ORIGINAL ARTICLE

Improving the quality of communication during handover in a Paediatric Emergency Department: a qualitative pilot study

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Keywords

Paediatric Emergency Department • Handover • Communication failures • Patient safety • Qualitative study

Summary

Introduction. *There is a dearth of literature that specifically addresses the handover reporting process among healthcare staff working in children's Emergency Department (ED). Widespread gaps in service provision, such as gaps in communication in handover reports to ambulance staff have been noted in the general literature on the topic. There are also improvements observed in handover when a structured mnemonic was encouraged. Structured reports improve communication, safety and may reduce medication errors. Thus, the improvement of handover reporting in children's ED has important implications for children's healthcare practice. However, little is known about communication processes during handover reports in Italian children's ED or its consequences for errors or risks.*

Methods. *A qualitative description methodology was used. Semi-structured interviews were used to collect data from five children's ED nurses. Thematic content analysis was used to identify common themes.*

Results. *Emergent themes were: interpersonal influences on handover; structural issues; and local contextual factors.*

Conclusions. *The findings of this pilot study prompted the need for a standardized tool that improves communication during handover. As such, standardizing the communication process during handover could be effectively resolved by using a mnemonic tool adapted for handover in a paediatric emergency department.*

Introduction

Communication with children and their families is the cornerstone of family centred care [1]. Indeed, communication is an important skill in a healthcare process that ensures effectiveness, efficiency, patient satisfaction, and patient safety, in a system that strives for quality [1, 2]. Although communication is often considered primarily in the context of nurse/patient relationships, communication encompasses a wide range of skills and tasks that contribute to good patient care [3]. This includes patient assessment; education and information giving; passing information to other healthcare colleagues and verbal reporting after shifts [3]. So, it is much more than creating positive relationships with people or information passing, rather it is an all encompassing contributory factor to safety in healthcare [2, 4]. Indeed, when patient information is not clear or omitted it is "a major cause of patient dissatisfaction, and… [also] one of the largest causes of untoward incidents in the health service" [5]. A recent systematic review confirms that good communication [6] is fundamental to patient safety in ED, and one legal case study demonstrates that when communication between healthcare professionals' is not effective the consequences on patient safety and outcome can be very severe [7]. Medication errors, one of the most frequently occurring ED communication errors in the literature, are more likely to occur in this context [2].

The children's emergency department (ED) presents an additional challenge [2]. It is a high paced area where children and their families are often distressed and/or critically ill presenting with complex healthcare needs. In a busy ED, nurses will interact often with 100's of patients and families each week [2]. In addition to the regular ED healthcare team, their responsibilities pervade across many hospital areas that they deal with and also across GP and ambulance services. Clear reporting (both verbal and written) is a priority in these circumstances [8]. Importantly the "risk of making mistakes [in the ED context] is high" [2].

The ED experience can be divided into distinct phases. This includes the child's arrival to ED, assessment, transfer, and discharge [2]. Keeping track of the child's progress, while having a variety of in-hospital tests for example requires effective traceability communication [2]. A recent prospective observational examination of more than 400 communication events in one ED in Italy was revealing [2]. There were more than 22 communication failure processes. The most recurrent of these was during handover reports [2]. The issue of communication failures within ED handover reports was also recently highlighted in an American observational study (1,163 patient handovers during 130 ED shifts), which revealed significant vital sign communication errors, namely "the failure to communicate an episode of medical-record-documented hypotension or hypoxia" [9]. In this case,

errors were not related to ED overcrowding or interruptions.

One further mixed method study arising from some of the authors' work in an Italian context explored information passing by nurses during ED handover report [10]. While most of the nurses surveyed (74%, n = 54) believed that they received comprehensive handover, for many this was limited to medical diagnosis only. This is similar to Moharari [11] findings. Moharari and Costa (both found that within handover reports information that was often limited to medical diagnosis or reason for hospitalisation (without past history or socio-economic/vulnerability circumstance information) resulted in communication deficits and failures [10]. Interestingly, technology, while usually perceived as facilitating better communication, often hindered communication in these circumstances.

