

Patient Portals: An Educational Project to Improve Provider Readiness

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Abstract:

Background: With the adoption of the Health Information Technology for Economical and Clinical Health (HITECH) Act of 2009, came the implementation of the electronic health record (EHR) and incentivized provider programs called Meaningful Use (MU). A goal of MU is to utilize patient portals to improve access to care. Current evidence supports patient portal use however providers are concerned about increased work load and lost revenue because of the time spent managing the portals rather than providing direct, billable patient care. **Purpose:** The purpose of this project was to assess provider readiness for patient portals and provide an educational intervention to address perceived barriers. **Method:** Nine providers at a large family practice clinic in the Southwest United States were surveyed using a provider readiness questionnaire (Kepplinger, et al., 2013) prior to and after an educational intervention. **Results:** Improved response to patient portal use after the provider viewed the learning module. A paired-samples t-test was conducted to compare pre-learning module readiness questionnaire results to post learning module readiness questionnaire results. There was a significant difference in the scores for question about increased workload pre-module ($M= 3.78, SD=1.201$) and increased workload post module ($M=2.67, SD=1.225$) conditions; $t(8) = 5.547, p = .001$. There was a significant difference in the scores for question about increased provider professional satisfaction pre-module ($M=3.89, SD= .333$) and increased provider professional satisfaction post module ($M= 4.44, SD=.527$) conditions; $t(8) = -2.294, p=.051$. **Implications:** Providing portal education can assist the provider in understanding the value of the portals to improve patient outcomes and patient centered care. Improving portal use with also foster patient provider relationships and allow the practice to attest to Meaningful Use and obtain allotted incentives.

Keywords: Patient Portals, Meaningful Use, electronic medical record, electronic health record, HITECH act, provider readiness

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With the adoption of the Health Information Technology for Economical and Clinical Health (HITECH) Act of 2009, came the implementation of the electronic health record (EHR) (Devine et al., 2010). Since the implementation of the EHR, incentivized provider programs called Meaningful Use (MU), supported by Centers for Medicare and Medicaid (CMS), guide the use of the data achieved through the health record (CMS, 2014). Most notably, MU utilizes the information from EHR's to improve upon patient communication, records retrieval, preventative care, and prescribing ability among other components of care delivery. One goal of MU is to utilize patient portals as a means of improving access to care. The objective of the patient portal is to give the patient access to personal records and increase contact with their health care provider (Goel et al., 2011). Patient portals have been shown to engage patients in their care, provide medical record transfer for continuity of care, and to increase access to health providers improving patient health outcomes and patient satisfaction (Otte-Trojel, De Bont, Van DeKlunder, Rundall, 2014; Kruse, Argueta, Lopez, & Nair, 2015).

The EHR is a permanent and prominent fixture in the healthcare market. As patient portal use increases, provider support becomes needed to ensure adoptability and use. While evidence supports the use of patient portals to promote patient access, many providers remain resistant. Providers report being overwhelmed with yet another task driven requirement that ultimately takes time away from direct patient care (Keplinger, Koopman, Davie, Merh, Kruse et al, 2013). One way to understand why patient portal use is so important is to examine MU guidelines. MU has three stages that, over time, cover a wide range of data sharing of the EHR. The MU objective dates allow for outpatient clinics and hospitals to qualify for program incentive dollars from CMS. Currently, the dates for MU range from 2011 through 2017. The first stage began in

2011-2012 and included data capture and sharing. In this stage, most outpatient clinics began to adopt software, which lead to the transition of electronic records versus traditional paper charting. The second stage dated 2014-2016 focused on clinical processes. This current phase has several objectives aimed at improving patient's access to records and communication with providers. Specifically, CMS (2014) defines this portion of stage 2 as the capacity to provide patients the ability to view online, download and transmit their health information within four business days of the information being available. In addition, it requires the use of secure electronic messaging to communicate with patient on relevant health information (CMS, 2014). It is time to examine the barriers of an electronic portal to obtain information and communicate with patients. Specifically, this project targets the readiness of the provider to use patient portals.

