Nursing inter-shift handover process in mental health settings: a best practice implementation project

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Abstract

Aims Nursing inter-shift handover remains an important traditional ritual in nursing. Timely and effective handover of critical information ensure continuity of patient care and safe delivery. This project took place in a tertiary mental health institution in Singapore. The project aims to (i) examine existing handover practices/process in the tertiary mental health institution; (ii) determine the strengths and limitations of the existing handover practice/process; and (iii) identify, implement and evaluate an evidence-based nursing inter-shift handover process to enhance patient safety and service delivery.

Methods This project was conducted in three phases using the Joanna Briggs Institute Practical Application of Clinical Evidence System and Getting Research Into Practice programmes. It was implemented over a period of 4 months from end of August 2011 to beginning of December 2011. Evidence-based strategies such as town hall meetings and education sessions that reinforce proper handover techniques and its importance were implemented to enhance the handover processes and practices in four acute admitting wards. Pre- and post-audit data were observed and recorded for each case handover during each inter-shift handover session in four acute admitting wards.

Results The handover processes for 212 cases for four acute admitting wards were observed using the seven audit criteria. Post-implementation audit findings show that compliance rate had improved significantly for the four criteria: an improvement of 49% compliance rate in the use of standardised documentation during shift handover session; an increase of 74% compliance rate in proper identification of patient at the start of each case report; a 31% increase in proper handing over of significant patient’s history; and 18% increased compliance in providing detailed observation of patients.

Conclusion This project had shown that handover sessions can be made effective by translating evidence into practice through ongoing evidence-based audit. Continuous evidence-based evaluation, identification and implementation of nursing inter-shift handover process are imperative to enhance patient safety and service delivery.

Key words: best practice, communication, mental health, nursing inter-shift handover, shift handover.

Introduction

Nursing verbal inter-shift handover is a traditional practice in all care settings and disciplines.1,2 It is defined as ‘the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis’ (p. 7).1 Over the past decades, there have been growing concerns about this traditional practice among the researchers, clinicians, hospital administrators, educators and policymakers.2 With increasingly high occupancy rates, higher patient acuity, multidisciplinary interactions, staff changes and growing reliance on part-time staff,1 many have came to realise that ineffective inter-shift handovers can be hazardous to patients and healthcare professionals. Ineffective handover could also result in misuse of scarce resources,1,2,4-6 discontinuity of patient care, loss of information, incorrect
treatments, delays in diagnosis, adverse events, patient complaints, greater healthcare expenditure and increased lengths of stay.  

Globally, major healthcare institutions are looking at strategies to strengthen the efficacy and efficiency transfer of essential patient care information during nursing inter-shift handovers.  

The World Health Organization has ranked communication during patient care handover as fifth priority patient safety initiatives. In 2009, clinical handover was identified as one of the key focus areas for The Australian Commission on Safety and Quality in Health Care. The Joint Commission International in the United States (US) has ranked improving effective communication among hospitals as the second most important international patient safety goal, which all hospitals in the US and public hospitals in Singapore must meet in order to maintain their accreditation status.

The largest tertiary mental health institution in Singapore is obliged to ensure that quality care and services are delivered to the patients. The mental health institution needs to map their care standards with those laid by the prestigious mental healthcare by 2020. As such, there is a crucial need to review their existing nursing handover practices or processes, reduce the increasing incidences of inter-shift miscommunication and ensure safe delivery of patient care.

Although many studies have shown that nursing inter-shift handover is ubiquitous and widely practiced across all healthcare settings and disciplines, it is impossible to have a single approach that addresses the needs of all handovers due to the diversity and complexity of healthcare. Effective and efficient transition of patient care information requires an evidence-based handover approach. Such an approach has been shown to include elements such as face-to-face communication, documenting handover using a structured tool, patient identification, relevant history of the patient has been stated, detailed observation of the patients have been stated, the handover process includes an agreed plan of care for the patient, and responsibility transfer.

Audit questions

In view of these, this project seeks to answer the following audit questions:

- Are existing handover practices/process in the institution effective and efficient in transferring patient information accurately and timely?
- Are existing handover practices/process based on the best available evidence?

Aims/objectives

This project took place in a tertiary mental health institution in Singapore. The project aimed to:

- examine existing handover practices/process in the tertiary mental health institution;
- determine the strengths and limitations of the existing handover practice/process; and
- identify, implement and evaluate an evidence-based nursing inter-shift handover process to enhance patient safety and service delivery.