Certainly, handover as a key ED facet of communication has caused issues for nurses in other countries, and the literature is replete with discussions concerning this process and how to improve it. ED handover receives less attention and Bruce and Suserud's [12] interviews with nurses confirm Costa's findings that "ideal handover" (from the ambulance nurse to the ED nurse in this case) needs to be comprehensive and holistic. Conversely the "non-ideal handover" arose from not being able to form this holistic picture, due in part to patients' "ambiguous mental health", the difficulty with specific diagnosis of symptoms or difficult social circumstances [12]. So, barriers to communication arise in the nurse, patient and the environment [13] and are not always necessarily nurse mediated. Less research attention has been concentrated on the communication processes in children's ED.

Internationally, a reduction in overall ED failures, errors, and increased mortality rates has been reported with the implementation of medical emergency teams (MET), which comprise nurses and doctors working together to provide early and co-ordinated responses in critical situations [14]. While neither the ED errors reported within the literature nor the MET specifically address communication as an issue, certainly addressing "inadequacies in hospital organizational systems" was at the heart of the initiative [14]. Moreover, this closer working team by default is potentially more likely to avoid lapses and errors related to patient transfer information for example (as they are all working together). Indeed, one recent Swedish study indicated that "teamwork failure" contributed significantly to ED errors [15]. As communication is a vital feature of any team, it likely contributes to these events.

The MET is specifically targeted at the increasingly sick population presenting to ED, which are often complex cases with multiple co-morbidity [14]. Certainly, organizational structures, including physical space and the way that work is organized can have either a positive or detrimental effect on communication within the health care team [16] particularly in those at-risk communication features previously identified such as tracking patients, patient handover, and patient transfer [2].

Communication during patient transfer appears to be a key area where improvement is needed. The use of standardized patient handover and transfer forms can assist with this [10, 17] These need to focus on both core and holistic elements of care such as mental status, devices and treatments, risk alerts, diet, and skin and wound care [17]. Certainly, effective record keeping and documentation is crucial to good communication in ED [18]. However, even in the context of advancing technology, verbal reports are viewed as an important feature of effective ED transfer [19, 12], particularly to groups outside the hospital such as ambulance services. One priority for improvement in these circumstances is training and education for staff [8, 19]. Indeed, on-going communication training for all staff in ED is recommended particularly in "closed-loop" systems that allow for effective closing of the gaps in the complex ED system [6].

While there is abundant research concerning nurse-nurse communications or with other healthcare workers, there is little information available specifically about nurse handover in the children's' ED setting. Additionally, in the Italian context communication systems in this regard may be underdeveloped, a fact which is mirrored in other countries internationally [20]. Structuring the handover process, through the use of mnemonic tools that prompt comprehensive reporting (e.g. the SBAR tool) is widely recommended for ED [20, 21]. However, recent reviews [21] reveal that even within this context there are uncertainties about reporting in some areas (e.g. responsibility and confidentiality) and a lack of consensus regarding the best tool to use. There is a dearth of literature that specifically addresses handover in children's ED. A search of CINAHL databases using the terms 'handover' [or] 'handoff' and 'children', 'paediatric' and 'emergency department' yielded only six citations. Only four of these papers related directly to children in ED and all revealed widespread gaps in service provision, such as gaps in communication handover with ambulance staff [22] but also improvements in handover when increasing structure was applied [23, 24]. Hsiao and Shiftman (2009) [25] revealed omissions leading to errors in their analysis of 353 visits to the children's ED by children with asthma. In this study, handover to community teams following discharge was found to be substandard, however this study related to written discharge information rather than directly to the verbal staff-to-staff handovers, which are the focus of this review. Recently Gopwani [24] noted improvements in handover and reduction in errors within children's ED with the introduction of mnemonic based reporting systems (SOUND). Similarly, Mullan implementation of another structured handover system (with mnemonic prompt) revealed a high number of reported of events that threatened the child's safety but had been picked up through the use of the structured reporting system.

