32  PATIENT PERCEPTIONS ABOUT THE UTILITY OF FAMILY HISTORY REVIEW DURING WHOLE GENOME SEQUENCING

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Patients may not recognize the importance of family history when undergoing genomic sequencing or as a tool by itself. To examine this issue, healthy primary care and cardiology patients in the MedSeq Project are being randomized to receive standard of care, where they review family history, or to receive a family history review along with whole genome sequencing (WGS) results. Six weeks after disclosure, participants rate the utility of information on 1-5 scales. Among 27 patients who have completed the follow-up to date, utility ratings for family history and WGS information do not differ. However, the patients receiving WGS are assigning higher ratings than patients receiving only family history information about the ability of family history review to satisfy curiosity, explain a condition, explain a family history, provide reassurance, tailor treatments, prevent disease, and identify risks to children. Finding suggests that patients see greater utility to family health history when it accompanies WGS rather than as standalone information. They also rate family history as useful as personalized genetic information. Findings suggest that sequencing may serve as a ‘teachable moment’ for talking about the benefits of understanding family history.

Background: Patients may not recognize the importance of family history in the context of genomic sequencing or as a standalone risk assessment tool.

Methods: Healthy primary care and cardiology patients in the MedSeq Project are randomized to standard of care (SOC), where they review family history, or an arm where they additionally review whole genome sequencing (WGS) results. Six weeks after disclosure, participants rate the utility of information on 1-5 scales.

Results: Among 27 patients who have completed the 6 week follow-up to date, utility ratings for family history and WGS information do not differ. However, patients receiving WGS are assigning higher ratings than patients receiving only family history information about the ability of family history review to satisfy curiosity, explain a condition, explain a family history, provide reassurance, tailor treatments, prevent disease, and identify risks to children. Significant effects were also observed for the ability of family history review to explain conditions, provide reassurance, and tailor treatments. Patients receiving WGS also assign higher ratings to family health history when it accompanies WGS rather than as standalone information. They also rate family history as useful as personalized genetic information. Findings suggest that WGS may serve as a ‘teachable moment’ for addressing the benefits of understanding family history.
**33 PARTNERING WITH PATIENTS AND FAMILIES IN RESEARCH USING A PRAGMATIC FRAMEWORK**

Maureen Fagan, DNP

Maureen Fagan DNP, Celene Wong MHA, Martie Carnie

The American health care system is constantly changing, due to the needs of patients and the demands of the system itself. The concerns about maintaining the high quality of care have led to a beneficial partnership between patients and researchers. This is a relatively new concept in scientific research. The traditional involvement of patients in research studies was solely of participating as passive study subjects. We now know that the patient’s voice and role can impact the scientific research process and findings in many ways. This poster proposes an operational framework for the clinical research process within an academic medical center with an established Patient and Family Advisory Council, based in authentic collaboration between researchers and advisors.

The American Healthcare system is a dynamic domain, constantly evolving due to the needs of patients and the demands of the health care system. The concerns about sustainability and quality of care have changed the focus of the American Healthcare system to adapt and engage in a mutually beneficial partnership with researchers. The decision to include patients as collaborative advisors is a relatively new concept in scientific research. Prior to this representation, the paradigm of patient involvement in research solely consisted of participating as study subjects, not as peer collaborators throughout the entire research process. Within the scope of patient or stakeholder involvement, there are several different possible roles for the individuals to hold and to directly impact scientific inquiry. This poster proposes using a pragmatic framework for the clinical research process within an academic medical center partnering with an established Patient and Family Advisory Council, rooted in authentic collaboration between researchers and advisors.

