

Self-Evaluation of Nurses and Midwives Practices Using SBAR (Situation, Background, Assessment, Recommendation) Communication Tool on Maternal Health Documentation

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**المستخلص:**

**الهدف:** تقييم ذاتي للتأثير على البرنامج التعليمي SBAR (الحالة، الخلفية، التقييم، التوصية) على ممارسات الممرضة - القابلات في دقة وثائق تقرير صحة الأم. التقييم الذاتي لممارسات الممرضات والقابلات باستخدام اداة التواصل SBAR (الحالة، الخلفية، التقييم، التوصية) على تقرير صحة الأم.

**المنهجية:** تم تنفيذ تصميم شبه تجريبي مع تطبيق اختبار قبلي وبعدي لمعرفة وممارسات الممرضات والقابلات بخصوص أداة التواصل SBAR. أجريت الدراسة في مستشفى العلوية التعليمي، مستشفى الكرخ للولادة ومستشفى اليرموك التعليمي. تكونت الدراسة من عينة مستهدفة من (84) ممرضة وقابلة. تكون الاستبيان من البيانات الديموغرافية، وممارسات الممرضات والقابلات لأداة التواصل SBAR باستخدام (5) مستويات من مقياس (Likert) للتقييم، مع نقطة قطع (3). تم تحديد صلاحية المحتوى من خلال (21) خبير في المجال الطبي والتمريضي، أجريت دراسة تجريبية على (10) ممرضات وقابلات بمستشفى العلوية التعليمي للولادة خلال لفترة من 15 إلى 20 ايار 2017، ثبات الاستبيان 0,89، في الاختبار القبلي والبعدي والتقييم 0,936، استخدم التحليل الوصفي ولاستنتاجي لتحليل البيانات.

**النتائج:** اظهرت النتائج وجود فروق ذات دلالة إحصائية في جميع المجالات، لذلك نرفض فرضية العدم ( $H_0$ ) ونقبل الفرضية البديلة ( $H_1$ ). لأن حساب القيمة المحسوبة أكبر من قيمة الجدولة لكل درجة من درجات الحرية (3، 4) التي تطابق قيمة الجدولة (9, 488، 7, 816) على التوالي. المتوسطات ليست متساوية للجميع في التوزيع المربع الكامل وفي الدرجة المقابلة من الحرية. لا توجد فروق ذات دلالة إحصائية بين متغير التقييم (الممارسة) في برنامج SBAR مع الخصائص الاجتماعية والديموغرافية، باستثناء مكان العمل يظهر اختلافات كبيرة في (P-value: 0.000). كما تظهر النتائج أن المشاركين كانوا واثقين للغاية في تطبيق سيناريو تقدم السخدر، والإجهاض، وحمل المراهقات، الحمل المتأخر و الصرع النفاسي، التمزق المبكر لأغشية الجنين

**التوصيات:** بالتعاون مع وزارة الصحة لتفعيل اداة التواصل (SBAR) في المناهج التعليمية وتشجيع الممرضات - القابلات للالتحاق بورش العمل والمؤتمرات والبرامج التدريبية.

**الكلمات المفتاحية:** اداة التواصل (SBAR) الممرضة - القابلة، ممارسات، التوثيق، صحة الأم، التقييم.

**Abstract:**

**Objective:** To self-evaluate the effect of SBAR (Situation, Background, Assessment, and Recommendation) educational program on nurse and midwives practices in maternal health report documentation accuracy.

**Methods:** A quasi- experimental design was carried with the application of pre- post test for nurses and midwives' knowledge and practices regarding SBAR communication tool. The study was held in Al-Elwia maternity teaching hospital, Al -Karckh maternity hospital and Al-Yarmouk teaching Hospital. purposive sample as it was convenient with inclusion criteria consisted of (84) nurse and midwives. The questionnaire comprised of demographic data, nurses- midwives practices of SBAR using (5) level Likert scale for assessment, with Cut -off point (3). Content validity was determined through (21) expert. Pilot study was conducted on (10) nurses and midwives at Al- Elwia maternity teaching hospital during 15<sup>th</sup> to 22<sup>nd</sup>, may, 2017. Reliability of the questionnaire (pre (0.89), post (0.89), evaluation (0.936) Descriptive and Inferential statistical data analysis were used.

