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Jill Cohen

Lisa Bennett

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Practice Change:

No Shows to Medical Appointments: Where Is Everyone?

Jill Cohen FNP-DNP student, Lisa Bennett FNP-DNP student

University of Portland School of Nursing

(cohen15@up.edu and bennett15@up.edu)

Abstract

The purpose of this practice change was to increase the percentage of patients attending their appointments with their health care providers at an urban health center serving female patients. When patients fail to attend their scheduled medical appointment it impacts the organizational efficiency, continuity of care, and can affect patient health care outcomes (Perron et al., 2010). The health center in this project had a patient no-show rate of approximately 13%. With input from the authors, the health center manager made the decision to use the innovation of having medical assistants make patient reminder telephone calls at 48 and 24 hours prior to all scheduled appointments. Evidence from research reports show this technique is effective in reducing the number of patient no-shows in various clinical settings. The practice change project was initiated after developing and reviewing a proposal with the health center manager. A Call Tracking Form was completed by the medical assistants making reminder phone calls in order to identify who was called, at what interval(s), and if the appointment was confirmed. During the nine-weeks of practice change implementation a total of 699 appointments were scheduled with fifty-seven percent of these patients receiving reminder phone calls at 24 and 48 hours. In a nine week period prior to implementing this change, forty five of the 355 scheduled patients failed to attend their scheduled appointment, for a no-show rate of 13%. This is compared to 72 of the 699 patients with scheduled appointments during the practice change failing to attend a scheduled appointment, for a post-change no-show rate of 10%. In conclusion, reminder phone calls were effective in increasing the number of patients who attended their scheduled medical appointments. The combined effect of the reminder phone calls reduced the no-show rate by approximately 3%.

Background

Managing missed patient appointments represent a challenge for those working in health care systems. Non-attendance at appointments decreases healthcare revenue, causes suboptimal use of clinical and administrative staff, can impact wait times for patients, and negatively affects continuity of care (Perron et al., 2010). Several innovations have had varying degrees of success in reducing the number of patients missing scheduled appointments (Chen, Fang, Chen, & Dai, 2008; Fairhurst & Sheikh, 2008; Liew et al., 2009; Perron et al, 2010; Stockwell et al., 2014). A review of the evidence conducted by the authors indicated instances where staff made personal appointment phone calls, mailed letters, used text messaging, and automated voice messaging to

remind patients of their scheduled appointments (Chen et al., 2008; Fairhurst & Sheikh, 2008; Leong et al., 2006; Liew et al., 2009; Perron et al., 2010; Stockwell et al., 2014). This article describes a change in clinical practice conducted by the authors who were doctor of nursing practice-family nurse practitioner students with a goal to increase the percentage of patients attending their scheduled medical appointments at a women's health clinic where the no-show rate was 13%. This practice change was approved by the University of Portland Institutional Review Board.

Organizational Context

The site targeted for this practice change project is a community-based, outpatient primary health care center primarily serving Caucasian and Hispanic female adult patients that is focused on women's health care needs including family planning, ante/post-partum care services. The health center is located on the same campus as its parent organization and is part of a larger health care network. Strategic and financial objectives are typically disseminated from the parent company's executive leadership through face-to-face director meetings and emails. The organization's charity and financial policy is written to ensure a fair, equitable, and comprehensive system of distributing charity care to the financially burdened within the available resources of the hospital while also ensuring that the hospital is financially capable of providing the highest quality healthcare to the community.

Personal Context

The need for a practice change was identified by the health center's manager who noted patient absences from their scheduled medical appointment. Ten medical assistants provide support services to the health center's six health care providers. The medical assistant's responsibilities include performing clinical procedures under the supervision of the health center's physicians and midwives; escorting patients to exam rooms; interviewing patients and taking vital signs; ensuring reports, labs, and other patient information are updated in patient medical records; stock exam rooms with medical supplies and instruments; and make/take telephone messages to and from patients, providers, and other organizational staff.

The health center manager started tracking patient no-shows to identify patterns in appointment times most often missed, what type of appointments were being missed, and which patients chronically missed appointments. With this information an informal test of change was started with one of the health center's medical assistant being assigned to make reminder phone calls as a method of encouraging attendance. These phone calls were reportedly not made consistently, nor were they made for every scheduled patient appointment because of a lack of medical assistant time.

Problem

The recognition by the manager that the medical assistant's efforts at making patient reminder phone calls made minimal change to the no show rate is what motivated the need to make a practice change by seeking an evidence-based solution to increase the number of patients who attend their scheduled medical appointments.

Solution

Evidence Based Innovation

The authors reviewed the literature to provide the health center manager with evidence-based innovation suggestions for a practice change that could improve the percentage of patients attending scheduled medical appointments. It has been stated that patients who receive some form of reminder are more likely to keep their appointments than those who received no reminders (Chen et al., 2008).