Little is known however about communication in handover processes in children's ED in Italy. The conceptual

background of this study is based on the fact that the best care process is the one that facilitates communication, collaboration, and integration, not just among health professionals, but also between health professionals and patients and their families (Family Centred Care) [26]. Each child should be cared for in a way that leads to the best possible outcome, with the least possible risk, and with maximum family satisfaction. The purpose of this pilot study was therefore to investigate ED nurses' perceptions of handover in a Children's ED as a basis for further research on how to develop future practice in this area.

Methods

Ethical approval

Ethical approval was obtained from the Local Research Ethics Committee.

Data collection

Data were collected using semi-structured interviews that asked participants two questions: "Could you tell me how handover took place today?" and "Could you talk to me about a handover that you consider complete?". Interviews were integrally audio-recorded and then verbatim transcribed. Thematic content analysis was conducted to identify common themes. Five female paediatric nurses took part, with an average working experience of 17.5 years. Participants replied orally and had all the time they needed to answer. Further questions were asked in relation to what the interviewees said.

Data analysis

The data collected from the interviews were analysed after listening carefully to the audiotapes several times. Consistency between the audio-recording and the verbatim transcription was confirmed by two researchers, who separately analysed them. Transcriptions of each interview were repeatedly read, and emergent themes were identified using content analysis [27].

Results

In this context, the health professionals working in the department did not identify any issues with the handovers [10]. However, the themes that emerged from the interviews were: 1) interpersonal influences on handover; 2) structural issues; and 3) local contextual factors.

1) Interpersonal aspects of handover

This highlights how communication during handover can be influenced by personal aspects, such as emotions, and mood. Another important aspect of this theme was the lack of a spirit of collaboration among team members.

Personal aspects

Emotional aspects, the type of relationship with patients and their families was perceived to influence the health professional's mood so much that handover can be positively or negatively impacted by communication. For this reason, personality can influence the type of communication and relationships among colleagues:

"*… you can make comparisons… if people let you… it depends on your character and confidence*" (Paediatric Nurse 5).

"*… other than providing information about the patients' treatments, we also have to provide information about the parents' behaviours… and the feelings that they expressed… in a rather exuberant way…*" (Paediatric Nurse 1).

"*… during handover some colleagues show their uneasiness due to the stressfulness of their workload… to organizational problems… and shortage of nurses… but also and especially when parents show their fear in a very assertive and sometimes imposing manner*" (Paediatric Nurse 1).

Subjectivity prevails over method, no matter how long a nurse takes to complete handover, you should always focus on the key points. Atmosphere, one's own experience, and emotiveness influence work and therefore on the health professionals' mood. As a consequence, experience in the ward (i.e. working stress, relations with patients and their families, and excessive workloads) appeared to impact the effectiveness of handover.

Collaboration among professionals

Poor collaboration between nurses and physicians was revealed by participants and entailed divergent health plans among the two professions. From our data emerged also a lack of teamwork and therefore of shared decisions, changes made but not communicated, which were aspects that created obstacles at work:

"*… we are quite far from considering our collaboration as teamwork … physicians make decisions and these are immediately changed… without informing us and sometimes when we realize it is late… and this impacts on the how, when and what type of treatments we as nurses should administer…*" (Paediatric Nurse 1).

"*… the best handovers are in the afternoon… because physicians have mostly already decided what sort of treatment patients need and nurses know what to do in the next few days…*" (Paediatric Nurse 2).

"*… during handovers sometimes a physician comes in and takes away a clinical record from our hands…*" (Paediatric Nurse 3).

2) Structural issues

This theme highlighted how the quality of handover communication also depends on the availability of appropriate tools for the classification of patient complexity, and not just limit handover information to the reasons for hospitalization, which are not enough to ensure patients safety and high-quality care. This theme also highlighted the need to identify means for handover that are both easy to use and effective.