**Results:** The result shows that there is significant statistical differences in all domain, so we reject the nil ( $H_0$ ) hypotheses and accepted the alternative one ( $H_1$ ). Because the calculate value greater than table value for each degree of freedom (3,4) that corresponding the table value (7.816 ,9.488) respectively. The means are not equal for all in chi- square distribution and in the corresponding degree of freedom. No significant differences between evaluation variable (practice) in SBAR program with the socio-demographic characteristics, except for work place shows significant differences at (P-value : 0.000). The results also presents that participants were extremely confident in applying scenario for Placenta praevia, Abortion, Teenage pregnancy, Postdate pregnancy, Preeclampsia, and last Premature rupture membranes.

**Recommendations:** A coordination with Ministry of health in Iraq- to activate SBAR forma to be used in nursing curriculum. Encouraging nurse –midwives to attend workshop, conference training programs and review nursing care related to SBAR forms.

**Keywords:** SBAR, communication, tool, nurse-midwives, practices, maternal health, documentation, evaluation.

## Introduction

Poor communication in the healthcare system has been linked to patient safety events. Poor communication is responsible for up to two-thirds of sentinel events, and of those events, over half were related specifically to poor transition of patient care between providers <sup>(1)</sup>. The realities of our current complex healthcare system that may contribute to poor communication include the involvement of many team members using a variety of communication methods, professional hierarchies that inhibit communication and members of the healthcare team constantly changing because of shift and schedule changes. One inter professional communication strategy that has been recommended to improve quality and safety by overcoming some of these barriers is the Situation, Background, Assessment-Recommendation (SBAR) communication tool <sup>(2)</sup>. Accordingly, to implement practices

## Methodology:

A quasi- experimental design was carried throughout the present study with the application of pre-test and post-test for nurses and midwives' knowledge and practices regarding SBAR communication tool through

that aid in the reduction of communication errors <sup>(3)</sup>. The SBAR protocol was positioned as a solution to these problems. When SBAR is used, the sender communicates the patient's condition in a concise manner by delivering each of the components of the protocol in sequential order and without extraneous detail. This provides the receiver with an expected framework for communication, fosters preparation on the part of the sender, and reduces the likelihood of errors of omission <sup>(4)</sup>. According to Andrade & Du (2007) "Self-evaluation is a practice of formative appraisal during which individual replicate on and evaluate the excellence of their work and their learning, critic the degree to which they reflect explicitly affirmed goals or criteria, recognize strengths and weaknesses in their work, and modify accordingly" <sup>(5)</sup>.

nursing daily work . The study was held in Al-Elwia maternity teaching hospital, Al – Karckh maternity hospital and Al-Yarmouk teaching Hospital / maternity department. Non-probability sample consisted of (84)

nurse- midwives. The criteria for selecting the study sample are: Nurses and Midwives who are working in the morning shift, different educational levels, who are working in critical care wards (delivery rooms, intensive care units, maternal wards and maternal emergency), who agree to participate in the study.

#### **Implementation of the Program:**

At the SBAR- introduction, primarily the researcher provided staff with information about the study, asked them to participate, and obtain informed consent. The SBAR- intervention, based on the evidence for best practice, included teambuilding and collaboration strategies, positive communication techniques, communication styles, empathy, and problem-solving strategies. Intervention classes offered in 90 minutes sessions at various times throughout a 2-week timeframe provided ample opportunities for day shift staff to participate. A questionnaire was constructed through the review of literatures and previous study, and use of information which had emerged prior to need assessment, and applied before implementation of the educational program. The questionnaire was used as a means of data collection. It was comprised of: Demographic data, Nurses- midwives practices, SBAR sheet was developed to evaluate nurses-midwives practices of communication performance which was measured by observing the behavior of nurses and midwives, they were given a scenario in the simulation cases that required an urgent response and contact of a provider, the SBAR Observed for seven scenarios. The Tool was created by the researcher. (Post-partum hemorrhage, Premature-early rupture membranes, Placenta praevia, Teenage pregnancy, Preeclampsia, Abortion, & Postdate pregnancy). Evaluation of nurse and midwives satisfaction with SBAR, using (5 level) Likert scale , with cut-off point (3),

