,3*

1Department of Critical Care Nursing, School of Nursing and Midwifery, Shahid Sadoughi University of Medical Sciences, Yazd, Iran
2Department of Nursing, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran
3Department of Nursing, Nursing and Midwifery Care Research Center, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

ARTICLE INFO

Received 24 November 2019
Accepted 29 February 2020

Available online at: http://npt.tums.ac.ir

ABSTRACT

Background & Aim: Clinical handoff is the process of transmitting information, responsibility, and accountability among the health care team members. Lack of standard protocols may result in the loss of essential information and may lead to medical errors. The purpose of this study was to evaluate the impact of using a standard checklist on a clinical handoff in the coronary care unit.

Methods & Materials: This quasi-experimental study was performed based on pre- and post-test design at Afshar Hospital in Yazd. There was a total of 564 handoffs with the participation of 24 nurses in two coronary care units in 2017. Before the intervention, 282 clinical handoffs were recorded and implemented. Nurses were informed about the ISBAR standard checklist and were encouraged to use it for one week. Then, 282 clinical handoffs were again recorded and implemented. The frequency of providing information during clinical handoff was determined based on the ISBAR checklist and the data were analyzed using descriptive statistics and chi-square tests.

Results: Before the intervention, the frequency of providing information during clinical handoff was reported as follows: patient identity (86.9%), current position (75.1%), clinical history (52.8%), system status review (59.9%), and recommendations (92.9%). The results showed that the indexes significantly increased (P <0.001) after the intervention in all these five domains: patient identity (100%), current situation (94%), clinical history (80.1%), system status review (92.2%) and recommendations (100%).

Conclusion: Transition of information based on standard checklists with a specific framework can increase the frequency of information provided during clinical handoff. Therefore, it is recommended to train nurses and nursing students about standard handoff and related tools such as ISBAR in hospitals and universities.

Introduction

Clinical handoff is a process of transmitting information, responsibility, and accountability among healthcare team members and is an important part of the patient care process (1). Clinical handoff is regularly performed in the health sector, especially during shift deliveries, at least 2-3 times a day (2). It is a long-standing tradition among nurses and its proper and standard practice provides safe care (3) and includes information about patients including disease diagnosis, hemodynamic status as well as a care plan, medical changes, and any patient-related changes (4). The correct transition of information is a crucial component of maintaining safe patient care in the health care system (5), which is known as one of the five priorities for improving patients’ safety worldwide (6). Clinical handoff has provided improved nursing care including enhanced patient care prioritization (4), increased transmission of patients’ information to nurses and vice versa (1), increased documentation (4), reduced overtime, decreased misunderstandings (1), and increased productivity and group works (4). Herawati states that good clinical handoff helps identify errors and facilitate continuity of patient care (7).
However, lack of communication among nurses in handover process has been identified as an important factor in reduced safety and quality of services and patient dissatisfaction (8), accounting for 80% of serious health errors and 20% of adverse complications in patients (9). Incomplete handoff may increase the risk of adverse complications due to the lack of an exchange of information on essential components of patient care such as initial diagnosis, current treatment, and newly prescribed medication (10). Adverse complications and risks to patient safety can be the result of ineffective handoffs (1). On the other hand, given specific ward conditions, patient transfers and shift deliveries in intensive care units require constant monitoring of patients (11), because of impaired the communication in these patients, they can be more vulnerable (12). Imperfect communication during clinical handoff can lead to further complications in hospitals, and this is particularly more troublesome in intensive care units with highly vulnerable patients (13). The patients’ clinical handoff is done using verbal reports, face to face reports, written reports, mobile phones, voice recordings, electronic reports and printouts, and special forms. A structured communication tool would be beneficial to effectively communicate the patient information, reduce the adverse events, promote patient safety, improve the quality of care, increase health care provider satisfaction (14), increase confidence among caregivers (15), reduced medical and technical errors, and it can also help avoid losing critical information (16).

