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Evaluation of The Effectiveness of Project Implementation Tool

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Abstract

The Iowa Model for Evidence-Based Practice was utilized to guide the implementation of the capstone project and formation of the evaluation tool used to evaluate the effectiveness of the implementation of an SMS text message reminder service to reduce day of surgery (DOS) cancellations due to patient "no show." Specific steps were followed when measuring the effectiveness of the implementation of this capstone project and patients were to determine whether they showed up for their scheduled procedure. During project implementation, challenges were discovered regarding patient mobile number availability, cancellations and rescheduled procedures, and procedures scheduled after the assigned deadline for SMS text message delivery. Despite challenges, the project was successfully implemented.

Evaluation

The purpose of the evaluation was to assess the implementation of an SMS text message reminder service to reduce day of surgery (DOS) cancellations due to patient "no show." The Iowa Model for Evidence-Based Practice was utilized to guide the implementation of the project and formation of the evaluation tool. The seven steps of the Iowa Model (Doody & Doody, 2011):

1. Selection of a topic
2. Forming a team
3. Evidence retrieval
4. Grading the evidence
5. Developing an evidence-based practice standard
6. Implementing evidence-based practice
7. Evaluation

As previously noted, the topic was chosen due to a high percentage of DOS cancellations due to patient "no shows" at a small community hospital in northwest Pennsylvania. Once the literature review was completed (steps 3 and 4), the evidence-based practice change was determined: sending SMS text message reminders to reduce DOS cancellations due to patient "no show." The primary stakeholder was approached regarding the proposed project. It was emphasized that all stages of project implementation would be financed and performed by the project author, requiring no additional staff and no additional cost to the facility. Project approval was granted and the project was implemented for surgical and endoscopic procedures scheduled July 1, 2018 through July 31, 2018.

A data collection form was utilized to collect scheduled surgery information, whether patients' mobile telephone numbers were available, to verify an SMS text message reminder was sent, and if patients showed up for surgery. An example of evaluation form:

Date of Scheduled Surgery	Patient Initials	Procedure	Mobile Number Available	SMS Text Message Sent? (Y/N)	Did Patient Show for Surgery? (Y/N)

Surgeries scheduled by 2:00 pm two business days before their procedure date were included in the project. This project's success relied on the accuracy of mobile phone numbers on the procedure reservation forms. Potential barriers included inaccurate transcription of patients' mobile numbers, as well as patient mobile numbers that were unavailable. When collecting procedure information forms, the project author searched patients' demographic data, including possible mobile phone numbers in the facility computer system-based Electronic Medical Record (EMR). During the project implementation phase, it was discovered that the ReminderCall.com SMS text message reminder service used also included a report of successful message delivery. During the data evaluation stage of this project, a report will be printed to determine which SMS text messages were successfully delivered. A new column will be added to the evaluation form to detail which SMS text reminders were successfully delivered. This information will serve to

further define the effectiveness of SMS text message reminders and their effect on day of surgery cancellations due to patient "no show."

When measuring the effectiveness of the implementation of this capstone project, specific steps were followed. Once patients scheduled for procedures were sent reminder SMS text messages, those patients were tracked on the evaluation form to determine whether they showed up for their scheduled procedure. Patients that did not have mobile phone numbers available were excluded from the final analysis of the effectiveness of the implemented change. Procedures scheduled after the 2:00 pm deadline 48 business days pre-procedure were also excluded from evaluation. One challenge faced during project implementation was how to classify patients whose surgeries were rescheduled or cancelled. To avoid skewing the data regarding the effectiveness of this project, all cancelled or rescheduled patients were not included in the assessment. Another situation arose during the project where two patients arrived for their procedure but were subsequently cancelled by the surgeon for various reasons. Those patients were treated as patients that did show for their procedure when assessing the effectiveness of the implemented change.

Challenges and barriers were encountered during the implementation phase of the capstone project. New categories of patients, such as patients showing for their procedures but surgeons canceling their cases, were discovered and the decision to include or exclude their data was made. ReminderCall.com's unexpected ability to create a report outlining successful and unsuccessful delivery of SMS text messages added another layer of data collection to the project. However, the measurement tool proved to be reliable and flexible throughout project implementation.

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