Methods

This project was conducted in three phases using the Joanna Briggs Institute (JBI) Practical Application of Clinical Evidence System (PACES) and Getting Research Into Practice (GRIP) programmes. The JBI PACES and GRIP programmes are online database systems designed to collect data and facilitate clinical improvement through audit, problem identification, action planning, action implementation and re-audit process. The project was implemented over a period of 4 months from end of August 2011 to beginning of December 2011.

Phase 1: preparation phase

In phase 1 of this project, a project guideline that explained and outlined the entire process of the project was developed.

Identification of topic

The topic selected for this project is nursing inter-shift handover process in mental health settings. This topic was chosen because recent root cause analysis of a hospital sentinel event indicated misinformation and lack of vital data during inter-shift handover as the main root causes. Hence, it is crucial to review the existing nursing handover practices or processes, in order to minimise incidences of inter-shift miscommunication and prevent the next disruption to patients’ continuity of care.

Establishment of audit team

Key stakeholders were informed about the project to garner their support. Approval to implement the project was sought from these key stakeholders prior to its commencement. A project team comprising of five members was formed. These five members included one senior nurse educator, one nurse educator and four registered nurses. The team was led by a senior nurse educator and assisted by a nurse educator, who were both participants of the Joanna Briggs Evidence-based Clinical Fellowship programme. The team members were informed of their roles and responsibilities in this project.

Determine setting and sample size

The project took place in a tertiary mental health institution in Singapore. The mental health institution houses approximately 2000 inpatients and provides comprehensive mental health services that meet the needs of children, adolescents, adult and elderly. More specifically, the baseline data were collected from four acute admitting inpatient mental health wards (two male and two female wards), once a week for 1 month by four auditors using PACES and GRIPs.

Audit criteria

The four auditors sat through the inter-shift handover sessions in the afternoon shifts once a week in each ward.
Observation was recorded based on a list of evidence-based audit criteria for each case handed over to the next shift in each selected ward. The details of the audit criteria were computed into the JBI PACES, which included the following:

1. Handover is done through face-to-face communication.\textsuperscript{1,8,9} This criterion was considered met when nurses conducted face-to-face inter-shift handover session in the afternoon shifts.

2. Handover is documented using a structured tool.\textsuperscript{8,10,11} This criterion was considered met when nurses used the handover reminder template for each patient during inter-shift handover sessions.

3. The patient is being identified.\textsuperscript{1} This criterion was considered met when nurses identify each patient by reciting the patient’s two identifiers (name and hospital registration number), age, gender, race and diagnosis at the start of each case report.

4. Relevant history of the patient has been stated.\textsuperscript{10} This criterion was considered met when information about patient admission history, past mental and medical (if any) conditions, and medication were handover for each case report.

5. Detailed observation of the patients have been stated.\textsuperscript{1,6} This criterion was considered met when detailed observation about patient’s mental status, behaviour and medical conditions (if any), specific concerns, and forwarding pending tasks were handover during the inter-shift handover session.

6. The handover process includes an agreed plan of care for the patient.\textsuperscript{2,10} This criterion was considered met when an agreed plan of care for each patient was handover to the nurses taking over the shift.

7. Transfer of responsibility of the patient from one nurse/shift to another nurse/shift occurred.\textsuperscript{8,12,13} This criterion was considered met when the nurse who is taking over the shift acknowledged or agreed to take over the care responsibility for the patients.

Identification of practice gaps
The team used the GRIP programme to identify existing practice gaps related to nursing inter-shift handover that prevented the nurses from achieving 100% compliance. The gaps identified were:

1. lack of proper handover techniques among registered nurses during handover report.\textsuperscript{2,8} This resulted in misinformation and disrupted continuity of patient care;

2. resistance to change among registered nurses.\textsuperscript{8} Most nurses did not follow the proper handover report process when handing over to the next shift. Their handover reports are largely medical or technical and have a limited nursing focus. In mental health institution, often times, detailed observation and handover of mental health related issues, such as patients’ mental states and behaviours, were missing in the nurses’ handover processes;

3. misuse of time.\textsuperscript{2,8} Cleary \textit{et al.} report that handover can take up a significant amount of time every shift in mental health settings.\textsuperscript{1} This greatly reduced the time available for the patients.

Strategies to improve handover practice
The GRIP programme was also used to identify evidence-based strategies to address the practice gaps identified during baseline data collection. The following strategies were implemented to address the gaps identified:

1. The project team organised town hall meetings with key stakeholders, namely: the nurse managers, nurse clinicians, registered nurses and enrolled nurses. Findings of sentinel events and electronic hospital occurrences reports were shared with these nurses during the town hall meetings to create awareness and highlight importance of proper handover techniques.

