

Case Review: Journey for Developing a Patient-Centered Education Model

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Abstract

Healthcare places patient-centered care at the forefront of medicine recognizing that involving patients in their care leads to better health outcomes and quality of life and may reduce hospital readmissions. Bronfenbrenner's Ecological Framework addresses the multiple layers and their interdependence from the patients' perspective and the healthcare system arena. Involving patient's in their care and embracing the ecological framework coupled with accreditation requirements that healthcare organizations provide education that respects the health literacy, cultural beliefs and norms and cultivates patient-provider relationships led authors to conduct a case review on the journey for developing a patient-centered education model. The purpose of this case review is to show how one large Midwestern acute inpatient rehabilitation facility developed a patient-centered education model to meet the needs of patients, caregivers, and families. Results demonstrate the utility of the model, implications for Advanced Practice Registered Nurses, and the next steps for implementation, which internal stakeholders confirmed.

INTRODUCTION

Health care organizations are faced with many challenges, including cost-containment, prospective payer systems, managing patient satisfaction scores, government and regulatory mandates, pressure to deliver patient-centered care and preparing patients to function at home and in the community after discharge. Patient-centered care is defined by the Institute of Medicine "Care that is respectful of and responsive to individual patient preferences, needs, and values ensuring that patient values guide all clinical decisions",¹, p. 40 Patient-centered care has been at the forefront of nursing, allied health, social work, psychology, medicine, spiritual care and other healthcare professions for the past several decades. While many models of patient-centered care exist with similar attributes, there is a dearth of literature on patient-centered education models (PCEM). Patient education is a Joint Commission requirement for hospital accreditation; the hospital provides patient education and training based on each patient's needs and abilities (PC.02.03.01) and assesses the patient's understanding of the educational material.² In theory, education is an important interaction among patient, provider and caregiver/family members that begins at admission. However, barriers may exist at four levels. These levels are:

1) individual patient characteristics such as, lack of motivation; 2) healthcare providers may not have relevant tools or skills to solve a particular problem; 3) organizations may struggle with particular problems such as, inadequate staffing patterns; 4) communities may lack resources or funding to meet the needs of their population, such as, adequate housing.³ These barriers can negatively influence patient-centered care and education.

With this in mind, these authors provide a case review of an acute in-patient rehabilitation facility's (IRF) journey developing a patient-centered education model (PCEM) aligned with Bronfenbrenner's Ecological Framework⁴ to deliver patient-centered education. The purpose of the case review is to document the process that the authors used to create a PCEM. The creation of the PCEM is based on tacit knowledge; that is, knowledge based on experience, values, and is transferred through mentoring⁵, a literature review, and feedback from colleagues. Advanced Practice Registered Nurses (APRNs) are pivotal healthcare providers functioning in a complex healthcare system. APRNs have unique insights and experiences that contribute to providing patient-centered care and hence delivering patient-centered education.⁶ Authors suggest implications for APRNs at the

end this case review.

BACKGROUND

In-patient rehabilitation facilities (IRFs) have experienced shorter lengths-of-stays combined with greater medical complexity of patients. These factors point to the need to educate patients and families/caregiver in a condensed period. Since, 2003 the Family Resource Center (FRC), operated by four education program managers, a medical librarian, and a manager, has functioned as the epicenter for patient and family education at this IRF.

The focus of this case review is an IRF located in a large Midwestern urban community. In March 2017, the facility opened its doors serving the world as the first-ever “translational” research rehabilitation hospital where clinicians, scientists, innovators and technologists work together in the same space, applying research real time to physical medicine and rehabilitation. The IRF is a 242-bed acute in-patient rehabilitation facility composed of five innovation centers. The five innovations centers are: 1) brain; 2) spinal cord; 3) nerve, muscle and bone; 4) pediatrics; and 5) cancer. As the reputation for being the top rehabilitation institute in the United States (US) for 27 years, this facility attracts patients worldwide.⁷ Meeting the needs of worldwide populations is a priority of the organization. One way of meeting patients’ needs is through the Global Patient Services (GPS) and Interpretive Services departments. These departments provide support including interpreters to patients and families from a variety of cultural and ethnic groups for whom their primary language is not English. In addition, GPS consults with clinical staff on various cultural issues.