Handover organization

From the interviews emerged the need for a tool that enabled to classify patients according to the level of healthcare complexity, and not by numbers. This aspect was important, because it entailed an uneven distribution of the workload among nurses:

"*… I frequently receive handovers according to the level of complexity, but the type and the order of the information they give me depends on the individual nurse… however the information is often sufficient so that I know what to do*" (Paediatric Nurse 1).

"*… often working in an emergency environment and with urgent cases, nurses omit to handover important information… this is due to heavy workload and poor teamwork*" (Paediatric Nurse 1).

"*… to avoid being interrupted we often use the medical room for our handover, but we still get disturbed by bells, telephones, people who come in and out, physicians who intervene to say their things… with no respect for our priorities*" (Paediatric Nurse 2).

"*… handovers need to follow a method... starting from infusion needed, admission, feeding… because sometimes important things are mistakenly not considered... and due to emergency situations not all nurses give the same importance to things like if a child prefers solid food or blended food...*" (Paediatric Nurse 2).

Handover topics

The handover appeared in many cases to be limited to the reason for hospitalization:

"*… many nurses handover information that regards only the patients they have cared for and at the wrong moment, so they get distracted and lose their own concentration and that our the group, and either forget to do things or give the wrong information…*" (Paediatric Nurse 1).

"*… I think that the best handovers are when they tell you a little bit about the history of the patient, and what happened before the patient arrived...*" (Paediatric Nurse 2).

Moreover, different health professionals attribute different levels of importance to the content of handover. Handover was also seen as a time for professionals to exchange views on certain healthcare topics. However, the time used to exchange views was not considered helpful, but rather a waste of time, because health professionals preferred to just report the main points during handover. Sometimes, by dwelling too much on one topic they often ended up omitting important aspects:

"*… too many details are sometimes useless and then you end up forgetting the most important thing… it is important to focus on what you should say, see, and on what you can omit…*" (Paediatric Nurse 3).

Missed communication was also perceived as a source of error:

"*… sometimes due to time pressured emergency activities we do not read all the information on the clinical record… but on the other hand clinical records sometimes do not contain all the information you need because we forget to write some things…*" (Paediatric Nurse 1).

"*… you omit things that then turn out to be important for the continuum of care… You forget to say… They were supposed to…All this means that something is missing in communication…*" (Paediatric Nurse 1).

Ideally the child's handover should include medical history, especially if they have a complex condition. The need to communicate in a concise and methodical way was deemed preferable as this could serve to avoid forgetting important aspects of care during handover.

Means used for handover

Verbal communication appeared to be the pivotal mode of handover:

"*I have to write everything, in chronological order, my notes are my mind… I tick the things as I do them… I principally listen to what they tell me during handover and then I read them, maybe at the end…*" (Paediatric Nurse 3).

The notes nurses wrote in the nursing diary were very important. Witten handovers enabled nurses to mentally order their work, also in a chronological sequence. The availability of a computerized clinical record, although it was considered to be very useful, it however appeared to be less handy than paper clinical records. The diary was not always read immediately. First nurses tended to see their patients, even because due to the heavy workload they did not always manage to read the diary at the beginning of their shift. For this reason, oral handovers were considered to have more value:

"*… I write the things my colleagues tell me during handover on a piece of paper… I pay a lot of attention to what I write, it is my personal opinion; technology, computers are very good, but twenty years ago I had everything clear before my eyes. Now instead you read everything on a computer, but it is not the same… in my opinion it is not the same thing*" (Paediatric Nurse 5).

What emerged was that oral handover was more practical and handier that written handover.

3) Local contextual factors

Finally, this theme underlines how contextual factors, such as the continuously changing rules and standards, as well as interruptions, make it challenging for nurses to work well. Sometimes, also excessive bureaucracy and use of computers are mainly seen as obstacles rather than facilitators.

Changes

The rapidly changing standards that nurses are required to meet obliged nurses to think and work differently from the way they were initially educated:

"*All our colleagues' education is not up-to-date, in the meantime they have had to continuously change and adapt to new rules and standards, and this rapidly changing context makes it even harder to work well*" (Paediatric Nurse 1).