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**34 MEDICATIONS DURING CARE TRANSITIONS: POTENTIAL CONTRIBUTORS TO MEDICATION-RELATED ADVERSE EVENTS POST HOSPITAL DISCHARGE**

Hilary Heyison, BA

Heyison, Hilary:

Patients may be at risk for adverse events after hospital discharge due to medication discrepancies or adherence issues. The objective of this sub-study is to describe medication-related issues that may lead to adverse events post-discharge as identified by an inpatient pharmacist. Having a greater understanding of patient medication needs around discharge can help practitioners be better prepared to address potential barriers to medication adherence.

Patients may be at risk for post-discharge adverse events due to medication discrepancies or adherence issues. The objective of this sub-study is to describe medication-related issues that may lead to adverse events post-discharge as identified by an inpatient pharmacist. The study population included medical or surgical inpatients at BWH, likely to be discharged home, and with a PCP who belongs to the South Huntington primary care practice. The intervention arm consisted of a multi-faceted, multi-disciplinary transitions intervention, in which inpatient pharmacist determines whether a patient is high risk for post-discharge adverse events using a risk-stratification tool, reconciles medications, identifies barriers to adherence, and conducts medication-related counseling. 42 inpatients received the medication safety intervention. Of the seventeen patients stratified as high-risk, the most common reason was having 10+ preadmission medications (65%, n=11) and three or more high risk medications (71%, n=12). 25% (n=4) of high-risk patients and 10% (n=2) of low-risk patients were identified as having adherence issues. These preliminary findings demonstrate the need for in-depth medication safety conversations and consultation upon transitioning from hospital to home, to help care teams create a plan to overcome barriers to medication adherence and ensure a healthy transition home.
36 IDENTIFYING STRATEGIES TO PROMOTE ADOPTION OF A WEB-BASED PATIENT-CENTERED COMMUNICATION TOOL BY PROVIDERS IN THE ACUTE CARE SETTING

Kelly McNally, BS
Kelly McNally, Diana Stade, Patricia C. Dykes, RN, PhD, David W. Bates, MSc, and Anuj K Dalal, MD

A key goal of patient centered care is forming a patient-provider partnership. Patient centered communication is essential to doing so. It may also improve patient safety, quality of care, outcomes, and costs. Ideally, communication is best when it happens in person. When this is not possible, medical systems have begun to use technology to improve communication among patients and their care teams. One tool that could facilitate patient centered communication is a microblog, a blog that allows members to post and read short updates. Although these tools have become popular in social media, they have not been adopted for use in clinical settings. The purpose of this study is to identify barriers to implementing a web-based communication tool and establish strategies to maximize adoption by providers in the acute care setting.

Abstract: Patient-centered communication tools require provider acceptance to realize their full potential. We identified potential barriers and developed strategies to optimize adoption of the web-based communication tool (a microblog).

Method: We designed a microblog for patients and providers in the acute care setting. We conducted provider focus groups to explore potential uses, perceived impact on workflow, and provider concerns regarding the microblog. Using the feedback, we identified optimal strategies for implementation.

Results: We identified two types of barriers to adoption of the tool. Clinical workflow barriers consisted of 1) accessing the microblog and 2) integrating the tool into demanding clinical workflows. Provider psychological barriers consisted of 1) concerns regarding disruptive new message notifications, 2) fear of providing poor quality patient care by spending less time with patients at the bedside, and 3) malpractice concerns pertaining to communication between patients and providers.

Conclusions: Strategies to address workflow barriers include establishing a time and place to review microblog conversations. Strategies to manage psychological barriers consist of 1) framing the tool as a means to supplement patient care rather than replace existing face-to-face patient care, 2) educating providers regarding appropriate messaging etiquette, and 3) display of support by key stakeholders.
37  ENGAGING PATIENT AND FAMILY STAKEHOLDERS IN DEVELOPING INNOVATIVE PATIENT-CENTERED CARE INTERVENTIONS TO ENHANCE PATIENT EXPERIENCE

Constance Morrison, BA
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We designed a communication tool (Patient SatisfActive® Model) to help providers address patients’ needs, concerns and expectations and to improve patient experience. We also created a web-based toolkit to give patients access to health information and education materials. To make these tools patient-friendly, we interviewed patients and families to get their input. Patients and families also tested the tools. We used their feedback to refine the interventions. We are sharing our results so that other studies will see the value of including patients and families in their research.