In July 2012, the IRF’s Outcomes Management Systems Analysis (OMSA) department began using Press Ganey scores for all inpatient units and in September 2016 for outpatient and day rehabilitation programs. Leadership reviews monthly summaries. Press Ganey has three questions most reflective of overall patient education which are: 1) training given regarding home care; 2) staff prepared [you] to function within the community; and 3) staff prepared [you] to function at home. The overall section scores for inpatient units have been consistently around the 50th percentile. For March 2018-April 2018, the two variables of these three most influential survey items by correlation with Aggregate Overall Care (AOC-roll-up average score for all questions & all respondents) were: 1) staff prepared [you] to function in community (overall

section) and 2) staff prepared [you] to function at home (overall section) – personal communication with OMSA, May 10, 2018.

For rehabilitation, it is customary that an interprofessional team provide patient education. Advanced Practice Registered Nurses (APRNs) are often part of the inpatient care team and directing patient care. APRNs are socialized during their advanced education to decrease fragmentation through collaboration^{8,9} and to transform healthcare in America. Professionals provide education within their respective practice using a variety of methods (written, verbal, and multi-media) and in a variety of formal and informal settings (group, individual, and family meetings). Subsequently, the senior vice president and chief operating officer commissioned the FRC to develop a patient education model. These authors, for which the primary author is an advanced degree nurse, realized that creating a model of patient-centered education that did not interfere with the substantive nuances of each profession was essential to this journey. The FRC team needed to develop a model that resonated with all professions, was adaptable to whatever substantive area of education necessary, and could be incorporated into every patient-provider interaction.

PROBLEM STATEMENT

Despite health care reform, 24 million people in the US still lack healthcare coverage and the number of underinsured increased from 28% in 2014 to 45% in 2016.¹⁰ According to the 2012 data from Centers for Medicare and Medicaid Services (CMS)¹¹, Medicare beneficiaries have five or more chronic health conditions. Subsequently, patients discharged from an acute in-patient hospital find that they and/or their caregivers lack sufficient education to manage at home or in the community, which contributes to hospital re-admission 30-days post discharge.¹² Many factors, including culture, community resources, and literacy level influence the delivery of patient education.

Providers feel pressured to educate patients and families at a time that is most convenient for providers rather than convenient or useful for the patient and family. This pressure stems from the healthcare system often placing a higher value on task delivery versus teaching.¹³ These authors reviewed the literature on topics at the forefront of patient education, healthcare coupled with their collective experience to develop a PCEM to meet the needs of the IRF.

LITERATURE REVIEW

Experience and educational background pointed the authors to have the patient, family and caregiver at the center and be the driver of the model. Logically, the model would be consistent with an ecological framework (person, community, and society) because the FRC focuses on the person, family, community, and resources. Moreover, critical components of a model would need to include health literacy, cultural respect, the ability to extrapolate the Institute of Medicine's (IOM) Six Aims into education and the patient-provider partnership. This literature review consisted of searching the past 10 years in PubMed and CINAHL using the following Mesh terms (which were adapted for CINAHL): patient centered, patient centered education models, health care provider or health personnel, professional-patient relations and cultural competency, respect and health literacy. The authors examined government websites and organizations for information on IOM Aims.

Patient Education Models

Results showed two participant-centered educational models. The first is the EDUCATE Model¹⁴ which focused on strategies to improve communication when providing verbal education to patients. The second, a client-centered nutrition education model focusing on the relationships among elements within the organization and environment for building the WIC nutrition program.^{15,16} In addition, a dearth of literature on patient-centered care models focused on hospital discharge, patient preferences, or system changes for specific populations, such as persons with diabetes or older adults.¹⁷⁻²³ However, the aforementioned models did not correspond with the population needs for a patient-centered education model for this inpatient rehabilitation population.

