

**Implementing Structured Handoff During  
Nursing Shift Report in a Small Psychiatric Hospital**

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### Abstract

**Problem & Purpose:** In a small psychiatric hospital, nursing leadership is concerned about the inconsistent, disjointed nursing shift report process that contributed to shift reports that are often lacking important information. Poor communication of important patient information contributes to adverse patient safety events, which impacts patient outcomes. The purpose of this quality improvement initiative was to implement a structured handoff format, ISBAR framework, to be used during verbal nursing shift report, as well as a similarly structured format to be used for nursing shift note documentation in the electronic health record. **Methods:** Nurses were trained to use the structured handoff format for both verbal nursing shift report and for documenting nursing shift notes. The training was assigned to 49 total nurses. Posters outlining the information to be detailed under each category within the ISBAR framework, and written templates, were made available in each nurse work area. Weekly audits using convenience sampling were completed to determine the percentage verbal shift reports and written shift notes that followed the structured handoff format with 100% compliance. **Results:** Nurse buy-in and uptake of the structured handoff format was minimal. Rate of 100% compliance with the structured handoff format for both shift report and shift notes was 0% for the first 4 weeks of implementation. The highest utilization for shift report was 40% in Week 6, after which utilization trended downward for the remaining 8 weeks, with rate of compliance returning to 0% in the last week. Utilization for shift notes trended upward over the course of the initiative, with a peak compliance rate of 52% in Week 13. **Conclusions:** The impact of strongly ingrained cultural norms cannot be underestimated when undertaking a quality improvement initiative at any institution, and efforts beyond nurse training and making resources available must be used to incentivize uptake of any process change.

## **Implementing Structured Handoff During Nursing Shift Report in a Small Psychiatric Hospital**

At a small psychiatric inpatient hospital, nurse managers and the Chief Nursing Officer presented concerns that non-standardized and disorganized shift report contributes to patient safety events, as a result of important information not being properly communicated during nursing shift report. While changes have been made to printed patient information provided during handover in the past two years, in hopes of improving the transfer of information during shift report, the organization continues to see patient safety events related to deficiencies in shift-to-shift communication. The root causes, and contributing sub-causes, that contribute to poor or varying quality of communication of patient safety information during inpatient nursing shift report at this site are presented in Figure 1. Key causes include non-standardized handover training or procedure, inconsistent handover style, stress related to handovers, and interruptions during shift report (Kim et al., 2022; The Joint Commission, 2017). Site-specific causes include nurses working differing shift lengths and only one nurse participating in shift report, even if two or more nurses perform patient assessments during the shift.

Multiple studies aimed at improving the quality of shift report in the psychiatric setting, and improving patient safety across multiple disciplines, have focused on the standardization of the format of shift report, using either SBAR (Situation-Background-Assessment-Recommendation) or ISBAR (Introduction-Situation-Background-Assessment-Recommendation) as a basis for a shift report tool (Abela-Dimech & Vuksic, 2018; Chien et al., 2022; Cowan et al., 2018; Vallabhaneni et al., 2022). The purpose of this quality improvement project was to implement the structured handoff tool during delivery of verbal nursing shift report and for nursing shift note documentation in the electronic health record (EHR), to improve

the accuracy and quality of communication and improve patient safety outcomes. Based on the evidence, the proposed solution to address the project site's concerns regarding poor or varying quality of communication of patient safety information during inpatient nursing shift report was to implement a structured handoff tool for use during verbal report that utilizes the ISBAR framework.

### **Available Knowledge**

Nursing shift report in the inpatient setting, across disciplines, is essential for communication of key patient safety information during the transfer of care. Poor communication of information during this period impacts patient safety (Abela-Dimech & Vuksic, 2018; Bressan et al., 2020; Cho et al., 2022; Cowan et al., 2018; Vallabhaneni et al., 2022) and contributes to patient adverse events (Chien et al., 2022; Mardis et al., 2017; Vallabhaneni et al., 2022). In the inpatient mental health setting, the format of nursing shift report is often not standardized, leading to disorganized, disjointed, inconsistent, and even inaccurate communication (Abela-Dimech & Vuksic, 2018; Cowan et al., 2018; Vallabhaneni et al., 2022).

A review of available literature found nine studies that addressed this particular issue. Müller et al. (2018) concluded that since past evidence has shown that communication breakdown can lead to adverse patient events, then it should follow that by remediating those communication breakdowns (in the form of implementing the SBAR framework into communication), patient outcomes should then improve. Similarly, Bukoh & Siah (2020) concluded that while implementation of structured handoff led to an overall improvement in patient outcomes that cannot be ignored, the pooled findings of their evidence review were not statistically significant and there was potential for bias and mitigating effects in all 9 studies.

Both studies found that evidence for improving patient safety through implementing structured handoff is weak to moderate, but Bukoh & Siah (2020) found that the evidence is stronger and has more robust implications for the effectiveness of implementing structured handoff on the quality of communication and accuracy of information transfer.

Abela-Dimech & Vuksic (2018) concluded that implementing a reference card improved the use of SBAR format during nursing report and improved the quality of information transfer, and Bressan et al. (2020) concluded that standardized formats for nursing handoff can help improve communication quality and reduce communication breakdown, most likely improving patient safety as a result. Cho et al. (2022) concluded that implementing an intervention to improve the quality of nursing shift report leads to improved nurse perception of the information reported and improved patient safety outcomes. Cowan et al. (2018) developed a shift report guideline for the mental health setting based on the ISBAR framework to promote effective communication, based on conclusions regarding what information was consistently lacking during shift report. Liu et al. (2022) concluded that higher handover quality would lead to more positive safety behaviors of nurses, thereby positively impacting patient safety. Mardis et al. (2017) concluded that while improving shift handoff has the potential to improve patient outcomes, more research is needed to confirm these effects. Vallabhaneni et al. (2022) concluded that implementing the SBAR format to shift report in a psychiatric setting is a well-accepted change that improves the structure and efficiency of communication.