In their work Perron et al., (2010), reported that a strategy of using several interventions at once, such as phone calls, text messages, and mailed reminders was effective and economical. At the time 62% of their patient population had cellular phones. In two clinical trials by Liew et al., (2009) and Chen et al., (2008) it was concluded that both text messaging and telephone reminders were effective in reducing non-attendance rates. They also stated that text messaging was fast, convenient and cost-effective as long as the patient population had cellular telephones and could receive messages. Three randomized controlled trials concluded texting was cost effective and a quick way to send a large number of text messages (Stockwell et al., 2014; Fairhurst & Sheikh, 2008; Leong et al., 2006). One of the trials indicated that using text messages moderately increased the number of clients who appeared for their annual vaccines (Stockwell et al., 2014).

Techniques considered to reduce no-shows in this project were as follows: 1) establishing a missed appointment policy (Jain, & Chou, 2000); 2) double-booking most frequently missed appointment times (Wilkinson, & Daly, 2012); 3) providing intake counseling with new patients to explain center policies and importance of rescheduling appointments (Jain, & Chou, 2000); 4) making reminder phone calls at 48 and 24 hours prior to scheduled appointment (Kaplan-Lewis, & Percac-Lima, 2013; Woods, 2011); 5) text messaging patient reminders before scheduled appointment (Youssef, 2014); and 6) sending patients prompt letters in the mail prior to their scheduled appointments (Jayaram, Rattehalli, & Kader, 2008).

Implementing the Practice Change

The health center manager considered the list of innovations as a means of increasing patients' attendance at scheduled appointments. The innovation option chosen for this health center was to have the medical assistants make patient reminder telephone calls at 48 and 24 hours prior to all scheduled appointments and to document these calls on a Call Tracking Form (Appendix A). In preparation for making this practice change, the authors met with the medical assistants in two separate educational meetings. The first meeting was held with the medical assistants during their morning shift report to discuss the issue of patients missing their scheduled medical appointments and the impact these absences had on the health center. The practice change of having the medical assistants make patient reminder phone calls was discussed and a written information letter explaining the practice change was distributed for their records. The second meeting with the medical assistants was held one week later to discuss the use of the Reminder Phone Call Process Checklist (Appendix B). At the beginning of each shift, the medical assistants were expected to use the Reminder Phone Call Process Checklist and generate a report of scheduled appointments that needed reminder phone calls in the next 48 and 24 hours. The process required that the medical assistants to log into the health center's computer system and

enter a future date range to reflect the 24 and 48 hour intervals. When the medical assistants made the patient reminder phone calls the results of these calls were documented on the call tracking form with a check-mark placed in the column that reflected the 48 and/or 24 call interval and appointment confirmation. The authors made weekly visits to the health center during the project to collect call tracking forms and to answer questions. At the end of the implementation phase of the practice change the medical assistants were asked to complete a Post-Project Implementation Process Evaluation Questionnaire (Appendix C) to evaluate their perception of the practice change.

Results

Fifty-seven percent of patients received reminder phone calls at both 48 and 24 hours during the implementation phase of the practice change, while forty-three percent of patients received a phone call at the 24 hour interval prior to their appointment. During the nine weeks of the practice change implementation, 72 of the 699 patients with scheduled appointments failed to appear at their scheduled time, for a no-show rate of 10%, as compared to the nine weeks pre-innovation implementation no show rate of 13%, which had 45 of the 355 patients fail to appear. (The variation in the number of scheduled patients for the pre and post innovation implementation periods reflects office closure for furlough and holidays).

The Post Implementation Process Evaluation Questionnaire was distributed to all ten medical assistants involved in the practice change project, with six questionnaires returned. The medical assistants were asked if the Reminder Phone Call Process Checklist provided for guidance when making patient reminder phone calls was helpful. The majority of the medical assistants strongly disagreed that the form was helpful; with one respondent neither agreeing nor disagreeing with the question. Two of the medical assistants commented that the Reminder Phone Call Process Checklist form was "too complicated to follow." The majority of the medical assistants who completed the evaluation questionnaire did not believe that the training provided to them on the Reminder Phone Call Process Checklist was helpful in implementing the practice change. The overall opinion about the value of the practice change project as it related to the medical assistants professional experience was negative. The Post Implementation Process Evaluation Questionnaire data can be found in Appendix D.

Conclusion

The health center's decreased no-show rate demonstrated by the practice change supports the continued implementation of the innovation of making patient reminder phone calls at 48 and 24 hours prior to scheduled appointments. Although many patients did not receive both 48 and 24 hour reminder phone calls, the consistency of making patient reminder phone calls may have contributed to the decreased number of no-shows. The information obtained from the Post Implementation Process Evaluation Questionnaires will aid the health center manager in identifying areas of the practice change that were well implemented and those areas that were not. Understanding the medical assistant's perceptions about the practice change and barriers to engagement in the project can help the manager to make implementation changes that will support the sustainability of the new practice.

During the practice change implementation, analysis of data, and reporting, the following observations were made by the authors.

Unresolved Questions and Lessons for the Field

When attempting to implement a practice change within an organization it is important to identify if other projects are being conducted concurrently. When more than one practice change is in process simultaneously, the potential to strain the organization's resources such as money or staff time can occur; negatively impacting the success of the practice change.

