The Situation, Background, Assessment and Recommendation (SBAR) Model for Communication between Health Care Professionals: A Clinical Intervention Pilot Study

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Abstract

Background: SBAR has been suggested as a means to avoid unclear communication between health care professionals and in turn enhance patient safety in the healthcare sector.
Aim: to evaluate hospital-based health care professionals experiences from using the Situation, Background, Assessment and Recommendation (SBAR) communication model.
Methodology: A quantitative, descriptive, comparative pre- and post-intervention questionnaire-based pilot study before and after the implementation of SBAR at surgical hospitals wards. Open comments to questionnaire items were analyzed qualitatively.
Results: The introduction of SBAR increased the experience of having a well-functioning structure for oral communication among health care professionals regarding patients' conditions. Qualitative findings revealed the categories: Use of SBAR as a structure, Reporting time, Patient safety, and Personal aspects.
Conclusions: SBAR is perceived as effective to get a structure of the content in patient reports, which may facilitate patient safety.

Key Words: SBAR, communication, health care professionals, patient safety.

Background

Unclear and ineffective communication between health care professionals is a common underlying cause of patient injuries in healthcare (Gawande, Zinner, Studdert, & Brennan, 2003). Therefore, the transfer of information between health care professionals is very important. If the information is unclear, there is a risk that it does not create a common understanding (Greenberg et al., 2007). Without a common understanding there is a risk that the basis for healthcare professionals to make correct assessments and appropriate decisions is lacking.

The Situation, Background, Assessment and Recommendation (SBAR) model has been suggested as a means to facilitate effective communication between health care professionals (Beckett & Kipnis,

2009). SBAR is a well-tested model (Instititute for Healthcare Improvement, 2015), which has been used for a long time for transmission of important information in complex work environments, for example in the nuclear industry, aviation and NASA's space program (Wallin & Thor, 2008). SBAR provides a framework for communication between members of the health care team about a patient's condition, and has been found to facilitate both the collection, organization, and exchange of information as well as be an effective strategy to develop teamwork (Leonard, Graham, & Bonacum, 2004). Studies show that there are many advantages to using a standardized model such as SBAR when communicating regarding patients (Beckett & Kipnis, 2009; Novac & Fairchild, 2012; Whittingham & Oldroyd, 2014). It provides an opportunity to maintain focus in the information transfer and to keep the information concise, accurate and easy to understand (Novac & Fairchild, 2012)**.** Patient safety will also be facilitated by having a structure for the information content when communicating regarding patients (Beckett & Kipnis, 2009; Novac & Fairchild, 2012), by serving as a reminder as to what should be communicated (Beckett & Kipnis, 2009).

Aim

The aim was to evaluate hospital-based health care professionals' experiences from using the Situation, Background, Assessment and Recommendation (SBAR) communication model.

Methodology

This pilot study had a quantitative, descriptive, comparative pre- and post-intervention design. Data were collected before and after the introduction of SBAR by a structured questionnaire with the possibility of commenting in free text (Polit & Beck, 2004).

Context and participants

The study was conducted at two surgical and one orthopedic ward, each with 26 beds, at a hospital in southern Sweden. The sample included all enrolled nurses, registered nurses and physicians (n=189) who were employed at the wards. No specific communication model was used at the included units before this study.

Data collection

The questionnaire was developed specifically for this study by two of the authors (LB and AW) based on previous personal and reported experiences (Wallin & Thor, 2008). The questions focused on how health professionals experienced the current communication structure (Table 1).

Intervention

The aim of introducing the SBAR model was to increase focus on patient safety when communicating information, while also saving time by enhancing the structure of the information.

When introducing SBAR, the specific content of the model needs to be adjusted to the relevant context (Ko CH, Turner, & Finnigan, 2011). Therefore, a working group was formed, composed of nurses, a physician, and one of the authors. Based on existing literature the working group presented two pocket-sized SBAR-based reference cards, one for communication when reporting between shifts and one for communication in instances of impaired patient status/needs for immediate medical consultation with a physician (Figure 1).

Procedures

Approvals from the hospital's chief medical officer and head nurses at the included wards were sought and received before initiating the project.