Problem Statement

The problem some family practice offices face is provider support and use of portals. While questions remain as to the validity of patient portals, many family practice offices are moving forward with portal adoption and implementation as guided by government policy. One very important first step to portal implementation is first to assess provider readiness. With the MU guidelines requiring increased patient access to records and medical providers, outpatient clinics need to find an approach to increase portal use by providers. This inquiry led to the clinically relevant PICO question, "For primary care providers, does the implementation of provider readiness training assist in the use of patient portals compared to no provider readiness training."

Search Process

The following databases were used to research the stated PICO question: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Pub Med, MEDLINE, and Cochrane Database

of Systematic Reviews. Search terms included meaningful use (MU), EHR or Electronic Health Record or Electronic Health Records, Medicare guidelines, CMS guidelines, patient portal, personal health record (PHR), health information technology (HIT), provider readiness and health information exchange (HIE). The search was limited to: the English language, studies published in the past five years, and to full text articles. Also included were Boolean phrases and attempt at MeSH terms generated the final references used.

Evidence Synthesis

Ten studies provided support for furthering patient portal access as supported by office staff guided by CMS standards. The evidence was concentrated with level III with qualitative studies. The overwhelming theme is expression of personal experiences with the portals. Identification of thoughts and actions that described the phenomena of portal adoption, patterned around experience with electronic communication, perceived benefits and likelihood of improved patient outcomes link the evidence. Major variables studied include readiness for adoption, age, gender, ethnicity, MU incentive and EHR functionality. Data collection focused on typical qualitative methods of surveys, questionnaires, and interviews. Analysis proved to be rigorous citing multiple measures of descriptive statistics. The sample had a great deal of heterogeneity with four study samples assessing patient's perception and three studies highlighting provider attitudes and two demonstrating concern for interoperability. Noted strengths of this body of evidence includes the range of attitudes and perceptions apparent to both patient and provider. The evidence is clear; adoption of patient portals is suitable however, some resistance eludes to the problem of provider readiness. Clinicians examining this evidence can confidently move forward with practice changes to assist with provider readiness and patient portal use. Weaknesses encountered with these 10 studies include the controversial Medicare funded

incentives pushing outpatient clinics to be compliant with portal activation without monitoring utilization. Furthermore, the generalizability is questionable as many studies were focused on a small demographic or region.

EBP Model/Conceptual Model

The Iowa model was used to guide this project. This model is valuable as it allows for utilization in larger groups and directs a pilot process to assist larger offices in a practice change. This Model guides the project by examining problem focused triggers, team engagement and involves the research component that is applicable with patient portals in the age of the EHR. The ATTC Network Technology Transfer Model provided the framework for this project. This model applies some principals of Rogers (1962). Diffusion of Innovation with a basis in the transfer of technology to promote innovations, knowledge, technologies and skills from one setting to another. The model guides this project related to technology transfer of information from the EHR to the provider, between the patient and the provider, and to interoperate for dissemination.

The process of implementing a fully functioning portal include assessing readiness for provider to take on the “extra work” needed to provide this service. Also, changing to clinical workflows to adopt portals are met with mixed reviews. This Model can assist in the transformation of technology to EBP practice. Incentive programs are an influential factor related to the enrollment of patient portal success (Goel, et al, 2011; Neuner, Fedders, Caravella & Schapria, 2010; Kannry, Pratharna, Wang & Nissim, 2012). However, success of patient portals enrollment is not linked to utilization of the portal thus far (Studenly, & Coustasse, 2014; Burke-Bebee et al., 2012). Multiple studies assess the effect of incentive programs on the use of EHR along with prescriber perceptions when implementing new HIT technologies. Provider

performance and core measures can be time consuming, intimidating and daunting to evaluate (Kruse, Argueta, Lopez & Nair 2015).

