Can Learning the ISBARR Framework Help to Address Nursing Students’ Perceived Anxiety and Confidence Levels Associated With Handover Reports?
Sarah Kostiuk, EdD, MN, RN

ABSTRACT

Background: Standardized communication frameworks are believed to help students feel more confident and less anxious about handover reports. One of the handover communication frameworks being used in nursing programs was the ISBARR framework (Identify, Situation, Background, Assessment, Recommendation, and Repeat). The aim was to explore whether learning the ISBARR framework affected nursing students’ perceived anxiety and confidence levels associated with handover reports. Method: The study tested null hypotheses by analyzing pre- and posttest data collected with the Competitive State Anxiety Inventory-2 (CSAI-2) survey. Three qualitative questions were included in the posttest to compare with the quantitative data. Statistical significance was set at $p = .02$. Results: The results revealed that learning the framework had a strong effect in reducing the perceived somatic anxiety levels, a medium effect on increasing perceived confidence levels, and a medium effect in reducing the perceived cognitive anxiety levels. Conclusion: Findings suggested that learning the standardized framework may help to address students’ perceived anxiety and confidence levels associated with handover reports and generate a mental picture of handover reports. [J Nurs Educ. 2015;54(10):583-587.]

Research Brief

Nurses must be competent in giving and receiving handover reports to prevent adverse events and ensure patient safety. The Canadian Medical Protective Association (2011), the World Health Organization (WHO, 2011), and the Joint Commission (2011) urged health care educational institutions to implement techniques that can enhance handover reports. Nursing students have hindering levels of anxiety and confidence with regards to handover reports (Collins, 2014; Solomon & Salifi, 2011). Standardized communication frameworks are thought to make students feel confident and less anxious about handover reports (Enlow, Shanks, Guhde, & Perkins, 2010; Lyerla & Barry, 2014; National Clinical Guideline Committee, 2014). Several handover communication frameworks exist (Curtis, Tzannes, & Rudge, 2011). One of the frameworks recommended for handover reports being used is the ISBARR framework, which stands for Identify, Situation, Background, Assessment, Recommendation, and Repeat (Enlow et al., 2010; Lyerla & Barry, 2014). This article reports on a study that explored the relationship between learning the ISBARR framework and a group of nursing students’ perceived anxiety and confidence levels associated with handover reports.

The Problem

Failing to deliver effective handover reports can lead to adverse events and harm patient safety (The Joint Commission, 2011; National Clinical Guideline Committee, 2014). Some studies of hospitals in North America revealed communication inadequacies that resulted in complications (Agarwal, Sands, & Schneider, 2010; Choromanski, Frederick, Mckelvey, & Wang, 2014). In Canada, poor communication during coordination planning has led to readmissions (Health Quality Ontario, 2012). The Joint Commission Center for Transforming Healthcare (2010) found that 37% of the handover reports given in some hospitals did not communicate the necessary information. Capek, Pascarella, and Wymard-Tomlinson (2013) identified that high anxiety and a lack of confidence hindered handover reporting techniques. Others have also indicated that the main cause of problems identified with nursing students’ handover reports is high anxiety and lack of confidence (Collins, 2014; Krautscheid, 2008; Maginnis & Croxon, 2010; Solomon & Salifi, 2011; Thomas, Bertram, & Johnson, 2009).

Literature Review Summary on Handover Reporting Frameworks

One of the recommended ways to enhance students’ handover reports is to teach students a consistent standardized commu-
communication framework (Blouin, 2011; Curtis et al., 2011; Lyerla & Barry, 2014; Riesenberg, Leisch, & Cunningham, 2010). Several communication frameworks for handover reporting exist. It has been stressed that handover reports must convey the key pieces of information needed to provide care, such as information about a patient’s care plan, treatment, condition, and changes (Lyerla & Barry, 2014; WHO, 2011). The literature also recommends using a communication framework that allows time for clarification (Eldridge, Wilson, Pfeffer, & Murphy, 2010; The Joint Commission Center for Transforming Healthcare, 2011; National Clinical Guideline Committee, 2014). A collective limitation seen with some of the frameworks being used was that all did not include steps for clarification.