In recent decades, several measures have been used to improve communications during clinical handoff (9). SBAR and its derivatives (ISBAR, ISOBAR, and ISOBARR) are among the standard tools recommended for clinical handoff of (2) which are recommended by the WHO and the Joint Commission on Health Care for clinical handoff of patients (17). These tools include patient’s current situation (S), patients’ clinical background (B), system status assessment (A), and necessary recommendations (R). They are easy to use and to remember. This checklist helps improve communications by proposing an expected pattern of information to be delivered at handoff and by identifying errors and omissions (18). In Iran, however, the clinical handoff is usually done verbally using kardex and is not based on an integrated and structured protocol (5). Meanwhile, reviewing the literature suggests that there is a need to develop a comprehensive and practical standard protocol for shift handoff (19) and most nurses are in favor of structured clinical handoff (20). A review of literature outside Iran showed that using this checklist has led to the reduction of treatment errors (13, 16), reduction of incomplete information (16), provision of comprehensive and structured information (20), improved patient safety (13, 16), improved collaboration and communication among nurses (15, 20, 21), increased confidence (15) and health team dynamics (21), increase in the ability of nurses to manage clinical handoffs (7), increase in the frequency and quality of the information provided (22, 23), and reduction of the handoff time (22).

A few studies in Iran and the world have either merely described the status quo (24, 25) or have examined the role of educational intervention on clinical handoff among the medical staff (18, 26). Some studies also implemented alternative tools to evaluate the effects of educational interventions on nurses’ performance (5). Therefore, the purpose of this study was to determine the effect of education using a structured tool, ISBAR, during clinical handoff on the status of the provided information.

**Methods**

This study is a quasi-experimental study that was conducted according to pre- and post-intervention research design in Afshar Hospital of Yazd from October to December in 2017. Prior to the intervention, for one week, all the clinical handoffs in the morning, evening, and night shifts were recorded in keeping with the ISBAR.
standard checklist. One week after the intervention, the nurses were given a 90-minute instructional session on how to use the checklist and other necessary training. The training session was held in two separate days to allow all the nurses to participate. The nurses were provided with the ISBAR checklist to use during the transition of the patient to the following nursing team. ISBAR Checklist posters were also available at different wards to answer the nurses’ questions on how to use the ISBAR checklist. Then, all the clinical handoffs were recorded for another week.

Sampling time (one week) was estimated based on the determined sample size using the formula designed for two dependent variables (two-way test). A sample size of 282 clinical handoffs was recommended assuming at least 12% change after intervention, 95% level of confidence, and 80% test power. Considering the number of beds in the two CCU wards at the study setting (14 beds on aggregate) and the whole sampling method in which all clinical handoffs in the morning, evening, and night shifts were included, it was necessary to take into account one week for data collection.

Inclusion criteria suggest clinical handoffs that were completely delivered by the supervisor at the patient’s bedside and the handoff where the nurses have given their consent for the audio recordings. In case the patients would feel sick or the physicians could not finish their checkups during the handoffs, they would be excluded from this study.

The ISBAR checklist used by Spooner and Thompson (18, 27) includes 5 areas and 16 items. Checklists include 4 items in the domains of patient’s identity (I), patient’s current situation (S), and patient’s clinical background (B); but, include 2 items in the domains of assessment (A) and necessary recommendations (R). At first, the ISBAR checklist helps identify the patients and introduce them to the nurses and then clarify the current distressing situation and serious and urgent problems. After that, the checklist addresses the patient’s diagnosis and the situation at admission, the patient's medical background, the test response, and other clinical procedures. Finally, the priorities of the nurses while handoff and the specific treatment that should be provided, urgently, or as early as possible are addressed (28). For the present study, this checklist has been translated into Farsi and has been modified based on the opinions of 8 nursing faculty members of Yazd College of Nursing and Midwifery. The validity and reliability of the checklist were determined, consequently.

While conducting the study, demographic information questionnaires were completed after cooperating with the head nurses of each department and the supervisors of each shift and obtaining informed consent from the nurses to participate in the research and to allow recording their voice during the shift handoff. The recorded files were evaluated, simultaneously, by two people and were calculated based on the frequency distribution checklist of each domain and the related items. Generally, at least half of the dimensions of each criterion were specified to determine the information provided in each domain.

Prior to conducting the study, the proposal was approved by the Ethics Committee in Research at Shahid Sadoughi University of Medical Sciences of Yazd as IR.SSU.REC.1396.180. This study was also registered at the Iranian Clinical Trials Registration Center as IRT20181211041925N1.

The data were then analyzed using SPSS software version 16 and based on descriptive statistics (mean and standard deviation) and referential statistics (chi-square).

