



Patient Safety and Care Continuity Through Standardized Handoff Protocols: A Scoping Review of The ISBAR Framework In Emergency Nursing Practice

¹-Amal Oudah Aljohani ,²-Haifa Ali Makwaa,³-Abdah Essa Mohamed Hardi ,⁴-Nouf Saad Ahmed Alqarani,⁵-Hadijah Qari Awaji ,⁶- Sheikhha Salim Fudhi Alhafdhi,⁷- Essam Essa Mansour Alajam,⁸-Bader Nafae Alrashidi,⁹-Khalid Abdulsamad Hafiz,¹⁰- Nouf Qasem Albulayhishi,¹¹-Ghuzayyil Mazyad Thaar Alsaluli,¹²-Wed Ali Alwan Fadhel,¹³-Ahmed Judaya Alanazi,¹⁴-Huda Daifallah Al Saadi,¹⁵-Yahya Hussain Hakami

¹ KSA, Ministry Of Health, Umluj General Hospital

² KSA, Ministry Of Health, Eradah Hospital For Mental Health

³ KSA, Ministry Of Health, Eradah Hospital For Mental Health

⁴ KSA, Ministry Of Health, King Fahad General Hospital In Jeddah

⁵ KSA, Ministry Of Health, Eradah Hospital And Mental Health

⁶ KSA, Ministry Of Health, Umluj General Hospital

⁷ KSA, Ministry Of Health, Vector Control Center In Al-Eidabi

⁸ KSA, Ministry Of Health, Hospital Khaybar General

⁹ KSA, Ministry Of Health, Hazardous Medical Waste Management

¹⁰ KSA, Ministry Of Health, King Salman Medical City Madinah Hospital

¹¹ KSA, Ministry Of Health, Aseer Health Cluster In Bisha Alnagee PHCC

¹² KSA, Ministry Of Health, Sabia General Hospital

¹³ KSA, Ministry Of Health, King Salman Medical City - Al Amal Hospital For Mental Health

¹⁴ KSA, Ministry Of Health, Tuberculosis Chest Disease Center

¹⁵ KSA, Ministry Of Health, Amal Hospital And Mental Health

Abstract

Background: Effective communication during patient handoffs is critical in nursing, particularly within emergency departments where the risk of clinical errors is heightened. Standardized handoff protocols, such as the ISBAR (Identification, Situation, Background, Assessment, Recommendation) framework, have been proposed to enhance continuity of care and patient safety.

Methods: This scoping review, conducted in accordance with Joanna Briggs Institute guidelines, aimed to evaluate the effectiveness of ISBAR in nursing handovers for acutely ill adult patients in emergency settings. A systematic search across multiple databases, including CINAHL and PubMed, was performed using keywords related to ISBAR, communication, and emergency departments. Inclusion criteria focused on studies published between 2013 and 2023 that addressed the benefits of ISBAR in nursing handoffs.

Results: The review identified nine relevant studies demonstrating that the implementation of ISBAR significantly improves communication among healthcare teams, enhances patient safety, and standardizes information transfer. Key findings highlighted the reduction of information loss, improved clarity in communication, and increased interdisciplinary collaboration, leading to better patient outcomes.

Conclusion: The use of ISBAR as a standardized handoff protocol in emergency departments is associated with numerous advantages that enhance the quality of care and patient safety. Its structured approach facilitates effective communication, thereby reducing the likelihood of errors during critical care

transitions. Continued research is needed to further explore its application and effectiveness across diverse clinical settings.

