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NURSE'S PERCEPTION AND COMPLIANCE ON IDENTIFICATION, SITUATION, BACKGROUND, ASSESSMENT AND RECOMMENDATION (ISBAR) TOOLS FOR HANDOFF COMMUNICATION IN TERTIARY HOSPITAL, DAMMAM

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ABSTRACT

Background: The identification, situation, background, assessment and recommendation (ISBAR) is a handoff tool that plays an important role in transferring responsibility and accountability in patient care from outgoing shifts to incoming shifts. Many researchers believe that handoff is very important among nurses. Nurses had the responsibility to ensure patients' correct information which were shared among themselves during handoff. It also delivers the best patient care by improving the transfer of clinical information globally and systematically. **Purpose:** The aim of the study is to determine nurse's perception and compliance on ISBAR tool for handoff communication in tertiary hospital, Dammam. **Method:** A cross-sectional descriptive study was conducted in oncology unit at tertiary hospital, Dammam, Saudi Arabia. Total sample size was 70. Questionnaire was the instrument tool in the study to measure nurse's perception and compliance on ISBAR tools. **Result:** The overall perception mean score achieved was 38.64±1.455 and compliance score was 7.73±0.588. This showed nurses had good perception and compliance on ISBAR tools and none of them had poor perception and compliance regarding the same. There was statistically significant relationship (P=0.000) between perception and compliance on ISBAR tools. **Conclusion:** ISBAR is reliable and effective handoff communication tools to promote patient safety. However, continuous education should be maintained to ensure all nurses competent in ISBAR tool. Further studies will be necessary to evaluate relationship between nurses' perception and compliance on ISBAR tool.

Keywords: Compliance, ISBAR, Perception

INTRODUCTION

Handoff process plays an important role, mainly the transferring of responsibility and accountability in patient care from outgoing shifts to incoming shifts. Many researchers claimed that handoff process among nurses is crucial. They have the responsibility to ensure the correct information regarding patients is share among themselves during handoff periods (Mamalelala, 2017).

Identification, Situation, Background, Assessment and Recommendation (ISBAR) is a standardize communication tool to convey important information about patients during shift to shift report communication. Shift report is significant as a handoff process among all the healthcare workers. ISBAR tool is recommended by the Joint Commission (2014) to improve communication within multidisciplinary team and reduce medical errors. The word "I" for identity was added to the old tools, Situation, Background, Assessment, and Recommendation (SBAR) allows healthcare workers to identify themselves and patients to the receiver of the information. ISBAR tool is impactful because it forms a systematic framework for effective communication.

ISBAR tool not only engaging in nurse-to-nurse handoff process, it also used in communication between nurses, physicians and other healthcare workers. It proved to report concise, pertinent, and complete verbal information of patient during handoff. This routine takes place at the change in duty shift and in other clinical settings, such as interdepartmental patient transfer to ensure safe, effective and high-quality patient care.

Nursing reports and handoffs need to be performed efficiently because they provide us with the opportunity to ask questions, seek clarification, and confirm information. It delivers best patient care by improving the transfer of clinical information, responsibility and accountability between members of the healthcare team, and used as global communication tools. Manser & Foster (2011) agreed that clinical handoff is associated with risk in terms of patient safety and continuity care.

OBJECTIVES

General Objective

To determine the nurse's perception and compliance on ISBAR tools for handoff communication in Tertiary Hospital, Dammam.

Specific Objectives

1) To determine the level of nurse's perception on ISBAR tools for handoff communication.

2) To determine level of compliance of nurse's on ISBAR tools for handoff communication

3) To identify the relationship between the level of nurse's perception and compliance on ISBAR tools for handoff communication.

RESEARCH METHODOLOGY

Methodology refers to a discussion of the underlying reason why particular methods are used. This is the main part for every research. This chapter included the study type, study design, study population, sampling method, research instrument, inclusion and exclusion criteria as well as the data collection method. The ethical considerations, validity and reliability are also discussed.

The researchers' objective is to determine the perception and compliance on ISBAR tools for handoff communication among oncology nurses. Therefore, a quantitative approach for this study has been selected. As stated by Sis International Research (2018), quantitative research is an organized method of gathering numerical data and accurately interpreted by using statistical method.