One of the frameworks being used that includes a step for clarification, along with steps to communicate the other key pieces of information needed for handover reports, is the ISBARR framework (Enlow et al., 2010). The ISBARR framework’s steps (Enlow et al., 2010; Shanks, Enlow, & Guhde, 2012) are:

- Identify: The speaker identifies his or her role.
- Situation: The speaker identifies the purpose of the communication.
- Background: The speaker provides a summary of the patient’s background.
- Assessment: The speaker passes on the recent assessments of the patient.
- Recommendation: The speaker states any recommendation about the patient’s care.
- Repeat: The speaker repeats any important information and allows time for the receiver to ask questions.

Various forms of the ISBARR framework have been used for handover reports in nursing (Enlow et al., 2010; Hohenhaus, Powell, & Hohenhaus, 2006; Kesten, 2010; National Clinical Guideline Committee, 2014), other health care professions (Finnigan, Marshall, & Flanagan 2010; Thompson et al., 2011), and other professions, such as aviation (Compton et al., 2012).

Purpose and Significance of the Study

More research is needed on how to decrease students’ perceived anxiety and confidence levels associated with handover reports. The purpose of the current study was to identify whether there was a relationship between learning the ISBARR framework and students’ perceived confidence and anxiety levels associated with a handover report. Learning the ISBARR framework may help to address nursing students’ perceived anxiety and confidence levels associated with limiting their handover reports. Anxiety and low confidence have been known to poorly affect an individual’s performance (Parmelee, 2014; Zargarzadeh & Shirazi, 2014). Thus, finding ways to help eliminate anxiety and increase confidence levels associated with handover reports may, in turn, aid in enhancing the students’ handover reporting.

Method

This mixed-method study was conducted on a group of Canadian nursing students, using a pre- and posttest design. Both the pre- and posttest data were collected with the Competitive State Anxiety Inventory-2 (CSAI-2) tool. Past studies have used a pre- and posttest design on a group of participants with the CSAI-2 tool (Arruda et al., 2014; Hazelt, Cotterill, & Hill, 2014; Lagos et al., 2011; Truelove, 2014). Because the sample was small, three qualitative posttest questions were used to compare the quantitative data to strengthen the study. A null hypothesis approach was used to explore whether learning the ISBARR framework had a relationship with nursing students’ perceived confidence and anxiety levels associated with handover reports. The independent variable was learning the ISBARR framework. The approach used to teach the students the ISBARR framework was one that was being used by the local nursing program. The teaching approach involved the students learning the framework, observing an example of the framework being used, and applying the framework to a case scenario. The current study did not evaluate the teaching method; it assessed the perceived anxiety and confidence levels. Thus, the dependant variables were the perceived anxiety levels (somatic and cognitive) and the perceived confidence levels.

Research Questions

The first research question explored whether a difference existed in the nursing students’ perceived somatic and cognitive anxiety levels associated with handover reports before and after learning the ISBARR framework. The second research question explored whether a difference existed in nursing students’ perceived confidence levels associated with handover reports before and after learning the ISBARR framework. The three qualitative questions that were added with the CSAI-2 postsurvey were:

- Did you learn how to give effective handover reports from the ISBARR framework? Explain.
- Did you feel more or less confident about delivering handover reports after learning the ISBARR framework? Explain.
- Did you feel more or less anxious about giving handover reports after learning the ISBARR framework? Explain.

Instrument

The CSAI-2 survey used to collect data was created by Martens, Vealey, and Burton in 1990. It consisted of 27 inventory items that measured an individual’s existing perceived anxiety and confidence levels. The survey had three subsections (confidence levels, somatic anxiety levels, and cognitive anxiety levels), each with nine inventory items (Martens et al., 1990). Each item in the entire CSAI-2 survey could be answered on a scale ranging from 1 = not at all, 2 = somewhat, 3 = moderately so, and 4 = very much so (Martens et al., 1990). The CSAI-2 survey was fitting to examine the relationship between the variables for the current study because it (a) had been used in prior studies for examining the influence of an intervention on participants’ perceived anxiety and confidence levels (Alwan, Zakaria, Rahin, Hamid, & Fuad, 2013; Iusca & Dafinoiu, 2012; Truelove, 2014); (b) had shown reliability and validity (Esfahani & Gheze Soflu, 2010; Fernandez, Nunes, Raposo, Fernandez, & Brustad, 2013; Iusca & Dafinoiu, 2012); and (c) had been used to assess the perceived anxiety and confidence levels on a variety of topics, such as school performance (Filippou, Bebetos, Vernadakis, Zetou, & Derri, 2014), examination performance.
Results
The paired t test revealed a statistically significant difference in the perceived somatic anxiety levels (p = .001 and Glass’ delta = 0.81), indicating that the ISBARR training had a strong effect in reducing students’ perceived somatic anxiety. Thus, the first null hypothesis for question one was rejected; a statistically significant difference was noted in the nursing students’ perceived somatic anxiety levels associated with handover reports before and after learning the ISBARR framework.