Bronfenbrenner's Ecological Framework

Bronfenbrenner's Ecological Framework⁴ was central to the literature review because it provides a way for the authors to conceptualize the environment for which patients and the healthcare providers function. This framework purports that there are five levels, or sub-systems of interaction. These levels are the:

1. individual, which includes knowledge, attitudes, culture, religious beliefs, cognition, overall well-being, and skills;
2. interpersonal, which includes, family, friends, social networks, and relationships with healthcare providers;

3. organizational, which includes social and corporate institutions;
4. community, which includes the relationships among organizations, community resources, and re-integration opportunities; and
5. socio-economic and public policy at the state, national and local levels, which includes laws and regulations.⁴

The interaction among levels is multidimensional (comprised of many networks and layers), complicated (has many moving parts), complex (unpredictable), dynamic (ever-changing), and fluid (flexible, permeate across sub-systems).²⁴ For example, the patient's health status fluctuates across a continuum of health and wellness, which impacts educational needs and healthcare resources. Simultaneously, healthcare regulations change, which may place intended and unintended consequences on the providers and the IRF.²⁵

For this case review, an ecological framework allowed the authors to consider all the sub-systems of the patient, the IRF and healthcare system and the interrelationship between the individual and his/her environment. The implication of the ecological framework is that a patient-centered education model includes the system of care for the patient and other key people, e.g., family, caregiver, and care team. The model recognizes patients and their families/caregivers as "partners" to incorporate them in the education process; adapts educational methods to coincide with patients, families and/or caregivers changing needs; and capitalizes on individual, interpersonal, community, organizational and healthcare system resources.

Furthermore, the framework implies that patient-centered education occurs within the IRF, while at the same time realizes that clinicians are part of the IRF, the IRF functions within a community, the healthcare system, which is affected by regulatory and accreditation bodies, policies, and socio-economics. As a result, opportunities exist for providers to capitalize on favorable internal resources, e.g., interprofessional teams, staffing patterns, educational software programs and external resources or networks, e.g., community stakeholders, such as Independent Living Centers and condition specific associations, and to meet the unfavorable realities that patients face, such as lack of affordable healthcare, accessible housing, and jobs. In essence, Bronfenbrenner's Ecological Framework⁴ shows that while patients are at the center of the model, patient-centered education happens within the context of a larger healthcare arena.

Patient-Provider Partnership

It is much more important to know what sort of patient has a disease than what sort of a disease a patient has.--Sir William Osler, MD

Patient-provider partnership has been a concept trending the literature for the past several decades. It has many meanings, but the thrust is that patients and providers are on a level playing field; both parties have the role of giving and receiving information and communicating in a two-way process whereby the sender conveys the intent of their message and the receiver understands the meaning of the message. It requires that the patients, families and caregivers have an active role in care, which traditionally has not been the case in healthcare. Literature shows that creating this relationship allows for better health outcomes, satisfaction with healthcare and better recovery.^{5,26-28}

For the purpose of this case review and for developing the PCEM, patient-provider partnerships are relationships based on mutuality. Providers and patients exchange information, assume the role of teacher-learner, are accountable for informing and learning about the patient’s health and those factors that affect the patient’s health status. The ultimate goal is for patients to make informed decisions about their healthcare and to efficiently navigate the healthcare system.

Institute of Medicine’s Six Aims

Patient-centered medicine actually dates back to the ancient Greek School of Cos.²⁹ The IOM defines patient-centered care as: "Providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions" in the landmark 2001 report, Crossing the Quality Chasm.¹ The IOM employs Ferlie & Shortell’s healthcare systems approach, which looks at the individual, the team, the organization(s), and larger system to promote change.³⁰ Patient-centered care has received recognition and momentum in the literature with the publishing of the aforementioned IOM’s landmark report on bridging the gap between what we know to be good quality health care and what actually existed. Two highly regarded government and non-for-profit organizations--the Agency for Healthcare Research and Quality (AHRQ) and the Institute for Healthcare Improvement (IHI) subscribe to these aims as the foundation for innovation.

Thus, any model would be remiss if it did not include the Six Aims: Timely, efficient, patient-centered, equitable,

evidence-based, and effective. Authors illustrate the definitions of these concepts and apply them to patient-centered education as shown in Table 1.

