

GAP Analysis Project: Part I

Julie R. Bangs

Walden University

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Workflow describes the characteristics of processes involving the execution of tasks by the healthcare team or computer information systems. Workflow optimization reduces costs and improves efficiency and begins with identifying and analyzing a problem with a current routine or practice (McGonigle & Matrian, 2015). Conforming to the Health Information Technology (HIT) and the Health Information Technology for Economic and Clinical Health Act (HITECH Act) and meaningful use (MU) (HealthIT.gov, 2015) requires healthcare facilities to use electronic healthcare records (EHRs) in a meaningful manner that improves the quality of patient care and outcomes (HITECH Answers, 2015). This GAP analysis (GA) Project will evaluate the current processes and help identify when additional, modified, or deletion of steps or tasks are needed to optimize the workflow and EHR.

Workflow Issue

The Behavioral Health Unit (BHU) is a 28-bed inpatient psychiatric entity that is physically located in a 133- bed general and acute care hospital. The BHU employs registered nurses and behavioral health technicians and the number of staff members present on each shift is reliant on the patient census. There is a resident psychiatrist, a unit director, and a nurse manager on duty Monday through Friday. During each 12-hour shift, there is one registered nurse (RN) whose primary responsibility is to administer all medications to each of the patients. Another responsibility of the medication RN is to initiate and update the prescribed medication sheet. This document lists all the psychotropic medications in handwritten form, and its purpose is to disclose the medications to the

patient that the psychiatrist has prescribed. Patient education methods are documented on the sheet for each medication. There are two available options for patient education: “verbal” or “handout.” The resources given to patients are not always up-to-date or consistent and are dependent upon the RN’s preferences. Most RNs document that education was verbalized; however, only a few provide the patient with a handout generated from a web site. If the same patient asks for a handout from two or more different RNs on different days, there may be conflicting or eliminated information among the handouts.

A pop-up is generated on the electronic medication administration record (eMAR) when scanning a medication for a patient the first time. This pop-up briefly highlights the marketed use of the medication, its classification, and common side effects. The problem with this pop-up is that many of the medications are used for off-label purposes, and this has confused patients or increased their anxiety of being prescribed an *anti-psychotic*, for example. When medication handouts are printed, they can be quite lengthy, and up to 10 or more pages for each medication. This has the potential to overwhelm patients with redundant and irrelevant information, creating wastage with time and materials. Clinical staff often lack awareness about workflows and its impact on patient care (Hummel & Evans, 2012) and how the removal of wasteful activities, increases efficiency and creates a more desirable workflow (McGonigle & Matrian, 2015).

Goals

Setting goals provides an organization motivation and long-term vision. Having pre-defined goals assist in the planning stages and provide guidance throughout processes and decision making. SMART is the mnemonic acronym used most often when defining a goal: Specific, Measurable, Achievable, Realistic, and Time-bound (Marquis & Huston, 2015). There are several goals identified for the GA project; the primary goal will focus on conforming to MU objectives and regulations. Stage I MU Menu Set Measure number 5 (HealthIT.gov, 2014) is now a Stage II Core Measure and requires healthcare organizations to provide patients with “Patient-Specific Education Resources” (HealthIT.gov, 2014) at the point-of-care. Secondary goals include:

1. Improve workflow through point-of-care education that eliminates wastage of time and resources.
2. Identify and collaborate with key stakeholders for the purpose of translating the GA into practice.
3. Optimizing the current EHR to provide a direct link to medication information (MedlinePlus Connect, 2016).
4. Procure the necessary resources to implement point-of-care medication education handout printing in the two medication rooms.

Data Collection

Collecting data for this project will require several methods. Observation methods provide researchers the opportunity to assess non-verbal and verbal communication and interaction among nurses and document how much time is spent on specific tasks or duties. Observing nurses, unit process and culture provides qualitative data. Minimizing the disruption of normal activities is crucial to reflect a true assessment of workflow processes. Unfortunately, there are no opportunities to become a *complete observer*, meaning that the observer will be completely hidden from view. During observations, I will be a *complete participant*; a staff member who conceals the study objectives from the team (Kawulich, 2005) until the next phase of data collection begins.

Interviews can offer the nurses' perspectives of workflow processes and provide opportunities to discovery reoccurring themes. The validity of the observational findings can be reinforced through questionnaires and surveys thus providing qualitative data. A ten-item questionnaire was developed through Survey Monkey (2015) and aimed at nurses on their practice and preferences regarding patient-specific psychiatric medication information. An embedded link to take the survey will be emailed to each nurse in the unit and submissions are anonymous. Additionally, the Director of the BHU and the nurse manager were asked if a patient survey could be handed out. This is also an anonymous ten-item questionnaire that asks patients their preferences on receiving

patient-specific psychiatric medication information. Survey Monkey provides a detailed analysis of the completed surveys that were submitted electronically and provides an option to manually enter responses from the printed questionnaire given to patients.