Introduction: Patients and families are seldom involved in developing patient-centered interventions. Thus, we engaged BWH Patient/Family Advisory Council members and hospitalized patients and their families in refining a structured communication tool (Patient SatisfActive® Model) and a web-based toolkit, interventions in the Medical Intensive Care units (MICU) and Oncology units.

Methods: Focus group and interview guides were developed based on systematic literature reviews. We held a focus group with four patient and family advisors (PFAs). We interviewed 22 hospitalized patients and families about factors that promote dignity and respect, and to test and refine the tools. Data was analyzed qualitatively for themes and proposed refinements were shared with MICU/Oncology leadership before implementation.

Results: During the focus group, the PFAs shared their hospitalization experiences and gave input on ways to promote dignity and respect within the intervention tools. During the refinement interviews, patient and families tested toolkit usability. The participants’ perspective allowed us to identify clinician behaviors and toolkit functions that might enhance patient experience and promote dignified care. We used this input to refine the Patient SatisfActive® Model and web-based toolkit.

Conclusions: Our experience substantiates the value of incorporating the patient/family perspective in the development of patient-centered interventions.

38  IMPACT PROJECT

Francine Rauch, RN
Francine Rauch, BSN, RN and Jane Davies, RN

At BWH Interventional Radiology (IR), there is no information to teach patients about long term intravenous (IV) access placement. It is called a central venous catheter (CVC). A group of IR nurses worked together to decide on what information was needed to be given to patients. Teaching materials from other areas was considered. Instructions were written over 3 months.

3 important teaching basics were recognized:
1. Where to go
2. Arranging for someone to take the patient home after sedation
3. Questions about medications

Patients need information to teach them about CVC placement. Instructions have been written to help patients understand what to expect. There is a plan to put the instructions on the internet for easy patient access in the future.

There is no standard patient education content or instructions for patients that undergo Central Venous Catheter (CVC) insertions at BWH Interventional Radiology (IR).

Incorporated best practices and collaborated with IR staff nurses to identify necessary core content and developed an approach for providing the resulting information to the patient population. Over the course of 3 months we collaborated informally on drafting instructions and on 2 occasions met as a group to agree on the content that needed to be included.

Guided by the nursing pre-procedure evaluation tool from the BWH Weiner Center, we then developed our own unique patient instructions using expert clinical knowledge and judgments. We also addressed answers to common questions from patients.

We identified 3 main areas of knowledge deficit:
1. Directions to BWH and the IR waiting room
2. Securing transportation when receiving IVCS
3. Medication guidance and NPO instructions

Patients are lacking information and instructions relating to IR procedures. Through our collaborative efforts we developed written content to address these areas of knowledge deficit. Using technology, the next step would be to incorporate these instructions onto our CPOE system and on our IR website so that they can be automatically provided to patients.
39 DEVELOPING AND TESTING AN INTERDISCIPLINARY PATIENT-CENTERED PLAN OF CARE

Diana Stade, BS
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Patients want easy access to personal health information while in the hospital. They also want to take part in their recovery. In this study patients and families can use tablets in their hospital room during their visit to participate in their plan of care. These tablets are located in four units in inpatient intensive care settings. We explain how we made it possible for providers to share information with patients on the tablets. Patient and family members can now view problems, care team goals, and a schedule that is tailored to their visit.