Keywords: Handoff Communication, ISBAR, Emergency Department, Patient Safety, Nursing Care Transition

Received: 13 October 2023 **Revised:** 27 November 2023 **Accepted:** 11 December 2023

1. Introduction

Care transition, particularly during inter- and intra-hospital transfers, has gained significance both nationally and globally [1]. During these instances, duties and information about patient care are conveyed among the participating professionals—a procedure referred to as “handover” or “handoff” [2]—to guarantee continuity of care and patient safety [1-3]. Numerous writers see handover processes in emergency rooms as high-risk scenarios concerning the incidence of clinical mistakes. In relation to patient safety, care transition times are deemed vulnerable events because their complexity heightens the potential of mistakes in information transfer. This happens inside an institution, for instance, after a patient's transfer to an alternative level of care or when shifts are altered [1-3]. Numerous writers assert that deficiencies in the communication process might lead to various mistakes, potentially endangering patient safety [4-7].

Patient safety has become as a significant global issue throughout the years. The significance has been emphasized by several worldwide scientific organizations. Research from the Joint Commission Center for Transforming Healthcare indicates that communication failures often lead to sentinel incidents [7]. Numerous healthcare organizations, including the World Health Organization (WHO), the Joint Commission, the Agency for Healthcare Research and Quality, and the Institute for Healthcare Improvement, acknowledge that communication among involved professionals is a critical element of safe care, particularly during the handover process when patient information is relayed from one nurse to another.

The handover process facilitates a reassuring transfer by including the comprehensive transmission of the patient's information and collaborative care planning involving the patient, family, and all relevant providers. This necessitates recognition of the patient's state and context, with the objective of enabling modifications in treatment [8].

In the setting of an emergency room, the handover procedure is characterized as intricate and erratic owing to patients' instability and high turnover rate. These factors, in isolation, increase the likelihood of negative occurrences. Moreover, such settings need rigorous patient monitoring, swift decision-making, and the collaboration of several healthcare experts [2,7]. The emphasis is on the patient's therapy while striving for a rapid, efficient, and technically intricate response. Consequently, such environments seldom provide suitable circumstances for accommodating patients, honoring their privacy and uniqueness, facilitating therapeutic contacts, or disseminating timely and sufficient information. These factors must be considered to provide humane care that is both safe and reassuring for hospitalized patients and their families [9]. In light of the aforementioned complexity, comfort arises as a need. Therefore, in the care of critically sick patients, nurses should see comfort as both a motive and the objective of deliberate actions [10].

It is crucial to highlight that, within a framework of holistic, patient-centered care, ISBAR as a nursing handover technique in emergency departments actualizes the caregiving process and enhances continuity of care via deliberate comfort, which is very significant. In emergency situations, treatment prioritizes the critically sick patient facing particular health conditions and hospitalization scenarios marked by uncertainty and fragility. The person is situated in a state of reliance resulting from a deficiency or loss of autonomy across several dimensions (physical, psychological, or intellectual), necessitating assistance, which transforms into a need. Frailty and fragility, inherent to the human nature, are exacerbated in instances of severe illness and hospitalization due to patients' restricted options and capacities [11]. The personalization and humanization of care stem from nurses' attitudes in their professional practices. In a dynamic context, they endeavor to address the patient's requirements, guaranteeing sufficient care delivery to alleviate suffering while also averting complications, pain, and deterioration. Consequently, the objective

of nurses is to foster conditions of comfort [11]. In these situations, good communication using standardized tools is essential for emergency teams, since it fosters a safety culture and facilitates smooth care transitions [12].

Regarding care transfer, several relevant strategies exist. National and international regulatory bodies, together with health care quality committees, advocate for the use of the ISBAR tool (I—Identification; S—Situation; B—Background; A—Assessment; R—Recommendation). They see it as the most suitable, organized, and standardized tool for care transfer periods. The ISBAR technique may be used extensively in both emergency departments and hospital wards, as well as in pre-hospital services [7,12]. Studies indicate that its use enhances multidisciplinary collaboration among healthcare practitioners, hence improving patient safety and comfort [8,13]. From a professional perspective, ISBAR enhances communication and discussion, enabling the formulation of collaborative care plans that encompass the selected strategies and procedures, thereby augmenting patient satisfaction and the efficacy of decision-making related to the care plan. Simultaneously, ISBAR facilitates the resolution of disagreements within the interdisciplinary team [9,12]. Consequently, it has been used in several healthcare systems around [3].