Table 1
Health Care Quality: Institute of Medicine (IOM) Six Aims Applied to Patient-Centered Education Model

| Six Aims | IOM Definitions (2001) ³¹ | Authors Application of Six Aims to Patient-Centered Education |
|------------------|---|--|
| Effective | Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and misuse, respectively); | Sharing up-to-date knowledge available based on evidence, e.g., using the most recent research and clinical expertise; |
| Patient-Centered | Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions; | Delivering education using proven methods based on patient preferences; e.g., education exchanged within the healthcare system occurs in a manner that has been deemed trustworthy by provider and is delivered through multiple modalities compatible with the needs of the individualized patient's life span; |
| Safe | Avoiding harm to patients from the care that is intended to help them; | Ensuring patients/families/caregivers master the necessary skills to safely manage the patient's healthcare, e.g., ensuring the family can manage the tracheostomy of a person with a high-level spinal cord injury; |
| Timely | Reducing wait times and sometimes harmful delays for both those who receive and those who give care; | Patient-provider interactions occur when patient/family can fully engage in learning opportunity, e.g., educating a patient when he/she is rested and able to focus; |
| Efficient | Avoiding waste, including waste of equipment, supplies, ideas, and energy; | Using cost-effective approaches delivered through multiple modalities compatible with the individualized patient's needs, e.g., using group education; |
| Equitable | Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status (IOM, 2001). | Providing health education regardless of the patient's ability to pay, their individual preferences, culture, or health literacy level, e.g., educating a person who is underinsured using the same resources as someone who is fully insured. |

CULTURAL RESPECT

The journey of a thousand miles begins with one step. Lao Tzu

When searching the literature on culture, authors found the following terms used interchangeably: cultural awareness, cultural sensitivity and culture. Consistent with Campina-Bacote’s cultural competence, which consists of five interdependent constructs: 1) cultural awareness, 2) cultural desire, 3) cultural skill, 4) cultural knowledge, and 5) cultural encounters (2002), cultural respect is an ongoing attribute that requires dedicated professional and organizational resources. Cultural respect implies knowing the customs/norms of the culture-awareness, not assigning value to cultural norms-sensitivity, and using methods/demonstrates behaviors to accommodate the patient’s culture and cultural preferences-respect (beliefs, customs, values, language). Cultural respect is defined as the recognition, protection and continued advancement of the inherent rights, and traditions of a particular group.³² Cultural respect relies on the provider’s commitment to on-going learning, self-reflections and critique to respect cultural norms of various groups that include sexual orientation and preferences.^{33,34} Often, unconscious bias interferes with effective delivery of healthcare and

perpetuates health disparities.³⁵

According to the NIH, 2017, cultural respect is important to decreasing health disparities and improving access to quality healthcare, respectful and responsive to the needs of diverse patient populations. Recognizing cultural respect is a key variable for reducing health disparities and ultimately improving access to care. Health care quality and access to care are suboptimal, especially for racial and ethnic minorities and low-income groups.³⁶ Ultimately, the providers are individuals working within an organization and they must recognize, even under the best of circumstances, there will still be some challenges. However, capitalizing on organizational and community resources is necessary to comply with accreditation bodies such as the Joint Commission.

Health Literacy

Health must be universal
language...Everyone has the right to know,
the right information, at the right time, in a
way that leads to
understanding....anonymous.

Health literacy is defined as the ability to read, understand and apply the information to make decisions for the patient's healthcare or for the healthcare of others for whom they may be responsible.³⁷ We used this definition for constructing the PCEM. According to the 2003 National Assessment of Adult Health Literacy 12% of the population age 16 years and older had a proficient health literacy; 53% were intermediate; 22% were basic; & 14% were below basic.³⁸ Some factors effecting health literacy are: age, developmental stage, cognition, physical emotional health, educational level, or primary language, and medications. Health literacy is not equated with the educational level of patient/family/caregiver.