**Results**

24 nurses in two CCU wards participated in this study from the beginning to the end. Most of the nurses (70.8%) were female and the average age
of the nurses was 33.8±7.63. Almost half of the nurses belonged to the 30-39 years old group (45.8%). (Table 1)

On aggregate, 564 clinical handoffs were recorded before and after the intervention in both wards and the data were analyzed against the ISBAR checklist.

The frequency of information provided in clinical handoff in the domain of the patient’s identity (I) increased from 86.9% to 100%; according to Fisher’s accurate test, this is a significant difference (p<0.001). There were also significant differences in the three items of name, age, and date of admission, but there was no significant difference in the diagnosis item. (Table 2)

In the domain of the current situation (S), the information provided in handoffs increased from 75.1% to 94% (P<0.001). Moreover, in this domain, there was a significant increase in the three items of probable resuscitation, the patient’s stability, and current symptoms and problems (P <0.001). But there was an insignificant decrease in the item regarding

the implementation of interventions. (Table 2)

Pertaining to the domain of the patient’s clinical background (B), the provision of information increased from 52.8% to 80.1% (P<0.001). In addition, there was a significant increase in all the items including current disease background, medicine background, surgical background, and major previous events (P<0.001). (Table 2)

Providing information on system assessment (A) has also increased from 59.9% to 92.2% (P <0.001) and the results of the assessment of the systems and the actions taken to resolve the problems have also increased significantly (P <0.001) in the two items. (Table 2)

In the domain of recommendations (R), the information provided in handoff has also increased from 92.9% to 100% (P<0.001). There was a significant increase in the items regarding ongoing actions and the need for monitoring (P<0.001); yet, there was no significant increase observed in the items about plans and follow-up measures in the next shifts. (Table 2).

| Variable                  | N   | %   |
|---------------------------|-----|-----|
| **Sex**                  |     |     |
| Female                    | 17  | 70.8|
| Male                      | 7   | 29.2|
| **Age**                  |     |     |
| < 30                      | 7   | 29.2|
| 30 – 39                   | 11  | 45.8|
| ≥40                       | 6   | 25  |
| **Shift**                |     |     |
| Fixed                     | 3   | 12.5|
| Rotation                  | 21  | 87.5|
| **Educational degree**    |     |     |
| Graduated                 | 21  | 87.5|
| Master’s degree           | 3   | 12.5|
| **Work experience**       |     |     |
| < 10 years                | 10  | 41.7|
| 10 – 19 years             | 9   | 37.5|
| ≥ 20 years                | 5   | 20.8|

**Table 1. Demographic information of participant nurses**
Using “ISBAR” checklist on nursing handoff

Table 2. The frequency of provided information among the five domains in clinical handovers before and after the intervention

| Domains                | Items                              | Pre-intervention | Post-intervention | P-value |
|------------------------|------------------------------------|------------------|-------------------|---------|
|                        |                                    | N    | %     | N    | %    |         |
| **Patient identity**   | Patient name                        | 219  | 77.7  | 251  | 89   | <0.001* |
|                        | Patient age                         | 41   | 14.5  | 246  | 81.2 | <0.001* |
|                        | Diagnosis                           | 236  | 83.7  | 247  | 87.6 | 0.187*  |
|                        | Admission date                      | 158  | 56    | 252  | 89.4 | <0.001* |
|                        | General provision of information    | 254  | 86.9  | 282  | 100  | <0.001* |
| **Current situation**  | Current observations                | 199  | 70.6  | 246  | 87.2 | <0.001* |
|                        | Implemented interventions           | 240  | 85.1  | 223  | 79.1 | 0.062*  |
|                        | Patient stability                   | 105  | 37.2  | 217  | 77   | <0.001* |
|                        | Probable resuscitation              | 22   | 7.8   | 138  | 48.9 | <0.001* |
|                        | General provision of information    | 212  | 75.1  | 265  | 94   | <0.001* |
| **Clinical background**| Current disease background          | 117  | 41.5  | 240  | 85.1 | <0.001* |
|                        | Medicine background                 | 48   | 17    | 195  | 69.1 | <0.001* |
|                        | Surgical background                 | 16   | 7.5   | 85   | 30.1 | <0.001* |
|                        | Major previous events               | 56   | 19.9  | 136  | 48.2 | <0.001* |
|                        | General provision of information    | 149  | 52.8  | 226  | 80.1 | <0.001* |
| **System assessment**  | Assessment of systems               | 160  | 56.7  | 244  | 86.5 | <0.001* |
|                        | Implemented measures to obviate the problems | 139  | 49.3  | 237  | 84   | <0.001* |
|                        | General provision of information    | 169  | 59.9  | 260  | 92.2 | <0.001* |
| **Recommendations**    | Ongoing measures                    | 217  | 77    | 246  | 87.2 | <0.001* |
|                        | Preventable plans and measures      | 237  | 84    | 238  | 84.4 | 0.908* |
|                        | General provision of information    | 262  | 92.9  | 282  | 100  | <0.001* |