Methods

Baseline metrics are calculations that provide data to compare past performances to current performances; they can also be future focused and provide a measurable goal to see if it's trending towards the pre-defined goal. Key Performance Indicators (KPI) assesses the organization's performance of an objective or goal. Measuring the observed workflow against the desired workflow will aid in establishing the baseline KPI. Medication education documentation audits will provide objective data on how many nurses utilized verbal methods compared to printed methods when educating patients about each prescribed psychiatric medication. Once the baseline KPI is known, a higher KPI can be assigned as the new goal.

Discussion

The observed workflow will be compared to the staff's perceived workflow, and thirdly, to the desired workflow. Personal and professional knowledge of current practice in the BHU will allow me to initiate observations of RNs, perform brief interviews and develop questionnaires, and provide an education resource that will demonstrate the steps of workflow optimization. The nurse manager has already been informed of this project. Additionally, the Attending Psychiatrist, Director of the BHU, and one of the nursing informaticists will be consulted. Suggesting strategies for minimizing wastage constitutes altering current practices. Due to current knowledge of the BHU culture, it is expected that many of the nurses will be resistant to proposed changes despite the GA results. Knowledge of change theories and strategies to influence stakeholders can enable transformation in healthcare organizations. Conforming to MU requirements and regulations may be the driving force for decision makers to implement the proposed change in practice.

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GAP Analysis Project: Part II

Julie R. Bangs

Walden University

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GAP Analysis Project: Part II

Achieving optimal workflows involve a detailed analysis of processes through the identification and prioritization of tasks that contribute to the intended results (Washington, 2008). A GAP Analysis (GA) utilizes methods to collect information on the differences between a current workflow and the desired workflow with interpretive results. Solutions are then strategically developed to close the identified practice GAP(s). Part I of the GA Project identified several workflow issues conforming to the Meaningful Use (MU) core measure (CMS, 2012) of providing “Patient-Specific Education Resources” at the point-of-care and became the primary goal of the GA project. Secondary goals include the elimination of wastage, identification of key stakeholders, optimization of the electronic health record (EHR), and the procurement of resources to implement the proposed changes.

Methods

Complete participant observation in a 28-bed inpatient Behavioral Health Unit (BHU) extended over 24 hours (two 12-hour shifts) and included eight new patient admissions. Initial observation focused on the interaction between the RN and patient being admitted, processes, and technology. A convenience sample of patient charts (n=40) were audited on two separate occasions (n, n+7 days) and 214 prescribed psychiatric medications were documented on the 40 patient medication education forms.

Results

Direct observation of the eight new patient admissions revealed that the three admitting registered nurses (RNs) deferred the patient-specific psychotropic medication education to the assigned medication RN (n=2) 100% of the time. The chart audit concluded that RNs documented verbal education on 18 (8.41%) of the 214 prescribed psychiatric medications and provided printed handouts on 70 (32.71%) medications. One hundred and twenty-six medications (58.88%) had neither verbal nor handout education documentation. Two patients (5%) received verbal education, twelve patients (35%) were given handouts, and 26 patients (60%) did not receive patient-specific psychotropic medication education through verbal or handout methods.

Discussion

The direct observation results indicated the admitting RNs deferred the patient-specific psychotropic medication to the medication RN. The patient education documents showed that 60% of patients are not being educated about their newly prescribed psychotropic medications. MU regulations (CMS, 2012) requires healthcare facilities to document patient-specific education for at least 10% of all patients. The BHU has exceeded this requirement by 30% and has a baseline key performance indicator (KPI) metric of 40% based on preliminary data using the equation: $\text{Performance (Value) \%} = \{(\text{Value} - \text{Min}) / (\text{Max} - \text{Min})\} \times 100\%$ (Savkin, 2015). The BHU can now set the KPI to a higher goal and benchmark the projected KPI against other BHUs in the same healthcare system or other healthcare organizations.

Collaborating with key stakeholders and health information technology experts and about implementing a Medline Plus link to each medication will require a formal request and authorization through corporate headquarters. Ideally, an interdisciplinary team would include a group of five to eight people (The National Learning Consortium, 2012). The onsite nursing informaticist committee would be appropriated for the project due to the limited capabilities of this author. The time and materials for installing the necessary printers in each of the two medication

rooms would come out of the BHU's budget. These objectives will provide the medication RN the necessary resources to provide patient-specific psychiatric medication education handouts at the point-of-care. Increasing efficiency and decreasing wastage in workflows affects all aspects of the healthcare business process and effect patient safety, satisfaction and outcomes (Vankipuram, Kahol, Cohen, & Patel, 2011).

