

Semi-Structured Interviews to Evaluate a BCMA Implementation Trouble Areas

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Abstract. Errors in medication administration involve risks to patient safety. “Bar-Coding Medication Administration” is implemented to prevent these errors. Adoption by nurses is one of the main determinants of their effectiveness. The Hospital Italiano de Buenos Aires implemented BCMA 6 years ago, but its adoption rate still finds resistance in certain sectors. We conducted semi-structured interviews with nursing staff to explore the barriers to the use in low-usage wards and explore the current perceptions of nurses. While nurses recognised the safety and usefulness of the BCMA system, they reported many difficulties. The feedback obtained through this process was useful for the implementation team to plan future interventions, priorities and improvements on the system. The semi-structured interview methodology proved useful as a continuous monitoring strategy.

Keywords. Nursing Informatics, Interview, BCMA

1. Introduction

Errors in medication administration involve risks to patient safety and are one of the most common causes of harm [1]. Drug delivery systems using Bar-Coding Medication Administration (BCMA) are implemented in health institutions to prevent these errors [2]. Nursing staff adoption of BCMA is one of the main determinants of their effectiveness [3]. Nurses are key actors in error prevention and may be legally liable for errors and negligence during administration in Argentina. The medication administration process is one of nurses’ main tasks. Monitoring, evaluation and follow-up of nursing work is recommended for successful implementation [4]. However, studies focusing on nurses’ perceptions and workflow are not common [2,4].

The Hospital Italiano de Buenos Aires (HIBA) implemented BCMA in 2015-16, but its adoption rate still finds resistance in certain sectors. A semi-structured interview model was chosen to explore this issue. Allowing using a question guide but also enabling space for reciprocal conversation, emergence of topics not considered by the interviewers, behavior exploration, individual expression, and other advantages [5].

The present work aims to explore the barriers to the use of the implemented BCMA system in low-usage wards and explore the current perceptions of nurses.

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2. Methods

The Hospital Italiano is a high complexity Stage 7 HIMSS accredited medical center in the City of Buenos Aires. It employs more than 9000 people, including 1600 nurses.

The interviews were conducted to nurses from 4 selected wards with the lowest drug identification using BCMA (as of August 2019). In total 12 volunteer nurses participated, 3 from each ward. An ad hoc guide was used, containing questions and dimensions related to work and organizational aspects in professional practice, system undermining factors, mobile stations, application and current state of implementation. For the analysis, textual recording of the interviews was performed and reviewed.

3. Results

As negative aspects, nurses mentioned station size as impractical, short battery life and slow tablets. Infrastructure issues, such as low WiFi coverage were also mentioned. QR code readers tend to break and there are often delays in their replacement or repair. Some nurses expressed concern about infection risk in isolated patients.

On the positive side, nurses stressed that the application is easy to understand, regardless of training processes. Rapid support from the Help Desk was highlighted.

4. Conclusion

Semi-structured interviews with real system users allowed the implementation team to know first-hand their reality, identify pain points and plan improvement strategies and reinforce the positive aspects. Continuous monitoring with open communication is key to successful implementation. We believe that this work tells a valuable experience regarding a Nursing IT implementation in Argentina, a topic and setting underrepresented in the literature. In addition, they were triggers for other lines of work, such as incorporating new app functionalities and exploring mobile alternatives.

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