nurses- midwives evaluated their records to answer (29) question after the end of program with scoring ( strongly agree, agree, don't know, disagree, strongly disagree). Content validity of the program and study practice test was determined through (21) expert. A pilot study was conducted on (10) nurses-midwives at Al- Elwia maternity teaching hospital during 15<sup>th</sup> to 22<sup>nd</sup> , May, 2017. The time line for conducting the study from 26<sup>th</sup> of March 2017 to 30<sup>th</sup> April 2018. Reliability of the questionnaire was used to determine the accuracy of the questionnaire, since the results showed very high level of stability and internal consistency of the main study domains (pre (0.89), post (0.89), evaluation (0.936)). Descriptive ,and Inferential statistical data analysis were used.

Table (1): The Evaluation Variable in (SBAR program) by Using Chi-Square test on Overall Domains (Practice)(n=84)

No.	Items	Strongly disagree	Disagree	Don't know	Agree	Strongly agree	MS	SD	RS	Ass.	$\chi^2$	df	P-value	Sig.
		F (%)	F (%)	F (%)	F (%)	F (%)								
1	SPAR Program promotes continuous teamwork	1(1.2)	4(4.7)	0.00	53(63.1)	26(30.6)	4.1786	.76301	83.572	High	82.762	3	.000	HS
2	We are doing this in response, but without the need for a SPAR	15(17.9)	48(57.1)	8(9.5)	13(15.4)	0.00	2.2262	.92295	44.534	Low	47.524	3	.000	HS
3	Improve and enhance the spirit of cooperation between us	8(9.4)	6(7.1)	2(2.4)	46(54.1)	22(25.9)	3.8095	1.1870	76.19	Mod.	76.952	4	.000	HS
4	I encourage program evaluation	5(5.9)	3(3.6)	1(1.2)	44(52.4)	31(36.9)	4.1071	1.02989	82.142	High	90.524	4	.000	HS
5	Documentation is a personal and non-compulsory work	22(25.9)	16(18.8)	6(7.1)	26(30.6)	14(16.5)	2.9286	1.49526	58.572	Low	14.095	4	.007	HS
6	We need to document only emergency responses	38(45.2)	21(25)	4(4.8)	14(16.7)	7(8.3)	2.1786	1.38112	43.572	Low	43.738	4	.000	HS
7	These questions are easy and quick to be paid by the client	5(6)	7(8.3)	4(4.8)	40(47.6)	28(33.3)	3.9405	1.12315	78.81	High	63.262	4	.000	HS
8	In some emergencies it is very difficult to speak and take information from the patient	1(1.2)	5(6)	7(8.3)	45(53.5)	26(31)	4.0714	86129	81.428	High	81.238	4	.000	HS
9	This is an important topic that encourages communication between duties	4(4.7)	5(6)	2(2.4)	39(46.4)	34(40.5)	4.1190	1.04599	82.38	High	78.024	4	.000	HS
10	I don't agree that duty of doctor only	28(33.4)	10(11.9)	4(4.7)	21(25)	21(25)	2.9643	1.65337	59.289	Low	22.071	4	.000	HS
11	Shortening and not chatting helps you to work smoothly and accurately	4(4.7)	1(1.2)	4(4.7)	39(46.4)	36(43)	4.2143	.95780	84.286	High	85.643	4	.000	HS
12	Documentation is very important for ease of return when confusion occurs	5(6)	3(3.6)	3(3.6)	35(41.6)	38(45.2)	4.1667	1.07360	83.334	High	77.429	4	.000	HS
13	By SBAR can be therapeutic diagnosed or management error easy	3(3.6)	6(7.1)	7(8.4)	38(45.2)	30(35.7)	4.0238	1.02940	80.476	High	61.119	4	.000	HS
14	I know very well how to direct questions that serve the health of the patient	4(4.7)	2(2.4)	1(1.2)	51(60.7)	26(31)	4.1071	.91859	82.142	High	112.310	4	.000	HS
15	In emergency situations, mistakes are not discussed but depend on the speed of performance	12(14.3)	16(19)	5(6)	38(45.2)	13(15.5)	3.2857	1.33147	65.714	Low	37.310	4	.000	HS
16	It is duty for head nurse shaft -only	33(38.8)	21(24.7)	9(10.6)	18(21.2)	3(3.5)	2.2500	1.27888	45.00	Low	31.714	4	.000	HS