*Chi-Square  **Fishers’ exact test

Discussion

In this study, the information in clinical handoffs in 5 domains (patient identity, patient current situation, patient clinical background, system assessment, and recommendations) comprising of a total of 16 items was investigated against the ISBAR checklist.

In the domain of patient identity, the information provided in handoff has increased to 100% after the intervention and the admission date and the patient’s name were the most frequent items within this domain after the intervention. Addressing the patients by their name is one of the important factors in the patient-nurse relationship (29). Identifying the patient is considered as one of the indicators of patient safety and any errors in identifying the patient (wrong patient error) are crucial which may lead to consequences such as giving the wrong medicine to the patient, performing the wrong treatment, providing the wrong diagnosis and receiving inappropriate treatment for the patient (30). In this domain, there was a significant difference in the frequency of information provided in handoff after intervention in all the items except for the diagnosis of the disease. Given the frequency of over 80% in clinical diagnosis in clinical handoffs before and after the intervention, it seems that nurses have always highlighted stating the patient’s diagnosis.

In addition, Fahim Yeganeh et al. conducted a study on transmitting clinical information between the nurses in the emergency measures ward and the assistants in the emergency room among patients with trauma. They reported that the use of ISBAR has helped improve the transmission of clinical information in handoffs by medical staff (26). Accordingly, it seems that nurses pay very little attention to the patients’ age during clinical handoffs (14.5%). However, a significant increase was observed after the nurses were accustomed to the standard
checklists. Thomson et al. conducted a study entitled "Using the ISBAR Tool in Clinical Medical Handoff" and reported different results on this domain compared to the present study. The implementation of the ISBAR tool in clinical handoff by physicians had no significant effect on emphasizing the patient’s age and name and the medical diagnosis. Paying attention to the information regarding patient’s identity in clinical handoffs in advanced countries like Australia, as it can be concluded from Thomson et al.’s study, is considered as a routine even without the use of specific tools. Nevertheless, implementing ISBAR can generally enhance the information provided in clinical handoffs (18).

Pertinent to the domain of the present situation, there was a significant increase in the frequency of information provided after the intervention in all the items except for the “implemented interventions”. Nurses have always highlighted the frequency of information provided in “implemented interventions” and the respective score was high even before the intervention (85.1%). The sources of nursing principles and techniques have always emphasized that the nurse must obtain necessary information about the patients’ health status and their general and specific problems in order to develop an appropriate care plan (29). In this regard, the results of the present study are in line with the results of another study conducted by Fahim Yeganeh et al., indicating that using the ISBAR tool can increase the items provided in this domain (26). The results of the present study are also consistent with the results of a study by Acherkar et al., who conducted a prospective study entitled "Introducing SBAR to Clinical Nurses". Accordingly, improvement of clinical handoff after the introduction of this tool was observed in all the SBAR domains (24). However, Thomson et al. have reported different results showing that the use of the SBAR tool did not significantly improve the provision of information about the patient’s current problem (18).

There was also a significant increase in paying more attention to the patients’ clinical background in clinical handoffs after the intervention. The background of the current disease was the most frequent items before and after the intervention. The frequency of provided information significantly increased for all the items after the intervention. Therefore, it can be concluded that, prior to the intervention, the least attention was paid to the patients’ clinical background in the clinical handoff.

The findings showed a significant increase in the two domains of system assessment and recommendations, each containing two items, in clinical handoffs. Considering the nearly 40% increase in system assessment, it seems that the nurses have not given proper attention to systems assessment in this domain prior to the introduction of the standard content of clinical handoffs. It can also be concluded that nurses did not understand the importance and necessity of this domain before being familiar with the respective items. This is in line with the results of the study by Beyg Moradi et al., which showed that nurses paid the least attention to system assessment during a clinical handoff in general wards (31). Meanwhile, a high percentage of information provided in recommendations, even before the intervention, indicates that nurses have always highlighted this issue. This is in line with the study by Fahim Yeganeh et al (26) and the other by Acherkar et al (24), but it is inconsistent with the results of Thomson et al.’s study.