In this research, a descriptive study by using cross-sectional design was chosen. As mentioned by Polit & Beck (2017), in research design consists of two categories which are experimental and non-experimental designs. The researchers chose non-experimental design whereby participants answer questions through questionnaires to determine the level of perception and compliance on ISBAR tools for handoff communication as well as the relationship between two variables. This method promotes a quick and easy data collection and use statistical analysis to examine correlations between specific variables.

Ethical consideration

Written informed consent required before conducting this study. Ethical approval for the study will be obtained from the ethical review committee of Lincoln University College (LUC). The Ethics Committee of Hospital and Director of Nursing approved the study in full accordance with international standards for the ethical use of human subjects in research. Nurse manager in each unit also informed with permission to proceed this study. Privacy and confidentiality were assured and no potential harm for the participants and hospital. Informed consent was distributed among participants.

RESULTS

All information from data collection forms enter the IBM Statistical Package for the Social Sciences (SPSS) version 25 and Microsoft excel for analysis. A series of descriptive analysis are conducted to analyse social demographic data and the relationship of perception and compliance regarding ISBAR tool for handoff. The result is analyses and present in the form of table and bar chart.

A total of 70 participants approach by the researchers agree to participate in this research. None of the participants refuse to participate in the survey. The response rate for this study is 100% (n = 70).

Social Demographic Data

The Demographic data summarized in Table 1 below. Majority of the participants are female (82.9%). The highest participants age is between 31 to 40 years old (51.4%). Most of them have general working experience between 11 to20 years (52.9%) and oncology experience 6 to 10 years (40%). Among 75.7% of the participants have Bachelor's in nursing, 11.4% of them have Diploma in nursing, and 7.1% have post basic in oncology.

Table 1: Social Demographic Data of Participants

Variables	Category	Frequency (*n*)	Percentage (%)
Age	21 – 30	16	22.9
	31 – 40	36	51.4
	41 – 50	16	22.9
	51 – 60	2	2.9
Gender	Male	12	17.1
	Female	58	82.9
Education Level	Diploma in Nursing	8	11.4
	Post Basic in Nursing	5	7.1
	Bachelor in Nursing	53	75.7
	Master in Nursing	4	5.7
Nursing Experience	Less than 5 years	0	0
	5 - 10 years	22	31.4
	11 - 20 years More than 20 years	37 11	52.9 15.7
Oncology Experience	Less than 1 year	0	0
	2 - 5 years	23	32.9
	6 - 10 years	28	40
	More than 10 years	19	27.1
	Total participants	70	100

Descriptive Findings

Table 2 below displays the level of perception towards ISBAR. Majority of the participants (92%) perceive ISBAR as time efficient, reliable and effective. The total mean score obtains from the participants regarding perception of ISBAR tools is 38.64± 1.455.

Table 2: Items for Perception Questionnaire

Items	Strongly disagree	Disagree	Neither Disagree nor agree	Agree	Strongly agree	Mean±SD
	n / %	n / %	n / %	n / %	n / %	
Q1. Is the ISBAR handoff tool time efficient?	0	0	0	5 / 7.1	65 / 92.9	4.93±0.259
Q2. Is the ISBAR handoff tools reliable for each patient?	0	0	0	4 / 5.7	66 / 94.3	4.94±0.234
Q3. Is the usage of ISBAR handoff tool appropriate during each and every endorsement?	0	0	0	6 / 8.6	64 / 91.4	4.91±0.282

Q4. Critical patient information will be omitted in ISBAR handoff tools.	57 / 81.4	13 / 18.6	0	0	0	4.82±0.392
Q5. Patient information is structured poorly in ISBAR handoff tool.	29 / 41 .4	34 / 48.6	7 / 10	0	0	4.31±0.649
Q6. During handoff, I am informed which patients are unstable or require more urgent attention.	0	0	0	8 / 11.4	62 / 88.6	4.89±0.32
Q7. ISBAR handoff tool can reduce communication error and improve patient safety.	0	0	0	6 / 8.6	64 / 91.4	4.91±0.282
Q8. Overall, I have confidence accepting responsibility for patient care using the ISBAR communication tool.	0	0	0	5 / 7.1	65 / 92.9	4.93±0.259
Total mean score						38.64±1.455

Table 3 below demonstrates items for compliance towards ISBAR. Overall 96.9% perceive positive feedback on ISBAR compliance. The total mean score obtains from the participants regarding compliance of ISBAR tools is7.73±0.588.