	and I have nothing to do with it													
17	Recommendations make me an active member of the importance of treating patient	6(7.1)	4(4.7)	1(1.2)	39(46.4)	34(40.6)	4.0833	1.12162	81.666	High	78.500	4	.000	HS
18	This program can now be applied but neglected after that because you do not care about it	18(21.4)	19(22.6)	10(11.8)	28(33.4)	9(10.7)	2.8929	1.36230	57.858	Low	14.214	4	.007	HS
19	The program atmosphere is fun and helpful	4(4.7)	1(1.2)	4(4.7)	47(56)	28(33.4)	4.1190	.92365	82.38	High	96.119	4	.000	HS
20	The situation and communication are a bit vague	18(21.4)	6(7.1)	13(15.5)	36(42.9)	11(13.1)	3.1905	1.36634	63.81	Low	31.833	4	.000	HS
21	Nursing documentation We need more than one program to get used to	5(6)	10(11.9)	6(7.1)	51(60.7)	12(14.3)	3.6548	1.05846	73.096	Mod.	88.976	4	.000	HS
22	The background of the case briefly appeared	12(14.3)	14(16.7)	7(8.3)	34(40.5)	17(20.2)	3.3571	1.35898	67.142	Mod.	25.167	4	.000	HS
23	Education examples wear difficult	19(22.6)	28(33.4)	5(5.9)	21(25)	11(13.1)	2.7262	1.40010	54.524	Low	19.095	4	.001	HS
24	Being a nurse and observing guest and applying description only	28(33.3)	22(26.2)	10(11.9)	13(15.5)	11(13.1)	2.4881	1.42689	49.762	Low	14.690	4	.005	HS
25	I respect the privacy of the patient so I don't recording anything	40(47.6)	13(15.5)	10(11.9)	13(15.5)	8(9.5)	2.2381	1.42794	44.762	Low	41.119	4	.000	HS
26	We found Sections lecture a useful training	5(6)	2(2.4)	10(11.9)	48(57.1)	19(22.6)	3.8810	.98672	77.62	Mod.	82.310	4	.000	HS
27	The case description is a useful way to teach different skills	3(3.6)	2(2.4)	4(4.7)	50(59.3)	25(30)	4.0952	.87287	81.904	High	103.738	4	.000	HS
28	I am becoming more aware of patient safety issues	4(4.7)	3(3.5)	3(3.5)	49(58.3)	25(30)	4.0476	.95570	80.952	High	98.143	4	.000	HS
29	I recommend that we study this method of documentation and communication in the nursing curriculum	10(11.9)	5(6)	4(4.7)	36(42.4)	29(34.1)	3.8214	1.30024	76.428	Mod.	51.595	4	.000	HS

MS: mean Score, SEM: Std. Error Mean, SD: Std. Deviation,  $\chi^2$ : Chi-square, df: Degree of freedom, Asymp. Sig: Probability value. Low: (0-60), Mod.: Moderate : (61-77), High (78-100) interval: 8

Table depicts that there is significant statistical differences in all domain, so we reject the nil ( $H_0$ ) hypotheses and accepted the alternative one ( $H_1$ ). Because the calculate value greater than table value for each degree of freedom (3,4) that corresponding the table value (7.816, 9.488) respectively. The means are not equal for all in chi-square distribution and in the corresponding degree of freedom as it illustrate in above table (1).