Overall, the evidence indicates that the quality of communication during nursing shift report in the psychiatric setting can impact nurses' safety behavior, which can subsequently impact patient safety outcomes. Measures to improve the quality of communication during shift report in the psychiatric setting typically involve the introduction of a standardized format, such

as ISBAR or SBAR. There is strong evidence to show that these standardized formats improve the quality of communication during shift reports across all nursing disciplines, including psychiatric nursing. The evidence also supports a link between the quality of shift report and patient safety outcomes, and shows that by improving the former, the latter can also be improved. A detailed review of the evidence can be found in Appendix A.

### **Rationale**

In developing this quality improvement project, an implementation framework was selected that suited the proposed intervention as well as the limitations of the project site. Adaptation of the Conceptual Framework of Complex Innovation Implementation (Helfrich et al., 2007) to this specific quality improvement initiative provided a justification for the implementation plan that was developed based on the available evidence. This framework can be used to capture key elements of implementation of new initiatives, and explain observed discrepancies in implementation effectiveness (Helfrich et al., 2007). A version of the Conceptual Framework of Complex Innovation Implementation diagram, modified for this specific project, can be seen in Figure 2. Based on this adapted framework, a rationale for continuing the project was developed.

The proposed solution had support from management, as evidenced by the fact that management identified shift report as a targeted area for improvement to begin with. Resources were made available to support the implementation of the project, as evidenced by the site's acceptance of the project and the involvement of the Chief Nursing Officer, who had the ability and authority to introduce new procedures to the staff. Being a psychiatric hospital, the organization's values and mission aligned with an intervention that had the potential to improve quality of patient care, and a site champion was identified to help promote the intervention

among nursing staff and garner support during the implementation phase. All of these factors influenced the favorable implementation climate, as evidenced by the fact that the need for a change to the process of delivering shift report was identified by the organization as a priority, which potentially positively impacted the effectiveness of implementing the proposed solution.

## **Methods**

### **Context**

The project site is a 59-bed inpatient psychiatric hospital with a relatively small nursing staff. The hospital has four units, and serves patients ages 5 and up, segregated by age. Depending on unit census, each unit is staffed with a charge nurse and a medication nurse, and the larger units may have an additional unit nurse available, or the shift may have a float nurse who assists with all units. There are unlicensed support staff present on the units as well, typically three to five per unit depending on the unit census and acuity. The shifts are typically eight hours long, though some nurses choose to work 12-hour shifts. Site structural factors surrounding shift report were assessed and it was found that report was recorded on voice recorders; nurses tried to limit their full unit report to under 15 minutes total; and no standardized format for shift report left the door open for redundancy or excessive information to be included, or for essential information to be missed. Evaluation of site processes surrounding shift report found that a printout of patient background information was used as the basis of shift report; nurses communicated background information from the printout and then gave a summary of patient's status, behavior, and other relevant information from the shift; each nurse determined what they felt was important to include in report; shift note documentation in the EHR was free text; and verbal report reflected shift note content.

**Intervention**

To address the site's identified need for an improved process for nursing shift report, the nurses were required to follow a structured ISBAR format while delivering verbal, recorded shift handoff. The format designed for this project was based on the findings and guideline developed by Cowan et al. (2018) and included items related to each domain of the ISBAR framework.

Second, the nurses were required to follow a structured shift note format for shift note documentation in the EHR, addressing the Assessment and Recommendation domains of the ISBAR framework. The main process goals for this project were that at the end of the 14-week intervention period, 100% of verbal, recorded shift reports would follow the structured checklist format with 100% compliance, and 100% of shift note documentation in the EHR would follow the structured checklist format with 100% compliance. The main structural goal for this project was that the total length of report for the entire unit would remain under 20 minutes in length for 100% of verbal, recorded reports. To support the achievement of these goals, all 49 staff nurses were assigned a required online training on the use of the structured checklist, the goals of the quality improvement initiative, and the importance of clear communication during shift report. Posters providing a clear list of information to be included in verbal reports were posted in each nurses' station, and templates for both verbal report and written shift notes were also provided, with the hope of reducing time spent during documentation.

**Measures**

To address the process goals, both verbal reports and shift notes were audited weekly using convenience sampling for content, to determine how effectively the intervention altered the current process. The starting point for auditing individual patient notes and reports was randomly selected each week, and only the first 50 reports and notes were audited. The audits consisted of



marking ‘yes’ or ‘no’ regarding whether the audited report or shift note followed the associated structured checklist with 100% compliance. The number of both audited verbal reports and audited shift notes that followed the structured checklist with 100% compliance was compared to the total number of both verbal reports audited and shift notes audited, and compliance rates were then calculated. To address the structural goal, the total length of sampled verbal, recorded report for an entire unit was audited to determine what percentage of audited reports remained under 20 minutes in total length. These audit tools can be seen in Appendices B, C, and D. Data was electronically entered by the Project Lead directly into a VPN-protected HIPAA-compliant server through the University of Maryland School of Medicine called REDCap. A side-by-side screen method was used during data entry and no materials containing patient data were printed or written by hand. No patient or nurse identifiers were recorded because the data being collected was not patient or nurse specific. The CNO communicated structural or contextual changes within the organization that arose over the course of the project.

### **Ethics**

The project was designated as Non-Human Subjects Research by the Human Research Protections Office at University of Maryland and leadership at the site signed off for the project to proceed. The Project Lead also signed a Non-Disclosure Agreement regarding any patient information heard or viewed during the course of auditing verbal reports and shift notes. The data collection methods ensured that confidentiality and privacy were maintained. Regarding bias, equity, and inclusion, data was not included or excluded based on patient characteristics, or characteristics of the nurse responsible for the documentation. The data represents the patient population that the site served between September and December 2023.