Given this reality, we opted to perform a scoping review following the guidelines established by the Joanna Briggs Institute (JBI) [14] to delineate the current scientific understanding of the advantages of employing the ISBAR tool in the nursing care handover of acutely ill adult patients within an emergency department setting.

2. Methodology

This research is a scoping review conducted using the methods prescribed by the JBI [14-17]. Utilizing the PCC system—where “Population” refers to acutely ill adult patients, “Concept” pertains to the advantages of implementing the ISBAR methodology for patient care handover, and “Context” denotes emergency departments. The search approach was executed in three phases between August and September 2023. The first phase focused on CINAHL and PubMed to locate publications relevant to the topic, using the keywords: “ISBAR,” “Transition,” “Communication,” “Emergency department,” and “Handover.” Understanding the advantages of the ISBAR technique in the transfer of nursing care within the Emergency Department environment is deemed essential. The titles, abstracts, and indexing keywords pertaining to the papers deemed pertinent to this study were examined. The bibliographic search was conducted using the EBSCOhost—Research Databases interface in 2023. We picked the following electronic databases: CINAHL Complete, MEDLINE Complete, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews, and Cochrane Methodology Register.

3. Analysis

Analysis of the data revealed that research on the advantages of the ISBAR technique in nurse care handovers inside the emergency department is temporally dispersed. Moreover, the included works mostly have a quantitative character. The investigated populations mostly consist of healthcare workers, including nurses and physicians. This evaluation was limited to articles pertaining only to nurses.

Scientific research indicates that the handover procedure in emergency care settings has gained significant importance. In this context, patient transfers are globally acknowledged as a risk factor for patient safety. The care transfer processes executed in these locations are markedly inconsistent and conducted under precarious situations. The existing research contends that they need to be organized using standardized instruments, namely the ISBAR, to mitigate mistakes and decrease the incidence of adverse events [2,18-21].

The advantages of ISBAR in nursing care handover inside the emergency department, as highlighted in the research, are to patient and professional safety; continuity, and this technique enhances technical praxis in this domain. Regarding the continuity and quality of care, advantages include time savings and care standardization [2], clear and concise information transmission [2], potential loss of patient information [7], enhancement of critical thinking [3,7,22-25], and improvements in the quality and effectiveness of care transitions [21]. This practice enhances comfort for both patients and professionals by promoting

execution, professional accountability, and fostering trust and teamwork among practitioners. These areas promote the development of praxis concerning technical, human, relational, and ethical competencies, enabling choices to be made in alignment with the circumstances.

Nonetheless, there are advantages associated with the various dimensions that interconnect and intersect, imparting a transversal nature to the benefits of ISBAR, specifically effective communication, the quality-of-care transitions among different teams, and the standardization of transmitted information [2,3,7,19,24]. It is often categorized as accessible, facilitating a clear, brief, and straightforward communication process while also mitigating substantial information loss. Moreover, the use of ISBAR during handover processes seems to enhance the participation of the interdisciplinary team and the dependability of communication.

The intricacy of the handover process in the emergency department necessitates a structured methodology, as the absence of standardization may result in significant variability in transmitted information, deficiencies in the reassignment of professional responsibilities, delays in medical diagnosis, the emergence of adverse events, and/or inappropriate treatment. All these adverse outcomes arise from poor communication among the concerned experts [22]. Furthermore, communication issues might engender a deficiency of trust between the care receiver and the caregiver, often precipitating conflictual circumstances. This leads to inefficiencies and fragmentation within the procedures involving the multidisciplinary team, compromising patient safety, quality, and comfort [2,19-22].