"*… there is often a very disturbing atmosphere, phones ringing, people asking, physicians that interrupt you to tell you something they had previously forgotten and which they consider much more important than what we are doing…*" (Paediatric Nurse 2).
Therefore, every time a change is introduced, it was seen as a further burden rather than an occasion for professional development.

Time

Nobody declared exactly how much time was dedicated to handover, but if someone took "too much" time to say things, the other person's level of concentration went down:
"*… too many details are sometimes useless and then you end up forgetting the most important thing… it is important to focus on what you should say, see, and on what you can omit…*" (Paediatric Nurse 3).
"*… anyway we often don't have the time to go and read written handovers…*" (Paediatric Nurse 1).
"*… the best time for handover is at the beginning of the afternoon shift… because this is the time when both those who leave and those who come are less tired…*" (Paediatric Nurse 2).
"*Handover required the time necessary for the things our colleagues had to tell us… the time was respected*" (Paediatric Nurse 4).

Bureaucracy

Bureaucracy and computers were not seen as facilitators but rather as obstacles. Charts are filled in only because: "*this has to be done, although it is almost considered a waste of time*", "*… the implementation of the nursing plan, …is clear in the minds of nurses…*" (Paediatric Nurse 1).
"*… the introduction of the computerized clinical record hasn't improved things… on the contrary it often makes us lose even more time because either there aren't enough computers for all, or because they are slow or for downtime…*" (Paediatric Nurse 1).

Discussion

In this first exploration of nurses' experiences of handover in children's ED in Italy, many of the findings are reflective of international research findings across adult ED. Communication failures were inherently possible as was the potential for lapses in healthcare safety and accuracy [2] Similarly like Costa's [10] study, all too often nurses' verbal reports were found to be verbose, and spent too much time explaining matters that lost the attention of others. For the first time it is revealed that nurses' personal characteristics and their relationships with the family and other health professionals, influences the way they communicate and listen during handover. Confusion during handover, such as interruptions and phone calls, presented barriers to effective handover. Like many other studies there was a tendency, during handover, for nurses to focus on medical diagnosis only, and to omit important details about complex health or social/mental health history [10, 12, 17]. Sometimes, health professionals focused their attention entirely on one critical situation, without reporting the rest of the case, and thus transmitted incomplete information. Overall the participants believed that the lack of structure and availability of a common standardized approach negatively influenced the quality of handover. The findings revealed that health professionals reported that standardizing the language of communication would not just improve the daily planning of their clinical practice but could prevent them from mentioning irrelevant items and help them to focus on key points to effective and efficient care.

Conclusions

The strong perceived need to standardize the communication process during handover in this study led us to implement a mnemonic prompt tool in this ED to facilitate a more accurate and rigorous flow of information in the children's ED [28, 29]. Structured handover tools, which are commonly used means of information transmission in ED while useful in improving communication of care also entail risks [30]. Their implementation does not negate the need for good verbal and written communication skills, and their use might also be influenced by personal and local factors, as has been identified in this study. Follow up evaluation is therefore required to establish the effectiveness of such tools, perhaps using observation approaches. Additionally, as many structured tools have been developed in English speaking countries, they are not necessarily validated or known to be culturally appropriate for the Italian setting. Good handover in ED is vital to ensure quality holistic care and to avoid mistakes and omissions. The findings of this study reveal gaps in current local practice and demonstrate that despite widespread use of evidence-based practice internationally; the best available evidence does not always translate to into practice. It is important that nurse researchers and universities continue to commit to research that explores local problems and develops good practice. Qualitative and action research are important contributors to this practice development [31]. Although this type of research remains low on the perceived hierarchy of research evidence [32] they both have a vital contribution to practice development. Modern approaches to nursing research encourage a shying away from local based projects in favour of seeking out large funded research grants, regardless of their importance for nursing and/or healthcare practice [31]. Projects such as this one emphasise the need to continuously explore local practice, in an exploratory and subjective way, to uncover potential for risks to patients and their families [31]. It is only by continuously reflecting on practice in this way that the nursing profession can progress to an appropriate evidence-based profession, one that keeps the patients first [33].