## Results

At this project site, nurse management identified disorganized nursing shift report as a weak point in shift-to-shift communication. A plan was developed to address this weak area through implementation of a structured format for both verbal shift report and for written shift note documentation in the EHR. In the pre-implementation period, the rate of recorded, individual patient shift reports that followed this structured format with 100% compliance was zero. Nursing shift notes for individual patients followed the same pattern. This continued for the first four weeks of the implementation period. Of note during this time period was the transition of the existing nurse manager to the role of Chief Nursing Officer, leaving the position of nurse manager empty for those four weeks. In the fifth week of the implementation period, the position was filled, and the new nurse manager was informed of the project purpose, goals, and implementation tactics, and expressed their support and willingness to promote adherence among the nursing staff. Subsequently, utilization of the report checklist with 100% compliance increased to a rate of 24% of reports in Week 5, and 40% of reports in Week 6. Utilization of the shift note checklist with 100% compliance increased to a rate of 6% of shift notes in Week 5, and 26% of shift notes in Week 6.

At this time, utilization rates of each checklist began to diverge. Utilization of the shift note checklist with 100% compliance continued to trend upward, with a peak utilization rate of 52% of shift notes in Week 13, and a slight drop to 44% of shift notes in the final week of the implementation period, Week 14. Disparately, utilization of the report checklist with 100% compliance trended downward again, dropping to a utilization rate of 12% of reports in Week 9, 20% of reports in Week 10, 12% of reports in Week 11, and 10% of reports in Week 12.

Utilization spiked to a rate of 30% of reports in Week 13, and then dropped to a rate of 0% in Week 14.

The median rate of compliance for maintaining a total recorded unit report length under 20 minutes was 85.4% of unit reports, with rates remaining between 100% and the median for Weeks 1 through 4, as well as Weeks 12 through 14. In Week 5, the compliance rate dropped to 80%, which correlates with the initial uptake of compliance with the report checklist. The lowest compliance rate for unit report length, 62.5%, occurred in Week 6, which correlates with the highest rate of 100% compliance with the report checklist. In Weeks 7 through 11, the compliance rate was constant at 83.3%, just below the median. Of note, differing numbers of total unit reports were analyzed each week to achieve an audit count of 50 individual patient shift reports, with a low of five total unit reports and a high of eight total unit reports. A visual representation of the audit results can be seen in the Run Charts presented in Figure 3, Figure 4, and Figure 5, respectively.

One of the primary contextual factors impacting the results of this project was the fact that audits were completed on the same day of each week. Because verbal reports were recorded, nursing staff were informed to save reports from the previous day on the recording devices, so that they could be audited the following day. Most of the audited reports were recorded by the same subset of nurses within the organization, because those were the nurses that typically worked that day of the week. The reports that followed the checklist with 100% compliance were almost all recorded by the same individual nurse each week of the implementation phase. Ultimately, the processes of delivering verbal shift report and documenting shift notes in the EHR did not change significantly as compared to the process that existed prior to implementation

of the intervention, and the goals of 100% compliance with the checklists was not reached for reports nor shift notes.

### **Discussion**

The results of this quality improvement project primarily indicate the level of effectiveness of the strategies that were employed to implement the intervention and promote compliance. Despite the initial optimism and support from nurse leadership at the project site, integration of the project initiative into the standard operating procedure was minimal at best. Nurse leadership was unable to make the training mandatory for staff nurses, and because of this, the training was not completed by all of the nurses to whom it was assigned. Reminder emails were sent to all staff nurses to complete the training, but were only partially effective. The existence and purpose of the quality improvement project were introduced to nursing staff at the facility's quarterly safety meeting directly before the initiation of the implementation phase; however, attendance at the safety meetings is not mandatory for employees. During the implementation phase, adherence to the structured checklists was not mandatory for nurses. Nurse leadership viewed the project as an experiment to determine whether implementing structured report was even a possibility at this hospital, so it was not feasible to make any element of participation strictly required of the nursing staff.

The impact of institutional culture and resistance to change at this project site was underestimated during the planning phase of this project. Barring making participation in the quality improvement initiative mandatory, the most effective strategies to encourage uptake were to reinforce the importance of clear, consistent transfer of information between shifts, and to provide visual guides to make utilization of the checklists as convenient as possible. While the latter was done through posters and templates in the nurses' stations, emphasis on the

convenience of using those aids to engender minimal disruption to the existing workflow was not consistently applied. The purpose of the project being to improve the quality of patient care was not properly emphasized in a way that would alleviate the suggestion that the project was being implemented to ‘punish’ nurses for poor report quality. The project site is a small facility with a strongly ingrained culture and many long-term employees who have been with the organization for several years and who are fully immersed in the processes of the existing workflow. Because of this, uptake of the intervention was limited despite the availability of resources to simplify the process.

### **Conclusions**

The findings from this project indicate the resistance to change that can be found in many institutions. This resistance may be one of the most stubborn barriers that organizations, and particularly nurse leaders, will face as nursing practice advances and new evidence-based practice is developed in the coming years. In hopes of sustaining the fundamental element of this quality improvement project—improving the quality of patient care—the project site will retain ownership of all resources, including the training, posters, and templates, to utilize as the administration chooses moving forward. As the site transitions to new electronic health record vendor in the coming months, elements of the framework developed for this project may be implemented into the structure of documentation and verbal report in ways that align with the utility of the features available with the new technology. Nurse leadership has the opportunity to capitalize on the transition to the new EHR vendor and restructure the entire process of delivering nursing shift report in a way that reflects the clarity and consistency of information transfer that this project was intended to produce.