It is important to encourage the health center leadership and management teams to attend scheduled practice change meetings in order to help foster a sense of interest and engagement with staff about the project and to be available to answer organizational questions that the authors may not have answers for. Additionally, it is important to schedule meetings with the practice change participants when interruptions are minimal. There must be sufficient time allowed to clearly explain the procedure of the practice change in its initial stages and to ensure all questions/concerns can be addressed.

In the future, it would be helpful when implementing a practice change to identify a person from each stakeholder group to serve as the "Practice Change Champion." In this role, these people would represent the interests of their respective disciplines, disseminate information about the change, and be available for consultation with the practice change authors.

Providing an executive summary of the practice change outline, including the implementation details, to all stakeholders for review prior to starting the practice change could help eliminate confusion and miscommunication when the practice change is implemented. When a number of stakeholders are going to be impacted by a practice change, all stakeholders should be included in the discussion(s), potential resolutions, and have the opportunity to express their opinions about the proposed practice changes. It is important for authors to be mindful that when stakeholders are compliant with a practice change process, they may not really be engaged or committed to the success of the project or its sustainability. Complacency does not equal engagement when it pertains to translating evidence into practice

The information obtained from the Post Implementation Process Evaluation Questionnaires may aid the health center manager in identifying areas of the practice change process that were well implemented and those that were not. This may help to improve those areas of the practice change not rated as well implemented, which can then be improved or eliminated from future practice changes. The authors learned that the task of identifying and implementing an organizational practice change is challenging and requires skills not easily learned from textbooks or leadership camps.

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Appendix A

Call Tracking Form

Date: _____

Instructions: The first column (Patient by scheduled appt. time) refers to the time slot on your patients scheduled to be seen report. Please place a check-mark in the column of the task you are completing (phone call at 48 or 24 hours), (patient confirmed their medical appointment or if unable to reach the patient you left a voice message), etc. Please add a comment if needed, for example if the patient rescheduled the appointment. No patient contact information is to be documented on this form. Please place this form in the envelope in the manager's office when completed. Please use more than one form if needed to document all the patient calls.

Patient by scheduled appt. time:	24 hour Contact	48 hour Contact	Confirmed Appointment (Yes or No)	Voicemail left	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					

Appendix B

Reminder Phone Call Process Checklist

Reminder Phone Call Process Checklist	
Purpose: To provide a standardized workflow process for making patient reminder phone calls at 48 and 24 hour intervals prior to patients' scheduled appointments and documenting these calls on the Call Tracking forms.	
Inputs: Medical Assistants	
1.	At the beginning of each shift, the medical assistant will log into the health center's computer-based patient scheduling system and generate a patient schedule report.
2.	Once logged onto the computer system, the medical assistant will click on to the "Patient Schedule" tab and then click on the "Appointment" folder.
3.	In the top right corner of the "Appointment" folder is a date finder button. The medical assistant will input a specific date or date range to generate a report for patients scheduled to be seen in the next 24 and 48 hours.
4.	The medical assistant will click the "Run" button at the bottom on the page and a report of patients needing reminder phone calls will be generated.
5.	The medical assistant will print a copy of the Patient Scheduled Appointment Report to use for making the reminder phone calls.
6.	The medical assistant will retrieve the patient's contact information from the "Demographic" section of the electronic record. Contact information is to be kept confidential and will not be transcribed on to the medical assistant's documents.
7.	The medical assistant will make the patient reminder phone calls throughout the shift and will document these phone calls on the Call Tracking forms.
8.	Information to be documented on the Call Tracking forms will include: calls made at the 24 and 48 hour intervals, attendance confirmed or not-confirmed (if unable to speak with patient, leave a voice mail message). A comment section is available to make comments as needed.
9.	The medical assistant will place a check-mark in the columns that reflect the results of their phone calls. Written comments can be documented in the comment section as needed.

Appendix C

Post-Project Implementation Process Evaluation Questionnaire

Medical Assistants: Completing this questionnaire is voluntary. Whether you complete the questionnaire or not, please return it to the marked envelope as you leave the meeting room today. Thank you for your participation in this process and providing feedback on the process!

Instructions: Please place a check-mark in the column that reflects your answer.

Questions	Strongly Disagree			Neither Agree nor Disagree		Strongly Agree		
	1	2	3	4	5	6	7	8
Using the standard workflow form to make and document patient reminder phone calls was helpful								
The training I received regarding the use of the standard workflow form and documentation process was appropriate								
Questions that I had about the project were answered timely and appropriately								
Changing how I do my job helps to improve patient care delivery								
Participating in the practice improvement change project was a valuable experience								

Comments:

Appendix D

Post Implementation Process Evaluation Questionnaire Data

Questions	Strongly Disagree	Neither Agree or Disagree	Strongly Agree
Using the standard workflow process form to make and document phone calls was helpful	5	1	0
The training I received regarding the use of the standard workflow form and documentation was helpful	4	2	0
Questions that I had about the project were answered timely and appropriately	0	4	2
Changing how I do my job helps to improve patient care delivery	0	3	2*
Participation in the practice improvement project was a valuable experience	1	5	0

*No answer from one respondent to this question