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Avoiding Communication Breakdowns in Nursing Change of Shift Handovers

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“Failures of communication, particularly those that result from inadequate ‘handoffs’ between clinicians, remain among the most common factors contributing to the occurrence of adverse events” (Bates & Gawande, 2003; p. 2527). Communication breakdowns were implicated as root causes in over 80% of the sentinel events voluntarily reported by hospitals in 2010. Regardless of whether communication occurs within professions or across professional boundaries, it is challenging to get the right information to the right people at the right time to make the right interpretation and take the right actions. In this paper, we examine nursing change of shift handovers (“handoffs” in the US) in a large teaching hospital and find some valuable lessons for improving communication.

Shift report handovers require both technical and relational communication, that is, the transmission of information about a patient relevant to their condition and care during the next shift supported by interpersonal behaviours that help create effective conversations and productive relationships among co-workers. Although it seems obvious what a “good handover” should include, the research literature offers no uniform or standardised way to give report.

Little guidance is available for creating perceptions of psychological safety, trust, and respect that encourage sharing and learning, and positive energy that combats burnout. For example, both the Joint Commission Handbook and the collaborative WHO-JCAHO brochure advocate that handovers include the opportunity for questioning. However, when relational communications are poor, aritual request for “any questions?” is not likely to improve handovers. Too many questions, irrelevant questions, or mistimed questions can be annoying. Efforts to standardise handovers could discourage questions, minimise attention to unusual information, and reduce opportunities for perspective-taking, trustbuilding, and learning.

Interviews, Surveys, and Observations

We studied two general medical/surgical units of a large, urban teaching hospital. Each unit had approximately 25 beds and 6-9 nurses per shift. Patients needed high levels of nursing care: 90% or more of the patients whose handovers we studied required medication management, fluid management, pulmonary management, cardiac and neurologic management, educational intervention, and/or assistance with activities of daily living.

To provide background information about shift report practices, we first conducted individual interviews with 12 nurses, seven of whom had six or more years of experience as an RN, on one of these units. These half-hour interviews asked each nurse to recall and describe a recent handover that “had gone well” and then a recent handover that “had not gone as well.” We then asked the nurse to give his or her thoughts about what

makes for a good handover.

Following these interviews, we collected five kinds of data from the other unit: (1) a survey to 28 of the 34 nurses in the unit, including demographics and background information, (2) audio taping and transcription of 77 handovers during 40 shift changes (e.g., coded for number of questions asked by each nurse), (3) direct observation of nonverbal behaviour during these handovers (e.g., eye contact, smiling), (4) post-handover questionnaires to nurses asking about handover effectiveness and whether the nurseknew the patient, and (5) coding, by an advanced practice RN, of clinical problems from the past 48 hours of nursing records associated with these patient handovers. The observed shift changes took place in a nurses' lounge in which the nurses congregated to give report at 7am, 3pm, 7pm, and 11pm (most nurses had 12-hour shifts from 7 to 7 but some had 8-hour shifts). Each outgoing nurse handed over 3-5 patients, generally 1-2 to each of multiple incoming nurses.

Describing Handovers

Interviews on the first unit revealed considerable variability of handovers across units, nurses, and prior experience with the

patient. Nurses told us that medical units differed in the availability and size of rooms in which to give report, and that nurses in another medical unit gave report via tape recorder rather than face-to-face. Individual nurses also had their own way of giving report, often from patterns learned in nursing school (e.g., head to toe).

On the unit we observed, handovers averaged 5.4 minutes per patient, with a range from two to 13 minutes. Typically, the incoming nurse sat at a table reading from the clinical record in a looseleaf binder and taking personal notes on a single sheet of paper that was later folded and carried during the shift. The outgoing nurse sat or stood next to the incoming nurse and spoke from memory and/or from her or his own personal notes about the patient. Outgoing nurses usually were made aware at the start if the incoming nurse knew the patient, either by asking or when incoming nurses volunteered that information. The outgoing nurse did most of the talking, looking toward the incoming nurse, who was writing notes and scanning the clinical record. From time to time there would be a notable bit of information that would cause the incoming nurse to look up and make eye contact, or the outgoing nurse would signal with a louder voice tone or by touching the incoming nurse, that the incoming nurse should attend to this information. Over one-third of outgoing nurses asked at the end if there were any questions. Incoming nurses asked 80% of all questions.

The Handover Effectiveness Puzzle

Incoming and outgoing nurses rated handover effectiveness on the post-handover questionnaire. These self-reported ratings of effectiveness were quite high (means of 6.72 and 6.49 on 7 point scales where 7 = strongly agree), but there was no relationship between the ratings by incoming and outgoing nurses ($r = -.07$). This poses the handover effectiveness puzzle: what is handover effectiveness such that incoming and outgoing nurses don't agree about it?

We had one objective measure of handover effectiveness. Advanced practice RNs coded active medical issues from the past 48 hours of the nursing records, and these were compared with the extent of discussion of these medical issues in the handover transcripts. Of the 263 active medical issues identified by our coders from the clinical records, one-third were not mentioned in the handovers, and only one-quarter of the active medical issues were presented adequately. For each handover, we calculated an effectiveness score by averaging adequacy of discussion across all active issues. But this effectiveness score did not correlate with ratings of effectiveness either by incoming or outgoing nurses, deepening the effectiveness puzzle.