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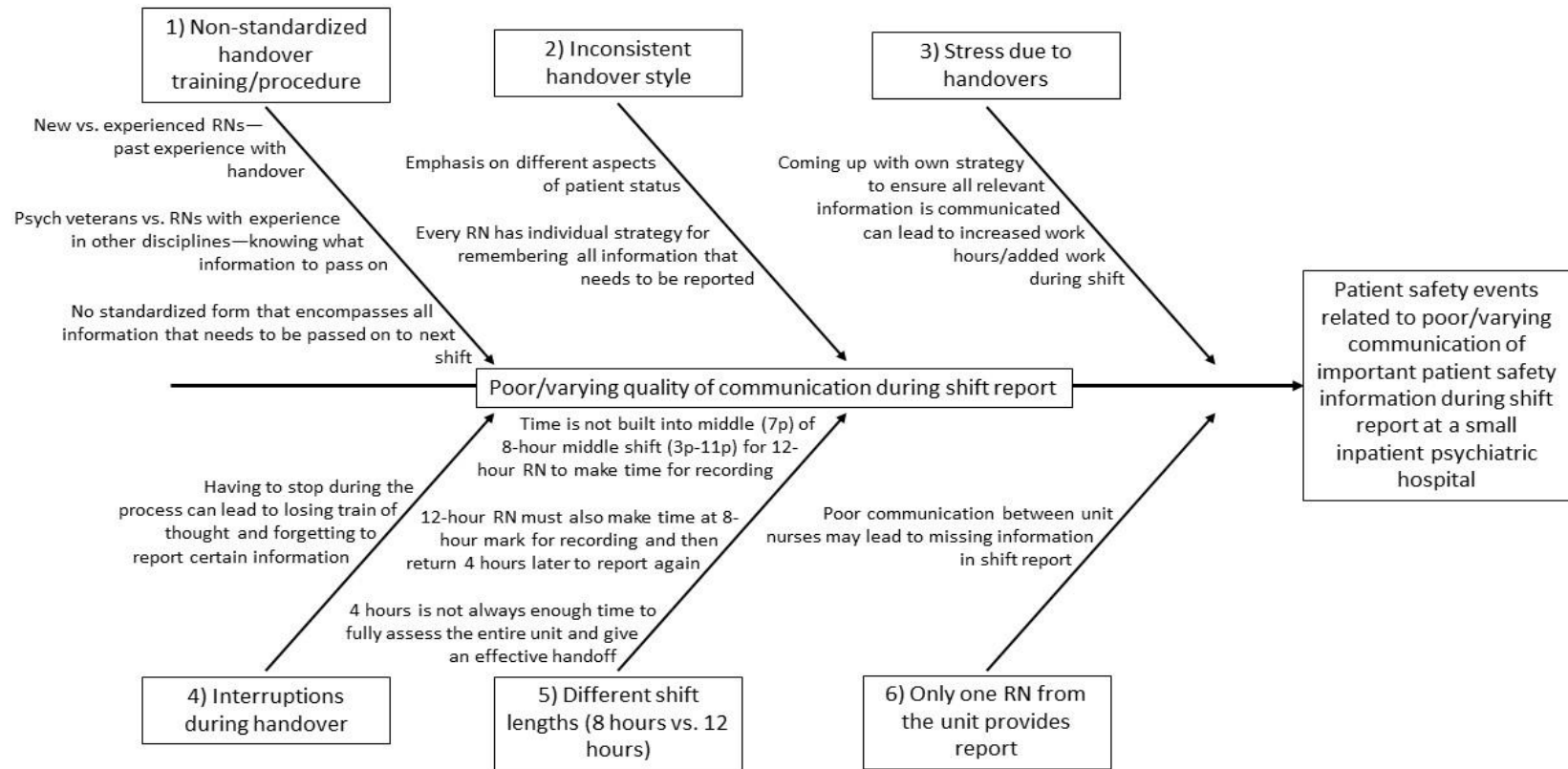
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Figures

Figure 1

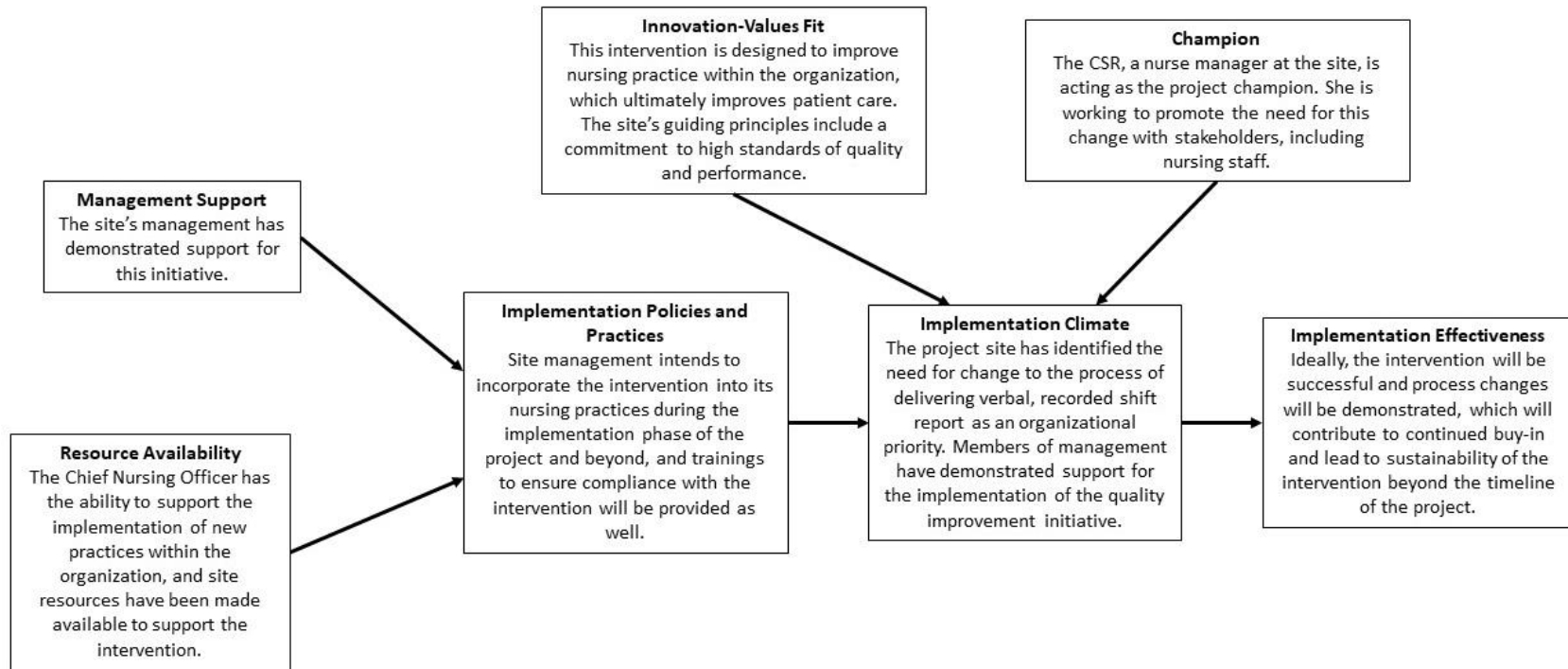
*Causes of Poor or Varying Communication of Patient Safety Information During Inpatient Nursing Shift Report*