Table (2): The Correlation between the Four Tools in SBAR Program and the Relation between them in Pre - Post Periods

Paired Samples Statistics								
Items	Statistic	N	Mean	Std. Deviation	Std. Error Mean	Correlation	P-value	Sig.
	Pair 1	Situation_ student researcher	84	17.6667	5.44487	.59408	.859	0.000
Situation_ participant		84	17.8929	5.72043	.62415			
Pair 2	Background_ student researcher	84	16.1667	5.88204	.64178	.766	0.000	HS
	Background_ participant	84	16.5714	5.98046	.65252			
Pair 3	Assessment_ student researcher	84	15.6548	6.76364	.73797	.875	0.000	HS
	Assessment_ participant	84	15.5000	6.93950	.75716			
Pair 4	Recommendation_ student researcher	84	13.6429	7.73296	.84373	.896	0.000	HS
	Recommendation_ participant	84	14.2738	8.05007	.87833			

N= Number, Sig.= Significant; HS: High Significant

The table (2): presents that there is high correlation between the assessments if we compare the four tools as they shown in above table. So, this item indicate that if the correlation is very high between any two variables that is implies there is no statistical differences between them as shown in the below table.

**Table (3): Association of Evaluation Assessment Variables in (SBAR) Program with their properties using one sample T test between Researcher and Participants**

Statistic Items		Paired Differences					t	df	P-value	Sig. (2-tailed)
		Mean	SD	S. Error Mean	95% Confidence Interval of the Difference					
					Lower	Upper				
<b>Pair 1</b>	Situation_researcher Situation_participant	-.22619-	2.97520	.32462	-.87185-	.41947	-.697-	83	.488	NS
<b>Pair 2</b>	Background_researcher Background_participant	-.40476-	4.06015	.44300	-1.28587-	.47634	-.914-	83	.364	NS
<b>Pair 3</b>	Assessment_researcher Assessment_participant	.15476	3.43439	.37472	-.59055-	.90007	.413	83	.681	NS
<b>Pair 4</b>	Recommendation_researcher Recommendation_participant	-.63095-	3.61316	.39423	-1.41506-	.15315	-1.600-	83	.113	NS

SD; Standard deviation, t; t test , df; degree of freedom, Sig; significant, NS; non significant

Table (3) reveals that there is no significant statistics between every two tools from SBAR program because the correlation is very High. (Post researcher - Post Participant) due to this are approximation or similarity of means between the researcher and the participants' evaluation.

**Table (4): Correlation between the Researcher Student Evaluation (n=84) and the Participant Evaluation (n=84) Scores for the four SBAR Domains**

Domain Student Researcher	Participant			
	Situation	Background	Assessment	Recommendation
Situation	<b>.859</b>			
Background		<b>.766</b>		
Assessment			<b>.875</b>	
Recommendation				<b>.896</b>

This table indicates that there is no significant correlation between the evaluations for student researcher with participant.

**Table (5): Association between Evaluation Variable (practice) in SBAR Program and their Socio-demographic Characteristics**

Socio-demographic Characteristics	X <sup>2</sup>	df	P-value	Sig.
	Practice test -period			
Age groups/years	1.836	5	.871	NS
Educational level	5.836	3	.120	NS
<b>Work- Place</b>	<b>21.024</b>	<b>3</b>	<b>.000</b>	<b>S</b>
Years of experience	6.456	4	.168	NS
Work in shifts and vacation(duty)	1.577	1	.209	NS
No. of courses in nursing documentation in hospital	.370	7	.543	NS
No. of courses in nursing documentation (out hospital)	5.699	6	.458	NS

Df: Degree of freedom, P-value: Probability value, Sig.: Level of significance.

This table presents that there no significant differences between evaluation variable (practice) in SBAR program with the socio-demographic characteristics, except for work place shows significant differences at (P-value : 0.000) .