Overall, the results indicated a dramatic increase in the provided information among all the five domains of the checklists. This is consistent with the results of Sandus’ study on the impact of using this checklist on the frequency of provided information based on nurses’ and midwives’ self-assessment (25).

The present study is one of the pioneering studies to evaluate and introduce a standard tool for safe and systematic clinical handoff in order to prevent from providing essential information and exchanging unnecessary information to nurses so as to improve the
quality of clinical handoffs. This is considered as one of the strengths of the present study. One of the main executive problems with this study was the staff’s resistance to change the previous clinical handoff process. The probability of bias due to nurses’ awareness about the recording of their voice during clinical handoff is among the limitations of this study.

Another limitation of the present study is that the study was conducted in a single hospital; and therefore, the results may not be generalizable to other medical centers. In addition, the study design is also considered as another limitation. Due to the proximity of CCU wards in the target hospital and the possibility of interactions between the nurses, it was not possible to have a separate control group and a parallel design. Therefore, the researchers chose to implement pre- and post-intervention design for this study.

The results of this study showed that instruction on how to use the standard tools and its application in clinical handoffs in CCUs has significantly increased the frequency of provided information in five target domains (18 out of 21 items) of the standard checklist.

Using the ISBAR standard checklist is a practical way to improve nurses’ clinical performance. Nursing managers can use this approach to reinforce their staff to make positive changes in the nursing system. Raising awareness of nursing students about this checklist will also prepare them to apply a practical approach in the form of an integrated and organized system. However, it seems that further studies are needed to develop structured clinical handoff processes such as the ones examined in this study, in order to investigate its various aspects and to clarify the related barriers, incentives, and practical solutions.

Conflict of Interest

The authors declare that there are no conflicts of interest in the publication of this study.

Acknowledgments

The present study is part of a Master's Degree in Critical Care Nursing in the School of Nursing and Midwifery at Shahid Sadoughi University of Yazd, Iran. The study was registered as 5641 and was funded by the Research Department of the university. Therefore, we are grateful to the Vice-President of the Research Department and all the participants who devoted their time to this research.

References

1. Anderson J, Malone L, Shanahan K, Manning J. Nursing bedside clinical handover—an integrated review of issues and tools. Journal of Clinical Nursing. 2015;24(5-6):662-71.
2. Riesenberg LA, Leitzsch J, Little BW. Systematic review of handoff mnemonics literature. American Journal of Medical Quality. 2009;24(3):196-204.
3. Wakefield DS, Ragan R, Brandt J, Tregnago M. Making the transition to nursing bedside shift reports. The Joint Commission Journal on Quality and Patient Safety. 2012;38(6):243-AP1.
4. Chaboyer W, McMurray A, Johnson J, Hardy L, Wallis M, Chu FYS. Bedside handover: quality improvement strategy to “transform care at the bedside”. Journal of nursing care quality. 2009;24(2):136-42.
5. Etezadi T, Malekzadeh J, Mazlom SR, Tasseeri A. Nursing handover written guideline implementation: A way to improve safe performance of nurses in intensive care units. Evidence Based Care. 2012;2(2):7-18.
6. World Health Organization. Communication during patient hand-overs. Patient Safety Solutions. 2007;1(3):1-4.
7. Herawati VD, Nurmalia D, Hartiti T, Dwiantoro L. the effectiveness of coaching using SBAR (situation, background, assessment, recommendation) communication tool on nursing shift handovers. Belitung Nursing Journal. 2018;4(2):177-85.
8. Raeisi A, Rarani MA, Soltani F. Challenges of patient handover process in healthcare services: A systematic review. Journal of Education and Health Promotion. 2019;8:173.

9. Australian Commission on Safety and Quality in Health Care. External Evaluation of the National Clinical Handover Initiative Pilot Program Final Report ACShQC. 2011 sydney.

10. Matic J, Davidson PM, Salamonson Y. bringing patient safety to the forefront through structured computerisation during clinical handover. Journal of clinical nursing. 2011;20(1-2):184-9.

11. Li P, Stelfox HT, Ghali WA. A prospective observational study of physician handoff for intensive-care-unit-to-ward patient transfers. The American journal of medicine. 2011;124(9):860-7.