However, when we looked at the posthandover questionnaire, observed nonverbal behaviours, and coded transcripts, a fascinating pattern of differences between incoming and outgoing nurses emerged. First, for both incoming and outgoing nurses, effectiveness correlated strongly with three questions about the "Positive Relationship" between the nurses: "I felt positive about this handover" ($r = .73$ and .66), "I felt comfortable enough to speak up if I perceived a problem during this handover" ($r = .70$ and .62), and "I felt a positive connection with the other nurse during this handover" ($r = .66$ and .59). These were stronger than the correlations with "I had all the information I needed" ($r = .52$ and .49), indicating that technical communication was important but not as important as the overall sense of the relationship during the handover.

But if effectiveness is strongly based on relational communication between nurses, why do incoming and outgoing nurses perceive the same handover so differently? The second piece of evidence is that incoming nurses found handovers with more eye contact and more questions to be more effective, but outgoing nurses found handovers with more eye contact and more questions to be less effective (and more emotionally draining). This is supported by comments by 4 of the 12 interviewees who asserted that a good report involves fewer questions, for example, "you know you have given a good report when the nurse doesn't have to ask many questions."

The third piece of evidence surfaced in our interviews: nine of the 12 nurses mentioned that reports are shorter if the incoming nurse already knows the patient. For example, one nurse stated, "if she knows the patient you don't go to every single detail, you just give an update." Consistent with the interviews, our direct observations showed that outgoing nurses shortened their handover presentations when the incoming nurses knew the patient. In particular, when we split incoming nurses by experience level as RNs (five years or less vs. six years or more), we found that only the more experienced nurses were making these adjustments. Experienced nurses giving handovers to incoming nurses who did not know the patient gave more thorough handovers (i.e., covered more active issues) and received fewer questions (a little over two per handover, on average) from incoming nurses, compared to experienced nurses who gave less thorough handovers to incoming nurses who knew the patient, presumably because they thought the incoming nurses needed less information. Yet, the incoming nurses asked more than five times as many questions (12 per handover) when they knew the patient. Less experienced nurses giving handovers gave an intermediate level of detail and received an intermediate number of questions (5-6 per handover), and this did not depend on whether the incoming nurse

knew the patient.

So What?

The concept of “an effective handover” is surprisingly elusive. Neither incoming nor outgoing nurses seemed to equate handover effectiveness with our expert coding of adequacy, which is the factual clinical content of the handover. The nurses’ ratings of handover effectiveness were much more strongly associated with the experience of a positive relationship during the handover.

Our results show that incoming and outgoing nurses experience the handovers very differently. Incoming nurses appreciated more connection and parity. For example, a less experienced nurse in our preliminary interviews said that handovers were “good when they are good communicators, someone who looks you in the eye and don’t [sic] get distracted.” But when the incoming nurse was more active in the handover, and asked more questions, it disrupted the flow preferred by the outgoing nurse, lengthened the handover, and made the outgoing nurse feel that something is going wrong with the handover. As one experienced outgoing nurse said, “you are tired… made me feel like why is she asking this stuff, is she trying to trip me up or is she really interested?”

Experienced outgoing nurses in particular seemed to abbreviate the handover when the incoming nurse knew the patient. But the resulting explosion of questions from the incoming nurse suggests that the experienced outgoing nurses were overcompensating for the assumed knowledge of the incoming nurse. As a result, these handovers became contests for control: the outgoing nurse tried to present a brief report but this frustrated the incoming nurse whose knowledge of the patient enabled even more question asking, which in turn frustrated the outgoing nurse who was trying to tell a succinct story and go home but was repeatedly interrupted.

What to do?

Although the research literature suggests that it will be easier and better when nurses give report to others who already know the patient, due to shared mental models, we find that these are exactly the situations that may create conflict. This seems related to a more general phenomenon that speakers systematically overestimate what listeners understand. Managing this potential conflict may involve recognition of the problem, standardisation of shift reports, and clarity on how to balance the multiple goals achieved in shift report (transmitting information, building trust, educating new nurses, etc.). Given that nurses are not typically aware of the different expectations among incoming and outgoing nurses, more discussion is needed among nurses and managers about where and how to standardise and where to allow or support variation (such as with more complex patients, less experienced nurses, etc.).

We must also consider that standardisation can create additional problems. For example, subsequent to our research, this hospital changed the nursing shift report process to take advantage of electronic nursing records. Outgoing nurses now enter patient information into the computer with a standard data format during their shift (and not necessarily at the very end of the shift when they are under time pressure to leave). When incoming nurses arrive, they go to the computer terminals and read about their assigned patients. Before outgoing nurses can leave the building, they are required to ask the incoming nurses taking their patients if they have any questions. Although the new process provides a clear structure with more documentation and reduces the time that overlapping shifts are away from the patients, a pro forma request for questions may not produce effective verbal communication. The benefits and challenges of this new handover process have yet to be formally evaluated.

Conclusions

Unlike typical everyday conversations, in which each party speaks and listens in symmetrical roles, there is tremendous asymmetry between giving and receiving report. The outgoing nurse has the information to transmit, and the incoming nurse is taking over responsibility for care of the patient. The incoming nurse is multi-tasking to read the written documentation and also hear the outgoing nurse’s report. Each nurse is also distracted, the incoming nurse by the need to get to the patients’ bedside and the outgoing nurse by the need to get home.

More can be done to improve handovers and to learn from the many innovations now being tried. Our research suggests that efforts to standardise handovers also should focus beyond the technical information content. Neither incoming nor outgoing nurses’ ratings of effectiveness corresponded to expert ratings of technical adequacy of the handovers. We must be aware of relational communication practices, such as perspective-taking and other trustbuilding skills, that facilitate transfer of clinical information, development of productive working relationships, and creation of a culture that supports effective learning.

References available upon request, lee@myhospital.eu

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