## Discussion

### Evaluation Variable in (SBAR program) by Using Chi-Square Test on Overall Domains:

The study depicted that there is significant statistical differences in all domain, so we reject the nil ( $H_0$ ) hypotheses and accepted the alternative one ( $H_1$ ). Because the calculate value greater than table

value for each degree of freedom (3,4) that corresponding the table value (7.816 ,9.488) respectively. The means are not equal for all in chi- square distribution and in the corresponding degree of freedom as it illustrate in table (1).

A study findings demonstrated that the SBAR communication technique provided an organized logical sequence and improved



communication that had been proved to ensure patient safety. The quality of information associated with the use of SBAR was reported to be good. Of the members of staff, 91.2% expressed satisfaction with the use of SBAR. Also, 53.9% of the nurses stated that they would always recommend the SBAR framework in other areas <sup>(6)</sup>. Another study found that nurses communication was necessary to exchange essential information to ensure patient safety and quality of care. In addition, the development of a handoff tool was shown to enhance communication between nurses and patients. This study also revealed that the SBAR communication tool was an efficient tool and that it followed a logical sequence. It was interesting to note that, though around half (55%) of the nurses indicated that they completed handover communication using SBAR within 5 minutes <sup>(7)</sup>. It was stated that SBAR facilitate communication between professions and increase safety as well as to decrease the negative effects the professional hierarchy may have on communication. Their results also showed that implementation of the communication tool SBAR resulted in significant improvement over time in staff members' perceptions between-group communication accuracy and safety climate as well as a tendency towards improvement within- group communication accuracy. Furthermore, the proportion of incident reports due to communication errors decreased significantly, from 31% to 11% , in the intervention group compared with a non-significant decrease, from 25% to 19%, in group study <sup>(8)</sup>.

### Self-Evaluation

Correlation between the four tools in SBAR program and the relation between them in pre - post Periods shows that there is high correlation between the assessments if we compare the four tools as they shown in table (2), that these item indicate that if the

correlation is very high between any two variables that is implies no statistical differences between them. While association of evaluation assessment variables in (SBAR) program with their properties using one sample T test shows that there is no significant statistics between every two tools from SBAR tool program because the correlation is very high (Post researcher - Post Participant) because the approximation or similarity of means between the researcher and the participants' evaluation. Table (3).

Correlation between the researcher student evaluation and the participant's evaluation scores for over the four SBAR domain indicated that there is no significant correlation between the evaluations for researcher with participant table (4).

A study conducted to assess the correlation between clinical skills self-assessment of nursing internship trainees with their teacher's evaluation found that self-evaluation can allow the participants to attain higher goals and try harder to recognize these goals; self-appraisal also improves the participant's judgments about their professional prospect and enhances their knowledge. Also stated that nursing faculties have an accountability to review their own performance capability, and so midwives should be provided with opportunities for self-appraisal during their academic program in order to build up and improve their ability, self-evaluation checklists can help learners develop meta-cognitive skills, enhance their learning strategies, and assist them in order to becoming independent, confident learners <sup>(9)</sup>.

Another study have also compared students' self-assessments of midwifery students to teachers' evaluations in an obstetrics course and reported that no significant difference was observed between the mean score of evaluation by instructors and the mean score of students' self-evaluation <sup>(10)</sup>.

It was reported benefits of self-assessment is the feedback from students that the self-assessment prerequisites made them return regularly to the criteria as they were working on the assignment and kept them examining their own performance<sup>(11)</sup>.

Also, stated that there were no studies evaluated student's clinical skills using SBAR, it was recommended that, SBAR as one of the effective tools to standardize recommendation communication. SBAR tool can be used for prompt and proper communication of patient information<sup>(12)</sup>.