In end-of-life care scenarios that evoke worry, discomfort, and anguish, the ISBAR technique organizes information to enhance continuity and ensure the comfort and well-being of the patient and family. The handover process relies on a humanizing interaction, whereby the nurse's attentiveness, sensitivity, availability, and care are conveyed via communication skills enhanced by ISBAR. This should occur at the patient's bedside to facilitate their integration of the care plan and empower them with current clinical information from the nurse [10]. ISBAR, owing to its flexibility, simplicity, and applicability across several clinical domains [2,19], enhances nurses' situational awareness, hence fostering critical thinking and decision-making skills [3,7].

The use of standardized communication tools for the handover process is often favorably regarded by experts within multidisciplinary teams, particularly in emergency departments. The efficacy of the ISBAR approach is a consistent and universal conclusion throughout the reviewed literature [2,7,19,26]. One of the research projects indicates a 35.7% acceptance of ISBAR implementation by the nursing staff in the emergency department [2]. Moreover, some of the research featured assert that using the ISBAR tool throughout the handover process enhances the compliance of the whole multidisciplinary team regarding the reassignment of professional tasks [2,7,19]. This finally results in enhancements in quality, safety, and comfort metrics, which advantage the patient [19].

All the material reviewed confirms that communicating via ISBAR is the most widely accepted approach for conveying information in an emergency department setting. Nevertheless, two of the studies indicated that the tool's usefulness and efficiency were affected by professional training. Emergency department teams are often aware of ISBAR and other standardized tools, however they seldom use these resources independently. Nonetheless, when their training emphasizes the need of standardized communication, they readily see the use of such technologies [3,19].

The results identified four key aspects that underscore the efficacy of ISBAR as a tool for interprofessional and standardized communication: the establishment of a common language in interdisciplinary exchanges, thereby removing language barriers; the efficient organization of conveyed information; the enhancement of collaborative team communication, including conflict resolution and shared decision-making; and, lastly, its versatility, as it can be utilized in various contexts, such as face-to-face discussions, group presentations, email correspondence, and the preparation of approval documents.

Research indicates that ISBAR is a standardized, valid, and effective communication tool, acknowledged by patients and professionals alike, and endorsed by the Joint Commission, the Agency for Healthcare Research and Quality, the Institute for Healthcare Improvement, and the WHO [6]. This scoping review examined nine

papers that facilitated the resolution of the research topic. Consequently, we may assert that the use of ISBAR for care transitions in emergency services is advantageous, as shown by the many benefits described in the existing literature.

The primary limitations of this research arise from the lack of relevant literature about the implementation of ISBAR in the handover of nurse care inside the Emergency Department. The literature on this topic mostly emphasizes hospital inpatient environments. The predominance of publications with a level of evidence classified as 2d and 4b may represent a restriction in the results. The dearth of nursing literature on this topic underscores the need for more study.

4. Conclusions

This scoping assessment enabled us to ascertain the advantages of using the ISBAR technique as a standardized instrument for the transfer of nursing care in emergency services. The advantages are to the safety of patients and professionals, the continuity and quality of treatment, and the comfort of both patients and professionals. The ISBAR is regarded as a viable method for nursing care handover, particularly in emergency services, owing to its structural simplicity, universal terminology, and adaptability to various clinical contexts.

Scientific data indicates that its use advantages multidisciplinary teams and the individuals' receiving treatment, significantly enhancing safety during clinical transitions. The implementation of ISBAR enhances recognition of the significance of adopting systematic and effective communication, with the need for organized information about patient care, allowing a personalized, secure, and reassuring response that yields health benefits. The need for more study on this subject stem from the significance of evidence-based practice. The topic under investigation should persist in being examined and deliberated by the scientific community.