2. Education sessions based on the evidence-based handover strategies were also conducted for the nurses. In addition, all newly recruited nurses were taught proper handover techniques in their orientation programmes to inculcate the right culture on day one of their employment.

3. Registered nurses were also taught to appoint a time keeper and focused on handing over specific information and pending tasks pertaining to patient care and avoid side tracking. This reduced length of time spent in inter-shift handover reporting.

Baseline findings and evidence-based strategies were presented to the key stakeholders including the ground nurses in wards involved in the audit to garner their support for post-implementation audit.

Phase 3: post-implementation audit
One month after the implementation of the strategies to improve handover practices, a follow-up audit was conducted in the four selected acute admitting wards to evaluate the effectiveness of the evidence-based strategies using the same set of audit criteria in PACES. Data were analysed using the GRIP programme to identify practice gaps in the post-implementation audit.

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Ethical considerations
This project does not require ethics approval, because it was conducted in accordance with the Institute of Mental Health clinical quality improvement policy. It did not infringe on patients confidentiality and care in any manner.

Results
Audit results for all wards
Figure 1 shows the baseline and post-implementation comparison audit for Ward A. Baseline data are represented in the bar diagram in dark grey (n = 53). All three audit criterion in the baseline audit scored less than 50% indicating poor compliance to best practices. Poor compliance was especially observed in the identification of patient during clinical handover, reporting the rate of 0%. Relevant patient history and detailed observations in criteria 4 and 5 shared near similar baseline results (28% and 43%, respectively).

Post-implementation results are represented in the bar diagram in light grey (n = 53). All three audit criterion that scored less than 50% showed increased compliance rate after post-implementation. Results in criteria 3, 4 and 5 reported an increase in compliance rate of 14%, 48% and 13%, respectively, when compared with pre-implementation audit, indicating a significant improvement in clinical handover practices.

In Figure 2, baseline data are represented in the bar diagram in dark grey (n = 53). All six audit criteria scored above 50% indicating compliance to best practices. Poor compliance was again observed in the identification of patient during clinical handover, reporting the rate of 0%. This audit criterion finding was similar in Figure 1.

Post-implementation results are represented in the bar diagram in light grey. Slight improvement in audit criterion 3 was seen at 37% (n = 53).

Figure 3 shows the pre-implementation audit results (dark grey bar) in Ward C. All four audit criteria scored less than 50% indicating poor compliance to best practices during clinical handover (n = 53). Poor compliance was noted towards identification of patient during clinical handover (0%), relevant patient history (20%) and detailed observations of the patient (16%). Both Figures 1 and 2 had also reported similar baseline findings in audit criteria 3, 4 and 5.

Meanwhile the post-implementation result (light grey bar) in almost all audit criterions showed increased compliance rate with the greatest significance seen in criterion 3 with a post-implementation compliance score of 94% (n = 53).

Figure 4 shows the pre-implementation audit results (dark grey bars) in Ward D (n = 53). Audit criteria 2 and 3 both reported 0% baseline compliance rate, which was similar to Figure 1. Poor compliance was again observed in the identification of patient during clinical handover (0%), relevant patient history (20%) and detailed observations of the patient (16%). Both Figures 1 and 5 had also reported similar baseline findings to audit criteria 3, 4 and 5.

All post-implementation audit criteria, represented by the light grey bars, showed increased compliance rate with the greatest significance noted in criteria 2 and 3 with a post-implementation compliance score of 93% (n = 53).

Figure 5 shows the baseline audit records of the handover sessions for 212 cases observed in four acute admitting wards. The audit criteria listed in Figure 5 were used to audit the 212 cases. Results of baseline audit show that:
only 43% of the cases used standardised documentation in the handover sessions;
2 none of the nurses identified their patients by reciting the patient’s two identifiers (name and hospital registration number), age, gender, race and diagnosis at the start of each case report;
3 only 61% of the cases had their relevant history handover to the next shift; and
4 only 60% of the cases had their detailed observation about patient’s mental status, behaviour and medical conditions (if any), specific concerns, and forwarding pending tasks were handover during the inter-shift handover session.