Table 3: Items for compliance questionnaire

Items	**Yes** n / %	**No** n / %	**Mean±SD**
Q1. Complete the handoff tool at the end of my shift report.	66 / 94.3	4 / 5.7	0.94±0.234
Q2. I use the handoff tool while giving change of shift report.	69 / 98.6	1 / 1.4	0.99±0.12
Q3. I find that the handoff tool up to date when I use it	65 / 92.9	5 / 7.1	0.93±0.259
Q4. It is clear to me what information is expected to be in each section of the handoff tool.	67 / 95.7	3 / 4.3	0.96±0.204
Q5. I feel most nurse change of shift report is well organized and clear.	67 / 95.7	3 / 4.3	0.96±0.204
Q6. After change of shift report I feel that I have all the information I need to take good care of my patients.	70 / 100	0	1±0
Q7. The length of time that change of shift report takes is usually appropriate.	67 / 95.7	3 / 4.3	0.96±0.204
Q8. I feel that a standardize change of shift report method would improve communication.	70 / 100	0	1±0
		Total mean score	**7.73±0.588**

Normality Test

A normality test is used to determine whether sample data is normally distributed or not. The table below present the results from two well-known tests of normality, namely the Kolmogorov-Smirnov Test and the Shapiro-Wilk Test. Due to the small sample size, the author will base on result from the Shapiro-Wilk Test. Table 4 below show that the data is not normally distribute as p value below is 0.05.Therefore, since the data is not normally distributed, the author chooses non-parametric Spearman correlation to analyse data.

Table 4: Normality Test

	Kolmogorov -Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total Perception	0.376	70	0.000	0.723	70	0.000
Total Compliance	0.478	70	0.000	0.510	70	0.000

a. Lilliefors Significance Correction

Inferential Statistics

Non-parametric Spearman correlation test is used to determine the significant relationship between level of perception and level of compliance on ISBAR tools. The finding shows in Table 5 indicate a positive significant relationship between perception and compliance on ISBAR tools (r=0.413, p<0.000). The relationship is positive, indicating that the higher the

perception of ISBAR tools, the higher the compliance towards ISBAR tools.

Table 5: Spearman Correlation

Variables	**Compliance**	
	rho- value	*p* - value
Perception	0.413 **	0.000

Spearman correlation
***. Correlation is significant at the 0.01 level (2-tailed).*

DISCUSSION

The aim of this study was to study nurse's level of perception and compliance on ISBAR tools for handoff communication in tertiary hospital, Dammam. In this chapter, the main findings of the study are discussed. Firstly, the chapter provided the summary of the main findings of the study then were discussed in comparison to the findings from the previous studies. Finally, this chapter discussed the strengths and limitations of the study followed by the recommendations for further improvement on current issue. The summary of this chapter was provided in the last section.

Overall there was good perception and compliance on ISBAR tools. Total mean score for level of perception and level of compliance on ISBAR tools found to be both in good range according to the mean score this study achieved with the guidance from previous study done from another authors. In conclusion, there was significant relationship between perception and compliance on ISBAR tools.

This study presented with level of perception on ISBAR tools among oncology nurses with a total mean score of 38.64 ± 1.455. Followed the guidance from previous author Thompson *et al* (2014), the result of mean score 35±0.478 and above showed good perception in ISBAR tools for handoff communication. The results presented from this study was positive and none of them had poor perception on ISBAR tools. Finding coincides with previous study conducted by Nagammal *et al.*, (2016) which indicated that 87.3% of nurses had good perception regarding the use of ISBAR. As a baseline study of perception and compliance on ISBAR tools among oncology nurses conducted in tertiary hospital, Dammam, Saudi Arabia, the result was good. It can be explained by regular reinforcement by tertiary hospital, Dammam quality management team to nurses on importance of ISBAR tools for continuity of patient care.