References

1. Santos, G.; Campos, J. Silva, R. Handoff communication in intensive care: Relationship with patient safety. *Anna Nery School* 2018, 22, 1–12.
2. Bakona, S.; Millichampb, T. Optimising the handoff process from emergency to ward A mixed methods study. *Australas. Emerg. Nurs. J.* 2017, 20, 147–152.
3. da Cruz Silva Patacas de Castro, C.M.; Marques, M.D.C.M.P.; de Oliveira Tavares de Vaz, C.R. Communication in the transition of nursing care in an emergency service in Portugal. *Cogitare Enferm.* 2022, 27, e81767.
4. Bergs, J.; Lambrechts, F.; Mulleneers, I.; Lenaerts, K.; Hauquier, C.; Proesmans, G.; Creemers, S.; Vandijck, D. A personalised intervention to improve the quality of in-hospital nursing transitions. *Int. Emerg. Nurs.* 2018, 36, 7–15.
5. Redley, B.; Botti, M.; Wood, B.; Bucknall, T. Interprofessional communication supporting clinical handover in emergency departments: An observational study. *Australas. Emerg. Care* 2017, 20, 122–130.
6. Clairol, M.G.; Ordozgoiti, A.V.; Lugo, D.O.; Maspoch, E.C.; Font, M.M.; Oliva, M.E. Evaluation of information transfer (Hand Off) in emergency nursing teams. *Rev. Cuba. Enferm.* 2017, 33, e1539.
7. Campbell, D.; Dontje, K. Implementation of Bedside Handoff in the Emergency Department: A Practice Improvement Project. *J. Emerg. Nurs.* 2018, 45, 149–154.
8. Smith, C.; Buzalko, R.; Anderson, N.; Michalski, J.; Warchol, J.; Ducey, S.; Branecki, C. Evaluation of a new handoff communication strategy for patients admitted to the emergency department. *West. J. Emerg. Med.* 2018, 19, 372–379.
9. Faria, J.; Sousa, P.; Gomes, M. Patient comfort in intensive care—Integrative review. *Enferm. Glob.* 2018, 50, 490–502.
10. Lima, R.; Sousa, P.; Marques, R. O conforto em contexto de urgência: A experiência da família da pessoa em situação crítica. *Rev. Enferm. Ref. Res.* 2022, 6, e21118.
11. Sousa, P.P. *O Conforto na Pessoa Idosa*, 2nd ed.; Universidade Católica Editora: Lisbon, Portugal, 2020; ISBN 9789725407127.

12. Bakon, S.; Wirihana, L.; Christensen, M.; Craft, J. An integrative review of graduate transition programmes: Development considerations for nursing management. *Nurse Educ. Pract.* 2018, 28, 80–85.
13. Stewart, K. SBAR, Communication and Patient Safety: An Integrative Review of the Literature. Master's Thesis, School of Nursing, The University of Tennessee at Chattanooga, Chattanooga, TN, USA, 2016; pp. 1–45.
14. Joanna Briggs Institute. Joanna Briggs Institute Reviewer's Manual: 2015 Edition/Supplement; The Joanna Briggs Institute: Adelaide, Australia, 2015.
15. Joanna Briggs Institute. Joanna Briggs Institute Levels of Evidence. 2014.
16. Joanna Briggs Institute. Joanna Briggs Institute. New JBI Levels of Evidence. 2013; 5p.
17. The Joanna Briggs Institute. Critical Appraisal Tools. 2017.
18. Marmor, G.; Li, M. Improving emergency department clinical medical handover: Barriers at the bedside. *Emerg. Med. Australas.* 2017, 29, 297–302.
19. Ehlers, P.; Seidel, M.; Schacher, S.; Pin, M.; Fimmers, R.; Kogej, M.; Gräff, I. Prospective Multisite Observational Study of Handover in the Emergency Department: Theory versus practice. *West J. Emerg. Med.* 2021, 22, 401–409.
20. Yegane, S.; Shahrami, A.; Hatamabadi, R.; Hosseini-Zijoud, M. Transfer of clinical information between EMS staff and emergency medical assistants during trauma patient transfer. *Prehospital Disaster Med.* 2017, 32, 541–547.
21. Di Delupis, F.D.; Mancini, N.; di Nota, T.; Pisanelli, P. Pre-hospital/emergency department handover in Italy. *Intern. Emerg. Med.* 2014, 10, 63–72.
22. De Meester, K.; Verspuy, M.; Monsieurs, K.; Van Bogaert, P. SBAR improves nurse–physician communication and reduces unexpected death: A pre and post intervention study. *Resuscitation* 2013, 84, 1192–1196.
23. Dahlquist, R.T.; Reyner, K.; Robinson, R.D.; Farzad, A.; Laureano-Phillips, J.; Garrett, J.S.; Young, J.M.; Zenarosa, N.R.; Wang, H. Standardized Reporting System Use During Handoffs Reduces Patient Length of Stay in the Emergency Department. *J. Clin. Med. Res.* 2018, 10, 445–451.
24. Ocak, U.; Avsarogullari, L. Expectations and needs of relatives of critically ill patients in Umut emergency department. *Hong Kong J. Emerg. Med.* 2019, 26, 328–335.
25. Valente, C.; Fonseca, G.; Freitas, K.; Mussi, F. Family comfort to a relative hospitalised in the intensive care unit. *Rev. Baiana Enferm.* 2017, 31, e17597.
26. Sousa, P.; Marques, R. Comfort and comforting. In *Client-Centred Care: From Assessment to Nursing Intervention*; Henriques, E., Ed.; Sabooks: Online, 2021; pp. 727–740.