Methods

Permission was obtained from southwestern medical practice to deliver confidential questionnaire packet which included instructions on how to create a unique identifier that was kept private. Internal Review Board approval was received from Arizona State University on October 21, 2016. Participants were solicited during a monthly staff meeting where the project was explained and described. Once individuals agree to participate in the project, they were each given a packet containing one pretest questionnaire, one learning module and one posttest questionnaire. Results were mailed to student project director. The survey was adapted from the Faculty and Resident Physician Agreement* With Statements Regarding the Potential impact of Implementing a Patient Portal (Keplinger, Koopman, Davis, Mehr, Kurse et al, 2013) and served as the pretest and posttest questionnaire. The survey consists of eight questions measured using a Likert scale ranging from strongly disagree, disagree, neutral, agree and strongly agree. There are 2 questions that are yes or no answers with regards provider preference for portals.

The participants initially completed the questionnaire prior to reviewing the learning module. The module includes 3 topics, My Financial Risk (Module 1) My Increased Work Load (Module 2), and My Patient Satisfaction (Module 3). Each module includes current evidence on the topics and provides electronic links to additional resources. Once all the modules were completed the participant, they then completed the posttest questionnaire.

Results

A paired-samples t-test was conducted to compare pre-learning module readiness questionnaire results to post learning module readiness questionnaire results. There was a significant difference in the scores for question about increased workload pre module ($M= 3.78$, $SD=1.201$) and increased workload post module ($M=2.67$, $SD=1.225$) conditions; $t(8)=5.547$, $p = .001$. There was a significant difference in the scores for question about increased provider professional satisfaction pre module ($M=3.89$, $SD= .333$) and increased provider professional satisfaction post module ($M= 4.44$, $SD=.527$) conditions; $t(8)= -2.294$, $p=.051$.

Discussion

To fully implement patient portals there needs to be provider buy-in. The purpose of this project was to determine if an educational intervention would improve provider readiness to use patient portals. Since a component of a fully functioning EMR includes a patient portal, provider readiness training is a way to assist with adoption (White , Dudley-Brown & Terhaar 2016). Once readiness training is in place, the outcome should favor a reliable and accurate transactional system with a lifetime clinical record that is transferable across multi-specialties.

Internal evidence indicated that providers at a busy family practice in southwestern United States were concerned that the use of patient portals would increase workload and reduce time for direct patient care. The use of and educational intervention was shown to reduce concerns about workload and at the same time, increase provider satisfaction. The transparency of medicine and its ability to interoperate in and between specialists is a technological shift that is supported by inclusion of portal use by CMS with MU guidelines (Keplinger, Koopman, Davis, Mehr, Kurse et al, 2013). Additionally, portal adoption comes with potential financial gain or penalties depending on how each practice will attest to MU.

How best to use and manage patient portals portal should start with the newly graduated clinician. Fostering new providers in portal use is crucial to outpatient changing workflows. Employers are looking for providers who are able to effectively manage portals thereby, increasing revenue by qualifying for monetary incentives once portal use meets Medicare guidelines.

Strengths of this project included good provider response and organizational support. Limitations included the small sample size. There was some difficulty with the instruction for the posttest survey instructions resulting in one participant being excluded for not completing the second survey. Additionally, the practice site was an established and busy practice resulting in low recruitment.

Conclusion

To fully implement patient portals, providers need to be prepared to effectively manage portals and to support their use. This project found that provider readiness training for patient portal adoption improved perceptions about portals increasing workload. It also found increased professional satisfaction with portal use. In general, results were positive, supporting portal adoption. Adoption of portals with current and new providers further supports MU attestation required for EHR's. Significant financial incentives are granted through Medicare for portal use. Conversely, sharp penalties may be instituted to those not meeting MU guidelines. Evolving technologies shape the relationship between patient and providers. Providing an educational intervention to improve provider readiness may increase provider use of portals to facilitate provider-patient communication that may ultimately improve patient health outcomes.

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