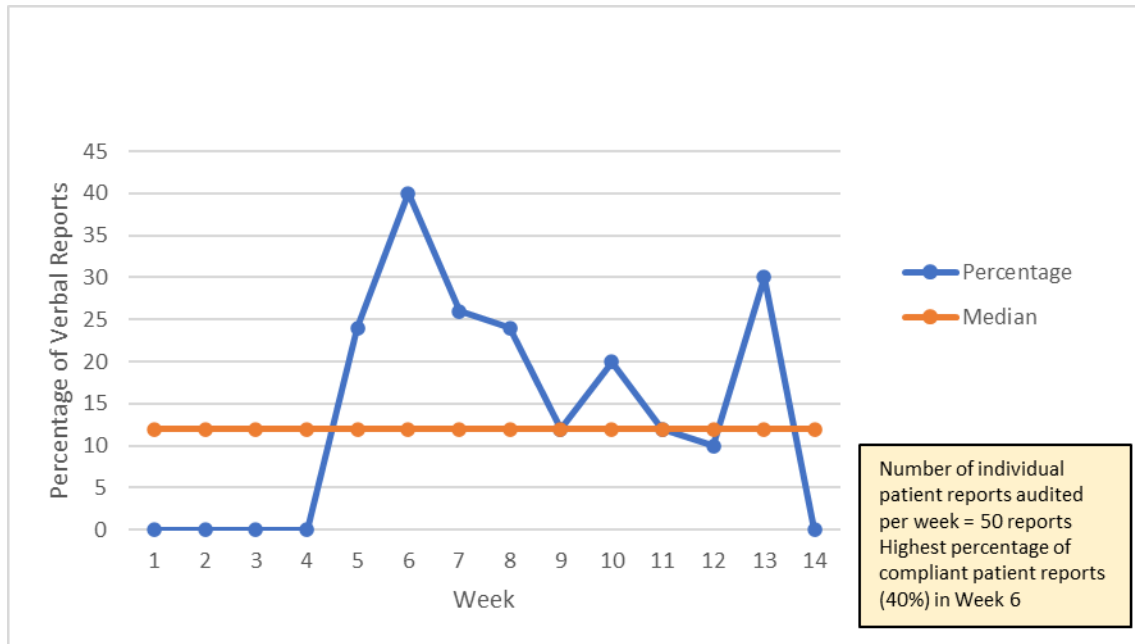
**Figure 2**

*Modified Conceptual Framework of Complex Innovation Implementation*



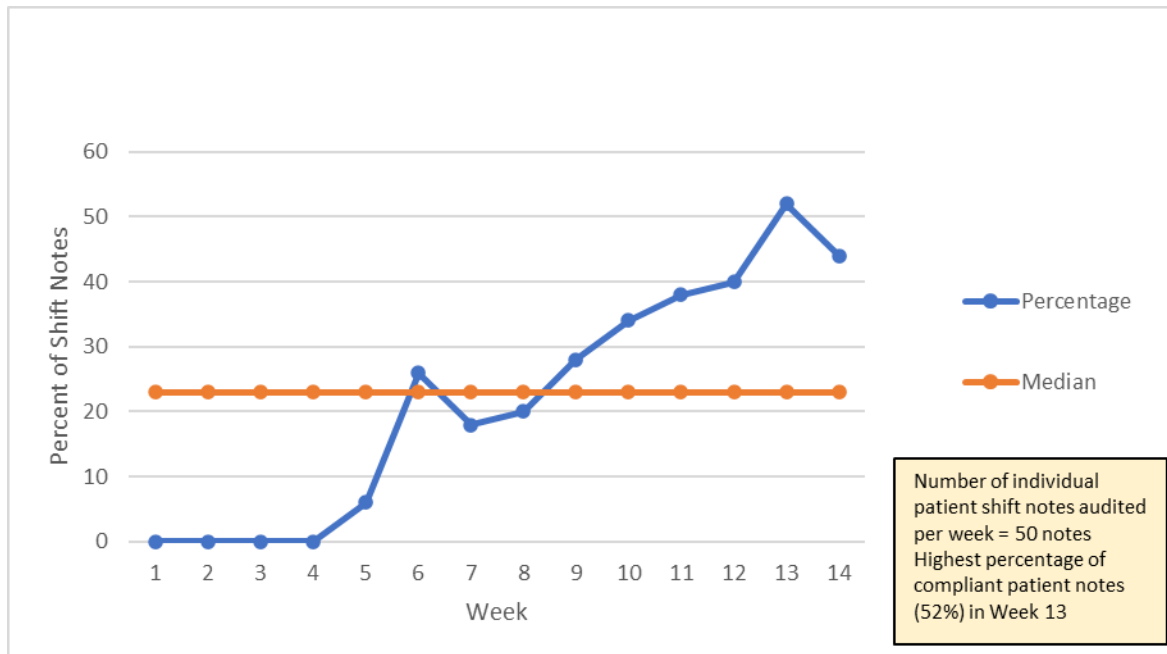
**Figure 3**

*Percentage of Verbal Reports Following Structured Handoff Checklist with 100% Compliance by Week*