The paired t tests for the pre- and posttest perceived cognitive anxiety summative scale scores were p = .001 and Glass’ delta = 0.40, indicating that the ISBARR framework had a medium effect in reducing students’ perceived cognitive anxiety. Thus, the second null hypothesis for question one was rejected; a statistically significant difference was noted in the nursing students’ perceived cognitive anxiety levels associated with handover reports before and after learning the ISBARR framework.

The paired t test revealed a statistically significant difference in the perceived confidence levels (p = .01 and Glass’ delta = 0.52), indicating that the ISBARR training had a medium effect on increasing students’ perceived confidence. Thus, the null hypothesis for question two was rejected; a statistically significant difference was noted in the nursing students’ perceived confidence levels associated with handover reports before and after learning the ISBARR framework.

The results of the qualitative data matched the quantitative data. Qualitative results indicated learning the ISBARR was perceived to have a beneficial relationship that lowered the participants’ perceived anxiety and increased their perceived confidence levels associated with delivering handover reports. After learning the framework, one participant claimed to being “more prepared to give/receive report,” and another stated, “I feel less anxious because it is more clear to me now.”

Discussion
The literature suggests that students’ handover reports were hindered by high anxiety and low confidence levels (Collins, 2014; Solomon & Salhi, 2011). Although those results did not test whether learning the ISBARR had an effect on the performance of handovers, the results of the current study indicated that the participants believed they experienced anxiety and lacked confidence associated with handover reports. Results indicated that participants perceived that they had both anxiety and confidence about handover reports before and after learning the ISBARR, but they perceived that they had a lower anxiety and higher confidence levels after learning the ISBARR framework. Participants indicated they believed learning the ISBARR framework helped them to feel less anxious and more confident because it helped to eliminate the confusion around handover report expectations. This finding is in agreement with the literature that suggested one of reasons for poor handover communication is the lack of consistency in what is being taught (Curtis et al., 2011). The literature indicates that a standardized framework, such as the ISBARR, would help to clarify handover reporting expectations (Enlow et al., 2010; Lyerla & Barry, 2014; National Clinical Guideline Committee, 2014). The results of the current study suggest that learning the ISBARR framework may have assisted the partici-
plicants to perceive that they gained a mental picture of giving handover reports, as there were weak correlations between the presurvey’s measurements of the participants’ mental picture of reaching a goal with the other confidence variables, but it directly corresponded with some of the other confidence variables in the postsurvey. The participants’ responses to the perceived somatic anxiety questions established poor reliability, which raised the question of whether the participants were uncomfortable with physical states of anxiety.

Recommendations for Further Study

This study added to the body of knowledge on students’ anxiety and confidence levels associated with handover reports, but the small sample size limits generalization of the results. A meta-analysis, comparing the results from similar studies, would be of value to determine whether any results can be generalized. A similar longitudinal study would be valuable to examine whether the participants believe that learning the ISBARR helps them to feel less anxious and more confident about handover reports in clinical practice. More research is needed to explore whether the ISBARR framework helps to improve nursing students’ handover communication skills or performance.

Conclusion

Nurses need to be able to deliver effective handover reports. Nursing education must find effective ways to help prepare students to become competent with handover reports. Although more research is needed, the results of the current study suggest that teaching the ISBARR framework may help to decrease students’ anxiety and improve their confidence levels associated with handover report. Helping students to feel less anxious and more confident can help to prepare them to give competent handover reports.

References


National Clinical Guideline Committee. (2014). *National clinical guideline for the management of”