Limitations

Approval to conduct interviews and to use the anonymous Survey Monkey® ten-item questionnaires aimed at both the staff RNs (*Appendix A*) and the patients (*Appendix B*) were both denied by the BHU administration. Requests and approvals from upper-level management were futile due to the time constraints of this project. The Senior Nursing Informatics officer failed to respond to the electronic mail communication by the time this paper was written. The specific drug websites utilized as references were not identified. Additionally, this author has minimal knowledge about inferential statistics and therefore the results may be skewed. Finally, the RN and patient survey syntax may need to be re-evaluated for errors.

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Appendix A

RN Survey

1. When do you provide patient-specific education to patients about their prescribed psychiatric medications?
 - a. When the patient signs the medication sheet.
 - b. I defer it to the medication RN.
 - c. When I have the time.
 - d. I do not provide education unless they ask me
2. How do you prefer to give patient-specific education to patients about their prescribed psychiatric medications?
 - a. Verbally
 - b. Printed material
 - c. Both, verbally and printed material
 - d. Neither, verbally nor printed material
3. If you provide patient-specific education to patients about their prescribed psychiatric medications with printed material, where do you find the resources?
 - a. Google and choose from the options
 - b. N/A
 - c. A certain website (please specify)
4. If you provide patient-specific education to patients about their psychiatric medications verbally, what resources do you use?
 - a. Pop-up on eMAR
 - b. Professional knowledge
 - c. N/A
 - d. Other (please specify)
5. If you provide patient-specific education to patients about their prescribed psychiatric medications with printed material, approximately how many pages are each medication handout?

- a. 1 to 3 pages
- b. 4 to 6 pages
- c. 7 or more pages
- d. N/A

6. When you inform patients about the psychiatric medications they have been prescribed, how often do you ask patients if they have any questions?

- a. Always
- b. Usually
- c. Sometimes
- d. Never
- e. N/A

7. Before you administer a psychiatric medication to patients, how often do you tell them what the medication is for?

- a. Always
- b. Usually
- c. Sometimes
- d. Never
- e. N/A

8. If you are the medication RN and provide patient-specific education to patients about their prescribed psychiatric medications with printed material, which would you prefer?

- a. Printing the handouts in the medication room at point-of-contact.
- b. Having pre-printed handouts in a file folder in the medication room or nurse's station.
- c. Print the handouts in the nurse's station.

d. Print when I have time. N/A Other (please specify)

9. Before you administer medications to patients, how often do you tell them what the medication is and dosage?

- a. Always
- b. Usually
- c. Sometimes
- d. Never
- e. N/A

10. If you are the medication RN, how satisfied or dissatisfied are you with going between two medications rooms to find medications?

- a. Very satisfied
- b. Somewhat satisfied
- c. Neither satisfied nor dissatisfied
- d. Somewhat dissatisfied
- e. Very dissatisfied
- f. N/A

Appendix B

Patient Survey

1. How do you prefer to learn about your prescribed psychiatric medications?
 - a. Verbally
 - b. Printed Material
 - c. Both, Verbally and Printed Material
2. How did you receive education about your prescribed psychiatric medications?
 - a. Verbally
 - b. Printed Material
 - c. Both, Verbally and Printed Material
 - d. I was not provided education about my medications.
3. If you received printed material about your prescribed psychiatric medications, how many pages were each handout?
 - a. 1 to 3 pages
 - b. 4 to 6 pages
 - c. 7 or more pages
 - d. N/A
4. If you received printed material about your prescribed psychiatric medications, how easy or hard was it to read and understand?

- a. Very easy
- b. Somewhat easy
- c. Neither easy nor hard
- d. Somewhat hard
- e. Very hard
- f. N/A

5. How many pages would you like to receive about each of your prescribed psychiatric medications?

- a. 1 to 3 pages
- b. 4 to 6 pages
- c. 7 or more pages
- d. I prefer not to receive printed material on my medications.

6. Before giving you any newly prescribed psychiatric medication, how often did the nurse tell you what the medicine was for?

- a. Always
- b. Usually
- c. Sometimes
- d. Never

7. How satisfied or dissatisfied were you with the amount of time the nurse spent educating you about your prescribed psychiatric medications?

- a. Very satisfied
- b. Somewhat satisfied
- c. Neither satisfied nor dissatisfied
- d. Somewhat dissatisfied
- e. Very dissatisfied

8. How well did the nurse answer your questions regarding your prescribed psychiatric medications?

- a. Very well
- b. Moderately well
- c. Slightly well
- d. Not at all well
- e. I did not have any questions about my medications

9. How willing are you to take newly prescribed psychiatric medications when you do not understand why they are given?

- a. Extremely willing
- b. Very willing
- c. Moderately willing
- d. Slightly willing
- e. Not at all willing

10. How willing are you to take newly prescribed psychiatric medications when you do understand why they are prescribed?

- a. Extremely willing
- b. Very willing
- c. Moderately willing
- d. Slightly willing
- e. Not at all willing