All staff received oral and written information about the aim of the project. They were then asked to individually complete the study questionnaire before the introduction of the SBAR model. When implementing the SBAR model all health care professionals at the included wards received oral and written information about how the SBAR model would be used, and the SBAR reference cards were made available to all staff. All health care professionals at the included wards were asked to complete the study questionnaire a second time, one year after the implementation of the SBAR model. The questionnaires were coded and no personal information was collected; reminders were sent to non-responders after X weeks.

Data analysis

Since pre-intervention responders could not be linked to pre-intervention responders, questionnaire data from the two time points were treated as independent

groups. Thus, quantitative data were analyzed using the Mann-Whitney *U*-test. P-values of ≤0.05 was considered significant. Written comments were analyzed qualitatively according to conventional content analysis (Hsieh & Shannon, 2005).

Results

The questionnaire was answered by 116 staff members before and 86 after the implementation of the SBAR model. A larger proportion of the staff reported that they found the structure and content of oral communication regarding patients efficient after as compared to before the introduction of the SBAR model; no other differences were found (Table 1). The written comments showed four themes: Use of SBAR as a structure; Reporting time; Patient safety and Personal aspects.

Use of SBAR as a structure

The majority of nursing staff described that SBAR was "very helpful" and provided a good structure to use in oral reporting on patients' conditions. Some respondents felt that they always had reported in a similar manner already before, so the introduction of SBAR was not seen as something new. There were some who had not used the model after its introduction, which mainly was due to forgetting to use it. One of the nursing staff did not think the ward actively used the SBAR model as intended.

Reporting time

The time taken for patient reporting was in part considered dependent on the person reporting. Some felt that the time for reporting had decreased since the SBAR structure "taught them to report correctly", while others felt that this took equally long or longer, but that the SBAR structure provided more efficient communications.

Patient safety

Patient safety was considered promoted by the SBAR model since it reduces the risk that certain aspects are missed when reporting. Sometimes staff experienced some deficiencies in patient safety in the oral communication between health professionals, particularly when nurses reported to physicians substituting for patients' regular responsible physician. It was proposed that patient safety can be enhanced by supplementing oral communication with available written documentation.

Personal aspects

Nursing staff felt that the success of the SBAR model to improve communication between staff was dependent on the person communicated. For example, the ability of the SBAR model to facilitate patient safety was considered related to exactly what was reported regarding a patient's condition. Other aspects related to the person reporting were the time taken for reports and compliance to the SBAR model. Furthermore, the extent to which staff felt respected for their knowledge and skills varied. For example, one nurse felt that physicians did not always respect her competence.

Discussion

This pilot study aimed at evaluating health care professionals' experiences of communication before and after the implementation of the SBAR model at three hospital wards. The study showed that SBAR was perceived to be a good structure to use when reporting patients' conditions. This was also shown in the study by Beckett and Kipnis (2009). However, some nurses in this study indicated that it sometimes took longer time to report when using the SBAR model. This could be seen as negative but may also mean that time was spent on ensuring that important aspects were reported and that nothing was missed (Whittingham & Oldroyd, 2014). The study shows that SBAR was considered to facilitate patient safety. SBAR can be seen as a checklist to ensure that all significant aspects will be covered when communicating patient reports, which may contribute to patient safety. Although patient care should be safe, indirectly we found indications of deficiencies in patient safety. For example, when the SBAR model was not used, which led to a risk that important information was not communicated. It is important that all members of the health care team take responsibility when introducing a new model.

Assess the patient, Read medical records, Have current information from medical records available