In a previous study, a web-based patient portal was developed to provide patients with clinical information at the bedside. User-feedback showed that patients want further information about their plan of care, specifically, clinical problems and goals. To provide patients and caregivers with a documented plan of care, there must be concordance among providers and a consistent means to deliver information to the patient and caregivers on devices at the bedside. Currently, diagnoses, other clinical problems, goals of care, and safety measures are documented in several places across disciplines. This information, which is documented by nurses, physicians, physician assistants, and sub-specialists, must be reconciled in order to develop an interdisciplinary plan of care. We conducted chart reviews and compared clinical documentation across nursing and non-nursing clinicians, collected end-user requirements for a shared web-based workspace, conducted rapid design of web-based plan of care documentation that can be easily transferred to the patient portal, collected user feedback, and iteratively refined the designs and ultimately, web-based productions. This methodology was successful in developing an interdisciplinary patient-centered plan of care which is now accessible in the MICU units 3B and 3C, as well as oncology units 4B and 4C at Brigham and Women’s Hospital.

40 UTILITY OF A CUSTOM IPHONE AND ANDROID SMARTPHONE APP TO MONITOR PHQ-9 DEPRESSION SYMPTOMS IN REAL TIME IN PSYCHIATRIC OUTPATIENTS.

John Torous, MD
John Torous, Charlie Lin, Meghan Shanahan, Pamela Peck, Patrick Staples, J.P. Onnela, Matcheri Keshavan

The symptoms of depression can at times be so severe that they impact the way we think and remember. Sometimes it is difficult to tell a doctor how depression makes us feel. But now with smartphones, it is possible to record symptoms of depression in ‘real time’ and ‘real life’ and have those responses saved and sent to your doctor. In this study we investigate the utility of an iPhone and Android smartphone application to monitor to symptoms of major depressive disorder. We studied how 13 patients with major depressive disorder used the application for one month and concluded that smartphones may offer a feasible and convenient as well as accurate means to monitor the symptoms of major depressive disorder.

Introduction: Retrospective recollection by patients is a mainstay of assessing symptoms in psychiatry. However, these retrospective recollections may not be as accurate as data collected through the Experience Sampling Method (ESM) which captures patient data in “real time” and “real life.” However, there is currently limited data regarding the feasibility and validity of using smartphone applications to track psychiatric symptoms.

Method: We created a novel and custom iPhone and Android application, Mindful Moods, to monitor patients’ PHQ-9 symptoms of major depressive disorder in real time. We piloted the application on patients suffering from depression. Each patient utilized their personal smartphone and downloaded the app from the iTunes or Android store and used the app for one month. The application prompted patients to take mood surveys several times per day at random.

Results: Use of the application was feasible and the data had good correlation to traditional metrics of depression. 13 subjects used the application for one month without difficulty. Adherence with survey sessions was high.

Discussion: Monitoring mood symptoms in patients suffering from depression via a smartphone is feasible and practical. This technology offer psychiatry a new avenue to monitor and treat mental illnesses.
41 MULTIDISCIPLINARY ERAS CHECKLIST

Lauren Wolf, RN
Lauren Wolf, Sarah Thompson, Elizabeth Doane

The Enhanced Recovery after Surgery (ERAS) is a new way to take care of surgical patients in a hospital. It is different from the old ways. This new approach has proven to be better for surgical patients. They heal faster. The ERAS plan only works if nursing and medical personnel work together with the ERAS plan. The BWH colorectal department decided to try the ERAS approach to see if care of the patients would be better over time.

A checklist was developed by nurses to help the healthcare team follow the new ERAS changes. The checklist contains four key parts: 1. Patient/Family understanding of ERAS, 2. Patients take pain medications before surgery, 3. Fluids are limited in the operating room, and 4. Patients get out of bed a lot and chew gum!

The checklist helped us review our progress with each patient. We also could see if nurses were filling out the checklist or if we needed to do more education. The checklist helped us to see that a consistent approach with ERAS patient care in the ERAS program helped patients heal faster. After a month, we know that the ERAS checklist is valuable in supporting the ERAS plan.

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Conclusions: Our experience substantiates the value of incorporating the patient/family perspective in the development of patient-centered interventions.