#### **Association between Evaluation Variable in SBAR Program and Socio-Demographic Characteristics:**

The result presents no significant differences between evaluation variable (practice) in SBAR program with the socio-demographic characteristics, except for work place shows significant differences at (P-value : 0.000) table(5). These results consistent with study to find the association between nurses' demographic characteristics and their perception about using SBAR tool, there was no statistically significant difference between the overall perception scores observed among participants with differences in age group, gender, the total number of years of experience in nursing, and the amount of expertise using ( $\chi^2$  df *p*-value test)<sup>(6)</sup>.

In a study using descriptive statistics, and independent t-test to identify the association between socio-demographic data with the effects of SBAR usage on the nurses' communication skills, all the result presents significant differences, except there was minimal difference in mean and standard deviation in the respondents' ward placement with scoring slightly higher (M = 25.92, SD = 7.87) than the specialty nurses with no significant difference (t = 0.745; p value > 0.05) (M = 25.01, SD = 7.89)<sup>(13)</sup>.

#### **Recommendations:**

A coordination with Ministry of Health in Iraq-Nursing and Health to:

1. To activate SBAR forma to be used in nursing curriculum.
2. Encouraging nurse –midwives to attend workshop, conference training programs and review nursing care related to SBAR forms.

#### **References:**

1. Pillow, M. (Ed.). (2007). Improving hand-off communication. Oakbrook, Ill.: Joint Commission Resources.
2. Matthew Kostoff, PharmD, Crystal Burkhardt, PharmD, Abigail Winter, PharmD, Sarah Shrader, PharmD, 2016, Instructional design and assessment . An Inter-professional Simulation Using the SBAR Communication Tool, American Journal of Pharmaceutical Education; 80 (9) Article 157.
3. Doucette J. 2006View from the cockpit: What the aviation industry can teach us about patient safety. Nursing.;36(11): 50-53.
4. Marini V, editor. 2005, The SBAR technique: improves communication, enhances patient safety. J. Comm Perspect Patient Safety 2005;5:1-2, 8..
5. Andrade, H., & \*Du, Y. (2007). Student Responses to Criteria Referenced Self-assessment, educational administration & policy studies faculty scholarship Student responses to criteria-referenced self-assessment., 32(2), 159-181.
6. Santhirani Nagammal1, Abdulqadir J. Nashwan Sindhumole LK. Nair1, Anupama Susmitha :Nurses' perceptions regarding using the SBAR tool for handoff communication in a tertiary cancer center in Qatar

- 2017, <http://dx.doi.org/10.5430/jnep.v7n4p103>, Journal of Nursing Education and Practice.
7. Gage W. Evaluating handover practice in an acute NHS trust. *Nursing Standard*. 2013 Jul 31; 27(48): 43-50. <https://doi.org/10.7748/ns2013.07.27.48.43.e7753>.
  8. Randmaa M, Mårtensson G, Leo Swenne C, Engström M. 2014; 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.
  9. Adib-Hajbaghery, M, Karbasi-Valashani, K., & Heidari-Haratmeh, A. (2012). Correlation of Clinical Skills Self-Assessment of Nursing Internship Trainees with Their Teachers' Evaluation. Retrieved from <http://nmsjournal.com/?page=article> Spiller, D. (2012). *Assessment Matters: Self-Assessment and Peer Assessment*
  10. Delaram M, Tootoonchi M. 2010, Comparing Self- and Teacher-Assessment in Obstetric clerkship Course for Midwifery Students of Shahrekord University of Medical Sciences. *Iranian J Med Edu*. 2010;9(3):231-8
  11. Spiller D. 2012. *Assessment Matters: Self-Assessment and Peer Assessment*. Hamilton, New Zealand: Teaching Development, University of Waikato; 2012.
  12. Thomas, V., & Dixon, A. (2012). *Improving Safety in Maternity Services*. The King's Fund.
  13. Ho Siew Eng , Akina Teh Gek Kin , Thanaletchumi A/P Mani 2010 , Effects of Situation, Background, Assessment, and Recommendation (SBAR) Usage on Communication Skills among Nurses in a Private Hospital in Kuala Lumpur, JKIMSU, Vol. 6, No. 2, April-June 2017 ISSN 2231-4261.