Criteria legend
1 Verbal (face to face) communication has occurred (212 of 212 samples taken).
2 Standardisation documentation has been used (212 of 212 samples taken).
3 The patient has been identified (212 of 212 samples taken).
4 Relevant history of the patient has been stated (212 of 212 samples taken).
5 Detailed observations of the patient have been stated (212 of 212 samples taken).
6 The handover process includes an agreed plan of care for the patient (212 of 212 samples taken).

Post-implementation audit
Figure 6 shows the results of the post-implementation audit. The handover processes for 212 cases for four acute admitting wards were observed using the seven audit criteria listed in Figure 6. Results show that compliance rate had improved significantly for the four criteria, which had low compliance rate in the baseline audit. Results of post-implementation audit indicate that:
1 compliance rate with criterion 2 was 92%, which showed an increased of 49% compliance as compared with the baseline audit results;
2 criterion 3 showed an increased of 74% compliance rate as compared with baseline audit;
3 criterion 4 was 92%, which showed an increased of 31% compliance rate as compared with baseline audit; and
4 criterion 5 shows 78% compliance, which indicated an increased of 18% compliance as compared with baseline audit.

Criteria legend
1 Verbal (face to face) communication has occurred (212 of 212 samples taken).
2 Standardisation documentation has been used (212 of 212 samples taken).
3 The patient has been identified (212 of 212 samples taken).
4 Relevant history of the patient has been stated (212 of 212 samples taken).
5 Detailed observations of the patient have been stated (212 of 212 samples taken).
6 The handover process includes an agreed plan of care for the patient (212 of 212 samples taken).
Transfer of responsibility of the patient from one nurse/shift to another nurse/shift occurred (212 of 212 samples taken).

Discussion

This was the first time JBI PACES programme had been introduced and utilised in the hospital. The system was user-friendly and practical in carrying out change within a tertiary psychiatric care hospital. Despite the time constraint encountered during this project, it was gratifying to note that the interventions had yielded positive outcome after post-implementation.

The result of the second criterion relating to the use of the standardise documentation tool for clinical handover showed an improvement of 49%. The same was seen in the third criterion, which saw a 74% increase in cases that identified patient during handover. The improvement of these results could be attributed to the town hall meetings that were used to highlight the realities and root causes of sentinel events and electronic hospital occurrences reports. Town hall meetings that present incidents and preventable adverse events promote learning and provide opportunities for nurses to learn from mistakes.7,13 This strategy might have created awareness among nurses and increased their abidance in using the standardised tool.

The success of improving awareness among nurses in stating patients’ relevant history in criterion 4 displayed a 73% increase in cases that stated patients’ relevant history in criterion 4. This highlighted that equipping nurses with the required knowledge and updated skills on effective handover.7,13 The town hall meeting sessions might have created opportunities to correct practices, reinforce clear protocols and change mindsets, especially when staff do not meet this required standard for effective handover.7,13

Besides these, several other strategies might have also contributed to the significant improvement in the post-implementation audit findings. Firstly, the camaraderie and enthusiasm shown by all team members and stakeholders encouraged a high level of motivation that was essential for the success of this project, as communication is influenced by personal feelings and can be shaped by positive organisational culture.7 Hence, the result of the briefing given might have led to a clear understanding of the importance in adopting an evidenced-based audit tool. Feedback about the performance of the new practice was delivered in a non-punitive, positive manner to help reduce nurses’ resistance towards the new practice.7 In addition, the constant presence and collaboration of the project leaders served as a reminder to the nurses of how important it is to adopt and implement practices that will improve and enhance patient care.

Recommendations

The team recommended for the handover process to be audited using PACES and GRIP programmes on an ongoing basis to ensure compliance and continuous improvement of the handover process. Plans for sustaining the improved rate of compliance had also been designed. One ward will be audited monthly, and the audits will be conducted in the first or second week of the month between 2pm and 5pm. This will see the team conducting audit once every 12 months. This translates into 120 audits per year with the aims to achieve the Joint Commission International (JCI) threshold of at least 90% compliance rate. A limitation of this project was having only 4 months to implement this project, and during the implementation period, the hospital was undergoing its re-accreditation for JCI. Nevertheless, the outcome of this project and the audit criteria tool will serve as a basis for best practice that will eventually be incorporated to all wards within the hospital.

Conclusion

Nursing inter-shift handover remains a highly valuable and important nursing communication tool. Nurses rely heavily on information gathered from handover sessions to prioritise and make clinical decisions that impact patient care. This project had shown that handover session can be made effective by translating evidence into practice through ongoing evidence-based audit. Continuous evidence-based evaluation, identification and implementation of nursing inter-shift handover process will enhance patient safety and service delivery.

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