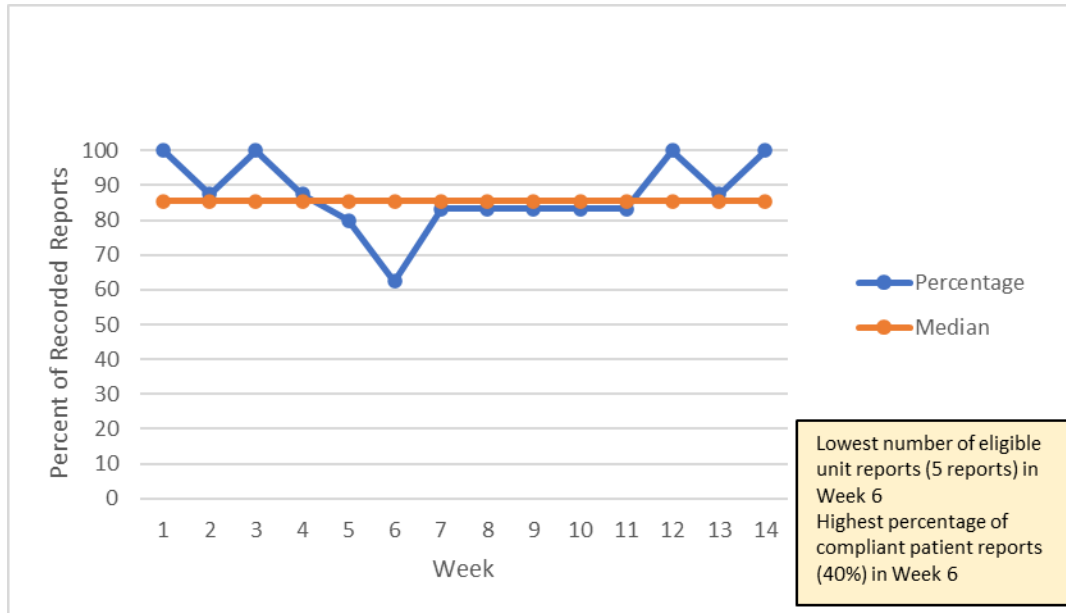
**Figure 4**

*Percentage of Shift Notes Following Structured Handoff Checklist with 100% Compliance by Week*



**Figure 5**

*Percentage of Recorded Reports Under 20 Minutes in Total Length by Week*



Appendices

Appendix A

Evidence Review Table

Citation #1: <a href="#">Abela-Dimech &amp; Vuksic, 2018</a>					Level: III
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results/Conclusions
The purpose of this study was to integrate the SBAR (Situation-Background-Assessment-Recommendation) format into nursing care handover in an inpatient psychiatric setting, and to ensure that the information communicated during handoff report was adequate to bolster staff's confidence in providing safe patient care.	The authors used a Plan-Do-Study-Act framework to implement an intervention (resource building and staff education on use of SBAR in the psychiatric setting) with the goal of improving specific outcomes (improve effectiveness of handoff report, improve staff satisfaction with handoff report, and improve safety of patients and staff). Pre- and post-implementation surveys and audits were completed to measure outcomes before and after staff education. While this was a quality improvement project (Level V), the evidence could qualify as qualitative, quasi-experimental (Level III) based on the pre- and post-intervention data	The study was conducted in an urban psychiatric hospital in Ontario, Canada, across 27 inpatient psychiatric units, with an approximate total of 481 full- and part-time Registered Nurses and Registered Practical Nurses. The units serve a total of approximately 498 patients at capacity.	A team of nurse educators developed an SBAR framework specific to the inpatient psychiatric setting, and used this framework to create a Quick Reference Card (QRC). Staff were introduced to the QRCs by two volunteer nurses over the course of 2 months. Then, the team of nurse educators conducted training on each unit on the use of SBAR using educational scenarios over the next 2 months. Finally, education about the SBAR format was provided during the organization's safety day, as well as during orientation for newly-hired staff.	First, the authors identified incident review recommendations that identified poor communication as a contributing element in patient safety events, with the goal of reducing these events. Second, staff were invited to complete an anonymous online survey with questions regarding satisfaction with handoff content, and the quality of information received during handoff. This survey was completed again post-intervention, with the goal of improving both staff satisfaction and quality of communication. Third, audits were conducted during handoff pre- and post-intervention to gauge the use of SBAR format and the quality of the information being	Incident review recommendations that involved communication decreased from 27 total pre-intervention, with 7 being specifically related to poor communication during a transition of care, to 7 total post-intervention, with only 2 being specifically related to poor communication during a transition of care. Based on the staff surveys, while the use of SBAR increased dramatically, staff satisfaction and perceived quality of information only increased marginally. The audits also showed that the use of SBAR increased significantly, and the quality of the information did improve.

	collection and the examination of the impact of a specific intervention on specific outcomes.			reported, with the goal of improving both the use of the SBAR format and the quality of the information being reported.	
Citation #2: <a href="#">Bressan et al., 2020</a>				Level: III	
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results/Conclusions
The purpose of this review was to synthesize and summarize the available evidence regarding nursing handoff and patient safety in order to provide recommendations for future study designs intended to improve patient safety through implementation of improved nursing handoff.	The authors conducted an umbrella review of systematic reviews of varying levels of evidence, with some systematic reviews being Level I (reviews of only RCTs), some being Level II, and some being Level III. Because the umbrella review contains Level III systematic reviews, it is considered Level III evidence.	The authors reviewed 17 systematic reviews of primary studies conducted across multiple nursing disciplines, in multiple clinical settings, in multiple countries. The primary “population” was nurses.	The authors found that systematic reviews that focused on improving nursing handoff to improve patient safety consistently recommended the use of standardized report formats, and the implementation of bedside reporting.	The authors found that systematic reviews that focused on improving nursing handoff to improve patient safety consistently found that improved nursing handoff reduced rates of professional errors, patient adverse events, and near misses.	The authors conclude that standardized formats for nursing handoff can help improve communication quality and reduce communication breakdown, thereby improving patient safety.