92% of oncology nurses perceived ISBAR tools for handoff communication is time efficient. This finding agrees with Blom *et al.*, (2015), which showed time consumed for handoff had decreased by using ISBAR tools. Our findings also showed that most nurses strongly agree that ISBAR handoff tool can reduce error in communication and improve patient safety (91.4%). Siew Eng, Kin & Mani (2017) conducted handoff study in a private hospital in Kuala Lumpur, Malaysia that shows ISBAR is an effective tool that enhance patient's safety.

However, there were 10% of oncology nurses who think patient information is structured poorly in ISBAR tools. This can be concluded that still minority nurses did not understand well the concept of ISBAR. Thus, there is confusion regarding the structure and individual item to display in ISBAR tools. According to Nuru *et al.*, (2015) result revealed those having higher educational status and attending formal training were positively associated with perception. In-service training and updating of ISBAR guideline forum were some of the important steps to improve nurse's perception on ISBAR.

For overall nurses' practice, study showed that level of compliance on ISBAR tools among nurses achieved by a mean score of 7.73±0.588. In comparison with study done by Kraus in 2017 to measure the level of compliance on ISBAR tools among PICU nurses, the result of his study was with mean score 6.5± 0.294. Author stated that mean score above 6.5 showed good compliance on ISBAR tools.

This result also showed that oncology nurses in Dammam Hospital has compliance on ISBAR tools for handoff communication. All participants agreed they have all the information they need to take good care of their patients after change of shift report. They belief a standardize change of shift report would improve communication among nurses. Study done by Malekzadeh *et al.*, (2013) emphasized that a standardize information in communication promote nurses' safe practice therefore quality patient care will be improved. 95.7% of the nurses understand the information in each section of the ISBAR tool. Lack of knowledge is more

likely to generate mistakes when transferring critical information during clinical handoff (Masal *et al.*, 2017).

A study conducted by Alolayan *et al.*, (2017) in Saudi Arabia showed an average ISBAR compliance of 45% among oncology physicians. With compare of this finding result, nurses had good compliance on ISBAR. tertiary hospital, Dammam nurses practiced ISBAR tool as a handoff communication. 98.6% nurses agreed they use handoff tool while giving change of shift report. Among 94.3% of nurses able complete the handoff tool at the end of their shift routinely however there is still 7.1% of nurses find that ISBAR tools is not up to date when they use it. Hence, nursing quality management team should involve in maintaining the practice of ISBAR tools in shift to shift commutating tools. Outcoming nurses play an important role to emphasize the ISBAR tools completeness to incoming nurses on important to complete ISBAR tools to improve nurse's compliance in ISBAR.

There is relationship between perception and compliance of ISBAR tools among nurses. The positive result of Spearman test showed the higher the level of perception on ISBAR tool, the higher the compliance on ISBAR tool. According to Joint Commission International (2014), to ensure adequate information shared during handoff, a standardize communication tool ISBAR was highly recommended. In accordance to Joint Commission International (2014) requirement, tertiary hospital, Dammam always provided training and update of new guideline regarding ISBAR tools. Therefore, nurses should have good perception and compliance on ISBAR tool for them to meet the standard practice. Nonetheless, not known article being found on relationship between level of perception and compliance on ISBAR tool for handoff communication.

Limitations of study

This study was conducted in oncology division and did not include all the nurses from other speciality and area. Limited sample size could lead to the inadequate gathering of data due to the small population of oncology nurses. Cross sectional method of study was used and only done in one hospital in Saudi Arabia. Another limitation in this study was the use of only self-reported method in obtaining the data. This method is known to have several potential biases including exaggeration and response bias.

CONCLUSION

A standardize communication tool ISBAR is important to relay relevant information necessary for continuity patient care and had been proven to be an efficient, reliable and effective handoff communication tool. It was proven to prevent communication error, improve staff satisfaction and patient safety. Hence, good perception and compliance on ISBAR tool in nurses are utmost vital to achieve this goal. There was significant relationship between nurse's perception and compliance on ISBAR tool. Even though positive result was found in this study, however, adequate and regular educational program need to maintain and be sure all nurses competent in ISBAR tool. Due to lack of studies found on relationship between perception and compliance on ISBAR tool, thus further studies will be necessary to evaluate nurses' perception and compliance with ISBAR tool.

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