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		Reports between shifts	Impaired patient status/needs for immediate medical consultation
S	**Situation** Current problem	**Describe:** - Room/bed number - Patient's name and date of birth - Date of admission - Reason for admission	**Describe:** - Own name and ward - Patient's name and date of birth - Current problem - Current status - Modified Early Warning Score (MEWS) - Saturation/oxygen - Visual Analogue Scale (VAS) value if at pain
B	**Bakground** Provide brief medical history and overall summary of the situation.	**Describe:** - Relevant medical history - Social background - Level of care - Any allergies/hypersensitivities	**Describe:** - Reason for admission - Date of admission - Relevant medical history - Brief summary of current problem and treatment - The patient´s - Mental status: awake, orientation regarding person, time and place - Skin: warm, cold, dry, marbled, pale - Distal status - Neurological signs, weakness - Pain - Wounds/drainage - Nutrition: nausea, vomiting, eating/fasting - Elimination: urine/faeces
A	**Assessment** What do you think is the problem	**Brief report on current nursing status and care:** - Communication - Breathing/circulation - Nutrition - Elimination - Skin - Activity - Sleep - Pain - Psychosocial - Risk assessments: falls, pressure ulcers, etc.	**I think the problem is:** - Cirkulatory - Infection - Neurological - Respiratory **I don't know** what the problem is but the patient is worsened. **The patient seems unstable** and may deteriorate, something must be done.
R	**Recom-mendation** Provide a recom-mendation regarding what should be done based on the situation, background and assessment	**Suggested recommendations:** - Planning - Discharge plans	**Suggested recommendations:** - Come and assess patient now - Come and assess patient within 30-60 min - Transfer patient to ICU - Contact next of kin regarding the status - Other suggestions **Inquire regarding need for monitoring/assessments:** - X-ray, ECG, blood gas, pulse and blood pressure, respiration, saturation, other **Inquire regarding continued management:** - How often should vital parameters be reported? - How long can the problem be expected to maintain? - If the patient doesn't improve, within what time should I call again?

Figure 1: Merged contents of the two pocket-sized SBAR-based reference cards (for reporting between shifts and for instances of impaired patient status/needs for immediate medical consultation with a physician, respectively) used for the transfer of information between health care professionals.

Table 1. Sample characteristics and questionnaire responses before and after

introduction of the SBAR model [a]

	Before (n=116)	After (n=86)	P-value [b]
Age (years), %			0.950
21-30	22.4	19.8	
31-40	25.9	22.1	
41-50	20.7	24.4	
51-60	22.4	24.4	
>60	8.6	9.3	
Number of years in profession, %			0.748
< 1	8.8	4.8	
2-5	20.4	19.3	
6-10	15.9	21.7	
11-15	6.2	7.2	
16-20	6.2	3.6	
>21	42.5	43.4	
Today's oral communication ensures high patient security [c]	3 (2-3)	3 (2-3)	0.257
I feel confident in what should be reported to physicians/nurses/enrolled nurses regarding patient safety [d]	3 (3-3)	3 (3-3)	0.531
Today's oral communication regarding patients' conditions is based on respect for each other's expertise in the sense that I respect other professions' knowledge [c]	3 (3-4)	3 (3-4)	0.587
Today's oral communication regarding patients' conditions is based on respect for each other's expertise in the sense that my expertise is respected by other professions [c]	3 (3-3)	3 (3-3)	0.850
We have an efficient structure of the content of oral communication regarding patients' conditions [c]	3 (2-3)	3 (3-3)	0.001
Strongly disagree, %	0	1.2	
Disagree, %	16.5	8.3	
Neither agree or disagree, %	32.2	11.9	
Agree, %	45.2	70.2	
Strongly agree, %	6.1	8.3	
When I receive a verbal report on a patient, I get a good overview of the patient's condition [c]	3 (3-3)	3 (3-3)	0.624
When I receive a verbal report on a patient's condition, I am usually also recommended what to do [c]	2 (2-3)	3 (2-3)	0.748

[a] Dta are median (q1-q3) unless otherwise noted.
[b] Mann-Whitney U test. Md = median, Q1-Q3 = interquartile ranges.
[c] 0 = Strongly disagree; 1 = Disagree; 2 = Neither agree or disagree; 3 = Agree; 4 = Strongly agree.
[d] 0 = Never; 1 = Rarely; 2 = Sometimes; 3 = Often; 4 = Always

For example, the recipient of information may encourage the one providing the report to comply with the structure. Potential barriers to this may be, for example the hierarchical healthcare organization (Granerud & Severinsson, 2007). To bring about change is not an easy process. The interest and motivation of not only the individual, but also the team as a whole and the managers are major contributors as to whether an intended change occurs (Rytterström, Cedersund, & Arman, 2009).

Conclusion

Both this and other studies have shown that the SBAR model is considered a good structure for effective communication and enhanced patient safety. However, successful implementation of this model in routine health care also requires the will to change and improve communication, as well as mutual respect between all members in the health care team.

Acknowledgements

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