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Conflict of interest statement

None declared.

Authors' contributions

All authors have agreed on the final version and meet at least one of the following criteria:

- substantial contribution to conception and design, data collection, or data analysis and interpretation;
- drafting the article or revising it critically for important intellectual content.

References

[1] Beckett CD, Kipnis G. Collaborative communication: integrating SBAR to improve quality/patient safety outcomes. J Healthc Qual 2009;31:19-28.

[2] Bagnasco A, Tubino B, Piccotti E, Rosa F, Aleo G, Di Pietro P, Sasso L. Identifying and correcting communication failures among health professionals working in the Emergency Department. Int Emerg Nurs 2013;21:168-72. doi: 10.1016/j.ienj.2012.07.005.

[3] Timmins F. Managers' duty to maintain good workplace communication skills. Nurs Manag 2011;18:30-4. doi:10.7748/nm2011.06.18.3.30.c8538.

[4] World Health Organisation. Final technical report: conceptual framework for the international classification for patient safety. Geneva: World Health Organisation 2009. Available at: www.who.int/patientsafety/taxonomy/icps_full_report.pdf (accessed 10th September 2016).

[5] Berry D, Courtenay M, Bersellini E. Attitudes towards, and information needs in relation to, supplementary nurse prescribing in the UK: an empirical study. J Clin Nurs 2006;15:22-8. doi: 10.1111/j.1365-2702.2005.01258.x.

[6] Bigham BL, Buick JE, Brooks SC, Morrison M, Shojania KG, Morrison LJ. Patient safety in emergency medical services: a systematic review of the literature. Prehosp Emerg Care 2012;16:20-35. doi: 10.3109/10903127.2011.621045.

[7] Greenwood MJ, Heninger JR. Structured communication for patient safety in emergency medical services: a legal case report. Prehosp Emerg Care. 2010; 14(3):345-348. doi: 10.3109/10903121003760788.

[8] Bost N, Crilly J, Patterson E, Chaboyer W. Clinical handover of patients arriving by ambulance to a hospital emergency department: a qualitative study. Int Emerg Nurs 2012;20:133-41. doi: 10.1016/j.ienj.2011.10.002.

[9] Venkatesh AK, Curley D, Chang Y, Liu SW. Communication of vital signs at emergency department handoff: opportunities for improvement. Ann Emerg Med 2015;66:125-30. doi: 10.1016/j.annemergmed.2015.02.025.

[10] Costa A. The standardization of the communication process for patient safety: a quali-quantitative survey in pediatric emergency nursing. Unpublished MSc Thesis: University of Genoa 2014.

[11] Moharari RS, Soleymani HA, Nejati A, Rezaeefar A, Khashayar P, Meysamie AP. Evaluation of morning report in an emergency medicine department. Emerg Med J 2010;27:32-6. doi: 10.1136/emj.2008.067256.

[12] Bruce K, Suserud B. The handover process and triage of ambulance-borne patients: the experiences of emergency nurses. Nurs Crit Care 2005;10:201-9.

[13] McCabe C, Timmins F. Communication skills for nursing practice. Basingstoke: Palgrave Macmillan 2006.

[14] Barbetti J, Lee G. Medical emergency team: a review of the literature. Nurs Crit Care 2008;13:80-5. doi: 10.1111/j.1478-5153.2007.00258.x.

[15] Källberg AS, Göransson KE, Florin J, Östergren J, Brixey JJ, Ehrenberg A. Contributing factors to errors in Swedish emergency departments. Int Emerg Nurs 2015;23:156-61. doi: 10.1016/j.ienj.2014.10.002.

[16] Dos Santos JL, Pestanab AL, Higashi GD, de Oliveira RJ, Cassetari Sda S, Erdmann AL. Organizational context and care management by nurses at emergency care units. Rev Gaúcha Enferm 2014;35:58-64.