Citation #3: <a href="#">Cho et al., 2022</a>					Level: III
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results/Conclusions
<p>The purpose of this review was to analyze and measure the effects of quality improvement projects focused on improving nursing shift report.</p>	<p>The authors conducted a systematic review (Level III) of quality improvement projects to determine the effects of those projects on improving the process and quality of nursing handover. The majority (19) of the quality improvement projects used pre- and post-test designs, while 3 used only post-test designs.</p>	<p>The population of interest in this systematic review was nurses. The authors reviewed 22 quality improvement projects conducted across multiple nursing disciplines and multiple clinical settings.</p>	<p>Six of the projects applied standardized communication tools, five implemented bedside report, eight combined implementation of the SBAR format with bedside report, and three implemented educational programs to promote compliance with the JBI PACES (Joanna Briggs Institute Practical Application of Clinical Evidence System) format during shift report.</p>	<p>The primary outcomes measured by the projects were nursing satisfaction and perception. Six studies also measured patient safety outcomes via numbers of patient safety incidents.</p>	<p>The authors concluded that implementing an intervention to improve the quality of nursing shift report leads to improved nurse perception of the information reported, improved nurse satisfaction with the information reported, and improved patient safety outcomes as measured by decreased rates of patient safety events.</p>

Citation #4: <a href="#">Cowan et al., 2018</a>					Level: III
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results/Conclusions
<p>The purpose of this study was to use qualitative content analysis to develop a guideline for a structured nursing handover in the mental health setting.</p>	<p>The authors described this as a qualitative, descriptive study (Level III). Data was collected through observation of shift handover, nurse focus groups, and patient interviews, and analyzed using both inductive and deductive methods. This was an observational study with no intervention.</p>	<p>The study was conducted at two sites; one was a 24-bed urban mental health unit in Sydney, Australia, and the other was a 12-bed mental health unit in New South Wales, Australia. The populations of interest were both nurses performing handovers (observations and focus groups), as well as patients using services at each site (client interviews).</p>	<p>There was no intervention employed in this study. Ten handovers were observed at each location, across different shifts, and scored for content. Four staff focus groups were held at each site, with a focus on learning staff's perceptions on the quality of shift handover, and a total of 36 nurses across both sites attended. Eight total patients were interviewed across both sites, to determine what information patients feel is most important to be communicated during shift change. This information was then synthesized to develop a guideline for structured shift handover in the mental health setting.</p>	<p>The authors aimed to collect data regarding the content, structure, purpose, efficiency, and leadership displayed during shift report. Since there was no intervention implemented, the authors simply collected data and used it to inform the guidelines that they developed.</p>	<p>The authors developed a shift report guideline for the mental health setting based on the ISBAR framework, with distinctions made for content specific to the inpatient psychiatric setting. The authors recommended a concise verbal report with a written component for quick reference to information that otherwise is stored in the electronic health record. They also recommended a leadership element, with one person designated to provide handover report and assign tasks for the upcoming shift, to promote efficiency and purpose.</p>



Citation #5: <a href="#">Liu et al., 2022</a>					Level: III
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results/Conclusions
<p>The authors had three goals with this study: 1) to determine psychiatric nurses' safety behaviors; 2) to investigate the relationships between quality of shift report, nurses' risk perception, and nurses' safety behaviors; and 3) to investigate any mediating effect that risk perception may have on the relationship between handover quality and safety behaviors.</p>	<p>The authors conducted a correlational, cross-sectional study (Level III) examining the relationship between psychiatric nurses' risk perception based on the quality of shift report, and the nurses' subsequent safety behaviors. This was an observational study with no intervention.</p>	<p>A total of 206 psychiatric nurses in a psychiatric hospital in Shandong Province, China, were recruited for this study.</p>	<p>There was no intervention employed in this study. Data was collected online, via self-rated questionnaires—a safety behavior questionnaire, a handover evaluation scale, and a risk perception questionnaire.</p>	<p>The primary factors being assessed were the level of nurses' safety behaviors, the quality of the handover process and information being communicated during shift report, and the level of nurses' risk perception regarding the patients they would be responsible for during their upcoming shift. Since there was no intervention, the authors collected this data and analyzed it using statistical methods to determine associations and mediating effects between the three factors.</p>	<p>The authors found that on a scale of 12 to 60, with 60 indicating always engaging in safety behaviors, nurses scored an average of 48 for safety behaviors; on a scale of 7 to 91, with 91 being the highest, nurses rated handover quality to be 76 on average; and on a scale of 28 to 140, with 140 indicating a greater sense of risk perception, nurses scored an average of 77. Interestingly, the authors found that risk perception and safety behaviors, and risk perception and handover quality were negatively related, while handover quality and safety behaviors were positively related, and that risk perception had a partial mediating effect between handover quality and safety behaviors. The authors concluded that higher handover quality would lead to more positive safety behaviors of nurses, thereby positively impacting patient safety.</p>

Citation #6: <a href="#">Mardis et al., 2017</a>					Level: III
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results/Conclusions
<p>The purpose of this study was to review existing evidence regarding the effects of nursing shift report on patient outcomes.</p>	<p>The authors conducted a systematic review of both quantitative and qualitative research (Level III).</p>	<p>The 21 studies that the authors reviewed included nurses, physicians, nursing assistants, across multiple types of inpatient hospital units.</p>	<p>Among interventions implemented to improve the quality of shift report, 7 studies employed standardized handoff mnemonics (e.g. SBAR), 8 bundled interventions related to improving handoff with other related interventions, and 15 included an education element in the handoff intervention.</p>	<p>The authors reviewed studies that measured falls, hospital length of stay, mortality, medical emergency team calls, medication errors or adverse events, reportable incidents or sentinel events, procedural complications, ICU length of stay, pressure ulcers, nosocomial infections, weekend discharges, and medical errors.</p>	<p>The authors concluded that although improvements in patient outcomes can be seen in many of the studies reviewed, the effects of improving the quality of nursing handoff are complicated by the fact that many studies employed multiple interventions at one time. Of the studies that showed improvements in patient outcomes, not all showed statistically significant improvements. Overall, the authors concluded that while improving shift handoff has the potential to improve patient outcomes, more research is needed to confirm these effects.</p>