12. Vretare LL, Anderzén-Carlsson A. The critical care nurse’s perception of handover: A phenomenographic study. Intensive and Critical Care Nursing. 2020;7:102807.

13. Müller M, Jürgens J, Redaëlli M, Klingberg K, Hautz WE, Stock S. Impact of the communication and patient hand-off tool SBAR on patient safety: a systematic review. BMJ open. 2018;8(8):e022202.

14. Shahid S, Thomas S. Situation, Background, Assessment, Recommendation (SBAR) communication tool for handoff in health care—a narrative review. Safety in Health. 2018;4(1):7.

15. Uhm J-Y, Ko YJ, Kim S. Implementation of an SBAR communication program based on experiential learning theory in a pediatric nursing practicum: A quasi-experimental study. Nurse Education Today. 2019.

16. Barry M. Hand-off communication: Assuring the transfer of accurate patient information. American Nurse Today. 2014;9(1):30-1.

17. Joint Commission Center for Transforming Healthcare releases targeted solutions tool for hand-off communications. Joint Commission Perspectives. 2012;32(8): 1, 3.

18. Thompson JE, Collett LW, Langbart MJ, Purcell NJ, Boyd SM, Yuminaga Y, et al. Using the ISBAR handover tool in junior medical officer handover: a study in an Australian tertiary hospital. Postgraduate medical journal. 2011;87(1027):340-4.

19. Sarmita K, Raj M, Santosh A. Critical Care Nurses' Views on Handover in Chitwan, Nepal: Connect: The World of Critical Care Nursing. 2019;13:36-45.

20. Schmidt T, Kocher D, Mahendran P, Denecke K. Dynamic Pocket Card for Implementing ISBAR in Shift Handover Communication. Studies in health technology and informatics. 2019;267:224-9.

21. Superville JG. Standardizing Nurse-to-Nurse Patient Handoffs in a Correctional Healthcare Setting: A Quality Improvement Project to Improve End-of-Shift Nurse-to-Nurse Communication Using the SBAR I-5 Handoff Bundle: The University of North Carolina at Chapel Hill; 2017.

22. Coleman RL. Improving Nurse-to-nurse Handover Through Implementation of Standardized SBAR: Gardner-Webb University; 2018.

23. Pang WI. Promoting integrity of shift report by applying ISBAR principles among nursing students in clinical placement. InSHS Web of Conferences 2017; 37:01019. EDP Sciences.

24. Achrekar MS, Murthy V, Kanan S, SHetty R, Nair M, Khattry N. Introduction of situation, background, assessment, recommendation into nursing practice: A prospective study. Asia-Pacific journal of oncology nursing. 2016;3(1):45-50.

25. Sundus.baqer.dawood, Ali RM, Bahaaldeen EF. Self-Evaluation of Nurses and Midwives Practices Using SBAR (Situation, Background, Assessment, Recommendation) Communication Tool on Maternal Health Documentation. Iraqi National Journal of Nursing Specialties 2018;31(2):57-67.

26. Yegane SAF, Shahrani A, Hatamabadi HR, Hosseini-Zijoud S-M. Clinical information transfer between EMS staff and Emergency Medicine Assistants during handover of trauma patients. Prehospital and disaster medicine. 2017;32(5):541-7.
Using “ISBAR” checklist on nursing handoff

27. Spooner, A. J., Aitken, L. M., Corley, A., Fraser, J. F., & Chaboyer. Nursing team leader handover in the intensive care unit contains diverse and inconsistent content: An observational study. International journal of nursing studies, 2016, 61: 165-172.

28. Baghaei R, Khalkhali H, PourRashid S. The effect of using sbar model in nursing handoff on communication dimension of nursing care from the patients’ view. The J Urmia Nurs Midwifery Fac. 2016;14(6):562-70.

29. Berman A, Snyder SJ, Frandsen G. Kozier & Erbs Fundamentals of Nursing concept, process and practice, global edition, tenth edition. edition T, editor: Julie Levin Alexander; 2018.

30. Shali M, Joolaee S, Hooshmand A, Haghani H. Committed Nurse: This Patient is wrong. Medical Ethics Journal. 2016;10(34):11-30.

31. Beigmoradi S, Pourshirvani A, Pazokian M, Nasiri M. Review nurses’ skills in handover using SBAR tool in general ward. Evidence Based Care. 2019;9(3):63-8.