[17] Callinan SM, Brandt NJ. Tackling communication barriers between long-term care facility and emergency department transfers to improve medication safety in older adults. J Gerontol Nurs 2015;41:8-13. doi: 10.3928/00989134-20150616-04.

[18] Forge J. Role of effective documentation in emergency departments. Emerg Nurse 2014;22:34-7. doi: 10.7748/en.22.3.34.e1304.

[19] Bost N, Crilly J, Wallis M, Patterson E, Chaboyer W. Clinical handover of patients arriving by ambulance to the emergency department - a literature review. Int Emerg Nurs 2010;18:210-20. doi: 10.1016/j.ienj.2009.11.006.

[20] Klim S, Kelly AM, Kerr D, Wood S, McCann T. Developing a framework for nursing handover in the emergency department: an individualised and systematic approach. J Clin Nurs 2013;22:2233-43. doi: 10.1111/jocn.12274.

[21] Anderson J, Malone L, Shanahan K, Manning J. Nursing bedside clinical handover an integrated review of issues and tools. J Clin Nurs 2015;24:662-71. doi: 10.1111/jocn.12706.

[22] Budd HR, Almond LM, Porter K. A survey of trauma alert criteria and handover practice in England and Wales. Emerg Med J 2007;24:302-4. doi: 10.1136/emj.2006.038323.

[23] Mullan PC, Macias CG, Hsu D, Alam S, Patel B. A novel briefing checklist at shift handoff in an emergency department improves situational awareness and safety event identification. Pediatr Emerg Care 2015;31:231-8. doi: 10.1097/PEC.0000000000000194.

[24] Gopwani PR, Brown KM, Quinn MJ, Dorosz EJ, Chamberlain JM. SOUND: a structured handoff tool improves patient handoffs in a pediatric emergency department. Pediatr Emerg Care. 2015;31(2):83-87. doi: 10.1097/PEC.0000000000000347.

[25] Hsiao AL, Shiffman RN. Dropping the baton during the handoff from emergency department to primary care: pediatric asthma continuity errors. Jt Comm J on Qual Patient Saf 2009;35:467-74.

[26] Mikkelsen G, Frederiksen K. Family centred care of children in hospital - a concept analysis. J Adv Nurs 2011;67:1152-62. doi: 10.1111/j.1365-2648.2010.05574.x.

[27] Vaismoradi M, Turenun H, Bondas T. Content analysis and thematic analysis: implications for conducting a qualitative descriptive study. Nurs Health Sci 2013;15:398-405. doi: 10.1111/nhs.12048.

[28] Marshall S, Harrison J, Flanagan B. The teaching of a structured tool improves the clarity and content of interprofessional clinical communication. Qual Saf Health Care 2009;18:137-40.

doi: 10.1136/qshc.2007.025247.

[29] Randmaa M, Mårtensson G, Swenne CL, Engström M. SBAR improves communication and safety climate and decreases incident reports due to communication errors in an anaesthetic clinic: a prospective intervention study. BMJ Open 2014;4:e004268. doi: 10.1136/bmjopen-2013-004268.

[30] Yu KT, Green RA. Critical aspects of emergency department documentation and communication. Emerg Med Clin North Am 2009;27:641-4. doi: 10.1016/j.emc.2009.07.008.

[31] Rolfe G. Practice development through research. Keynote paper given by Gary Rolfe at the Portuguese Nurses Association Conference. Lisbon, Portugal: 24-26 November 2010.

[32] Evans D. Hierarchy of evidence: a framework for ranking evidence evaluating healthcare interventions. J Clin Nurs 2003;12:77-84.

[33] National Health Service (NHS) England . Putting patients first: the NHS England business plan for 2014/15-2016/17 Leeds, NHS England, 2014. Available at: www.england.nhs.uk/wp-content/uploads/2014/04/ppf-1415-1617-wa.pdf (accessed 23rd September 2016).

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