Citation #7: <a href="#">Vallabhaneni et al., 2022</a>					Level: III
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results Conclusions
<p>The authors of this study had four goals: 1) reduce the length of shift report to 30 minutes; 2) to improve overall satisfaction with the process of shift report; 3) to improve the structure of shift report by introducing the SBAR format; and 4) to implement a multi-disciplinary team teaching schedule.</p>	<p>The authors implemented an intervention (implementing the use of SBAR in handover report) with the goal of improving specific outcomes (improve effectiveness of and staff satisfaction with handoff report). Semi-qualitative pre- and post-implementation surveys and audits were completed to measure outcomes before and after staff education. While this was a quality improvement project (Level V), the evidence could qualify as qualitative, quasi-experimental (Level III) based on the pre- and post-intervention data collection and the examination of the impact of a specific intervention on specific outcomes.</p>	<p>All members of the multidisciplinary team (nurses, doctors and other health practitioners, social workers, and managers) were involved in the handover process at the liaison psychiatric service at a north London, England hospital, so the intervention was applied across all disciplines.</p>	<p>The primary intervention affecting the structure and quality of handover report was to introduce the SBAR format to the multidisciplinary team to familiarize members with the SBAR structure.</p>	<p>The authors measured length of handover report and satisfaction with handover report prior to implementing the use of the SBAR format, and then measured again after the intervention. Post-intervention, the authors also measured satisfaction specifically with the use of the SBAR format.</p>	<p>The authors concluded that implementing the SBAR format to shift report in a psychiatric setting is a well-accepted change that improves the structure and efficiency of communication during this crucial period of information exchange.</p>

Citation #8 <a href="#">Müller et al., 2018</a>					Level: II
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results/Conclusions
<p>The purpose of this study was to review the existing evidence for the impact of implementing SBAR on patient safety.</p>	<p>The authors examined one randomized controlled trial (Level I), two non-randomized controlled trials (Level II), and eight quasi-experimental studies (Level II). The data from all of the studies was quantitative.</p>	<p>The settings in the 11 studies included seven inpatient hospitals (both individual units and entire hospitals), one rehabilitation unit, and three nursing homes. The population included mostly nurses and providers, with two studies focused on improving communication between the entire team, five focused specifically on improving either intershift nursing handoffs or interdisciplinary handoffs, and four focused on situation-specific communication, such as phone calls between the nurse and physician.</p>	<p>Seven studies introduced educational programs (class or video). Six studies used interactive teaching sessions (coaching, role-playing). One study provided condition-specific SBAR templates for communication between nurses and physicians. Seven studies included organizational help/support (team meetings, leadership support, SBAR champions, policy change). Of these, one integrated SBAR competency into annual nurse competency training, and one integrated SBAR into nursing hand-off. Finally, six of the studies included the use of “trigger tools,” (poster, pocket cards, telephone stickers).</p>	<p>Assessed patient outcomes varied widely (26 outcomes total), but included falls, adverse drug reactions, ICU admissions, transfers to other hospitals, MRSA bacteremia and CAUTI rates, and cardiac events/deaths.</p>	<p>Four of the five studies focused on patient handoffs reported improved patient safety. The two studies that focused specifically on nursing handoff reported a reduction in falls in both studies, and a reduction in patient restraints and CAUTI rates in one of the studies. Overall, the authors concluded that while the studies reviewed showed potentially promising results, the quality of the evidence generated from most of the studies was moderate, with heterogeneous effects. The authors suggested that since past evidence has shown that communication breakdown can lead to adverse patient events, then it should follow that by remediating those communication breakdowns (in the form of implementing the SBAR framework into communication), patient outcomes should then improve.</p>

Citation #9 <a href="#">Bukoh &amp; Siah, 2020</a>					Level: II
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results/Conclusions
<p>The purpose of this study was to review the evidence regarding the effectiveness of structured nursing handover in improving patient outcomes.</p>	<p>The authors reviewed randomized controlled trials (Level I) and quasi-experimental studies (Level II), which makes this study a Level II systematic review.</p>	<p>The studies encompassed in the review included 1,169 registered nurses working on inpatient units across nursing disciplines.</p>	<p>The authors in each of the 9 studies included in the review utilized implementation of a structured handoff format as their intervention. Four of the 9 studies utilized SBAR as the structured handoff format.</p>	<p>The primary outcomes assessed in the 9 studies included patient complications (3 studies), nursing-related medication errors (2 studies), and general adverse events (4 studies), such as patient falls or delays in treatment. Additional outcomes that were assessed included handover errors (5 studies), handover of critical patient information and documentation errors (1 study), and quality of information (1 study).</p>	<p>The authors found that studies relating structured handoff to patient complications found little effect; studies relating structured handoff to medication errors found little effect; and studies relating structured handoff to general adverse events found little effect. Studies examining the effect of structured handover on handover errors found a moderate effect. The study that examined handover of critical patient information and documentation errors found significant improvement in handover of critical patient information, and documentation errors were almost entirely eliminated. The study that examined quality of information found that it was the highest-ranked among all the domains assessed by the authors. The authors concluded that while implementation of structured handoff led to an overall improvement in patient outcomes that</p>

					cannot be ignored, the pooled findings were not statistically significant and there was potential for bias and mitigating effects in all 9 studies.
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**Appendix B**

*Verbal Report Audit Checklist*

*Implementing Structured Handoff During Nursing Shift Report in a Small Psychiatric Hospital*

*Page 1*

## **Verbal Report Audit Checklist**

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Record ID

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Did the verbal, recorded nursing shift report follow the structured shift report checklist with 100% compliance?

- Yes
- No

**Appendix C**

***Shift Note Audit Checklist***

*Implementing Structured Handoff During Nursing Shift Report in a Small Psychiatric Hospital*  
Page 1

# Shift Note Audit Checklist

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Record ID

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Did the nursing shift note documented in the electronic health record follow the structured shift note checklist with 100% compliance?

- Yes
- No



**Appendix D**

*Report Length Audit*

*Implementing Structured Handoff During Nursing Shift Report in a Small Psychiatric Hospital*  
*Page 1*

## **Report Length Audit**

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Record ID

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Was the total length of the recorded report 20 minutes  
or fewer?

- Yes
- No