سلامة المرضى واستمرارية الرعاية من خلال بروتوكولات التسليم الموحدة: مراجعة شاملة لإطار عمل ISBAR في ممارسة التمريض في الطوارئ الملخص

الخلفية: تُعدّ عملية التواصل الفعال أثناء تسليم المرضى أمراً بالغ الأهمية في التمريض، خاصةً في أقسام الطوارئ حيث يزداد خطر الأخطاء السريرية. وقد تم اقتراح بروتوكولات التسليم الموحدة، مثل إطار عمل ISBAR (التعريف، الحالة، الخلفية، التقييم، التوصية)، لتعزيز استمرارية الرعاية وسلامة المرضى.

الطرق: هدفت هذه المراجعة الشاملة، التي أجريت وفقاً لإرشادات معهد جونا بريدجز، إلى تقييم فعالية ISBAR في تسليم المرضى البالغين المصابين بأمراض حادة في بيئات الطوارئ. تم إجراء بحث منهجي عبر قواعد بيانات متعددة، بما في ذلك PubMed وCINAHL، باستخدام كلمات مفتاحية تتعلق ب-ISBAR، والتواصل، وأقسام الطوارئ. ركزت معايير الإدراج على الدراسات المنشورة بين عامي 2013 و2023 والتي تناولت فوائد ISBAR في عمليات تسليم التمريض.

النتائج: حددت المراجعة تسع دراسات ذات صلة أظهرت أن تطبيق ISBAR يُحسن بشكل كبير التواصل بين فرق الرعاية الصحية، ويعزز سلامة المرضى، ويوحد عملية نقل المعلومات. أشارت النتائج الرئيسية إلى تقليل فقدان المعلومات، وتحسين وضوح التواصل، وزيادة التعاون بين التخصصات، مما يؤدي إلى تحسين نتائج المرضى.

الاستنتاج: يرتبط استخدام ISBAR ببروتوكول تسليم موحد في أقسام الطوارئ بالعديد من الفوائد التي تعزز جودة الرعاية وسلامة المرضى. يُسهّل نهجه المنظم عملية التواصل الفعال، مما يقلل من احتمالية الأخطاء أثناء انتقالات الرعاية الحرجة. هناك حاجة إلى المزيد من الأبحاث لاستكشاف تطبيقه وفعالته في مختلف البيئات السريرية.

الكلمات المفتاحية: التواصل التسليم، ISBAR، قسم الطوارئ، سلامة المرضى، انتقالات الرعاية التمريضية.