Several tools exist to assess health literacy. Health literacy is positively correlated with compliance, health outcomes, and quality of life.³⁹⁻⁴² Patient education is a Joint Commission requirement for accreditation; the hospital must provide training specific to the patients' needs (PC.02.03.01); the hospital performs a learning needs assessment to identify cultural and religious beliefs, emotional barriers, motivation to learn, and any communication barriers (EP1). The hospital respects the patient's right to receive information in a way he/she can comprehend (R1.01.01.03).⁴³

After assessing health literacy, the next step is helping the patient gather basic health information by using the "AskMe3" strategy where the patient tells the clinician what he/she is most interested in learning.⁴⁴ Nevertheless, providing education that accommodates patients' learning style is key to the patient-centered education process. Thus, using multiple methods that include assistive technology, seizing every encounter as an opportunity for teaching, and assessing comprehension is part of addressing health literacy even for the most challenging situations.⁴⁵

With this in mind, understanding the information given; ensuring that they know how to use it to make informed decisions; listening to understand patient's motivation; asking the patient how he/she prefers to receive information are all key factors in addressing health literacy. Once clinicians assessed health literacy, they can provide education that accommodates the patient's health literacy needs and can assess the patient's level of understanding. The gold standard for assessing whether or not a patient understands is the teach-back technique. Teach-back technique means the provider asks the person to explain the information that they learned, asks the person to demonstrate what they are going to do or a skill, and takes the time to clarify any differences.

Literature Review Summary

In summary, this literature review demonstrates that the Bronfenbrenner's Ecological Framework⁴ helps to clarify the complexity and multiple dimensions for the patient as well as the healthcare organization. To recap, these layers are always responding to input from the environment, using this input to create a state of equilibrium for survival. Patient-centered care is seen throughout the literature as a driving force for healthcare quality and patient outcomes. Within the domain of patient-centered care, rests the provision for education. Authors relied on their experience and the literature review to highlight the following key components to include in a patient-centered education model: health literacy, cultural respect, patient-provider partnership, and the IOM Six Aims. This experience and literature review coupled with framework supports the evolution for placing the patient/family and caregiver at the center of any model. Methods illustrate the process for supporting the PCEM for this case review.

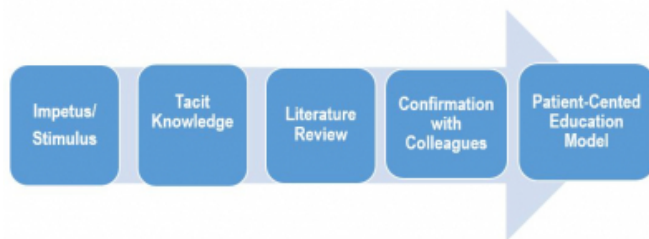
METHODS

The authors used a case review to describe the journey of developing the PCEM (see Figure 1). Once the authors

prepared the PCEM, they engaged in a didactic presentation with colleagues throughout the IRF for review. The IRB determined this case review was not human subject research.

Figure 1

Journey for Developing PCEM

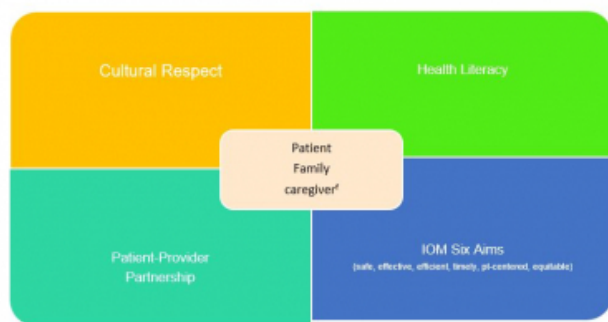


Procedure

As stated earlier, the aforementioned recommendation to develop an education model came from the senior VP and COO. Based on the authors' tacit knowledge, they reviewed and summarized the literature, which resulted in the creation of the Patient-Centered Education Model. (Refer to Figure 2.) Subsequently, the authors created a PowerPoint® presentation. The IRF's Media Design Team reviewed the presentation.

Figure 2

Patient-Centered Education Model



During the period from July 2016 through May 2018, authors presented the model to 58 internal stakeholders, which included members of the leadership team, nurse managers FRC Team, the nursing research council, and the former Patient Education Advisory Committee (PEAC). Representatives from these leadership teams attended a one-hour presentation on the PCEM to support PCEM based Knowles adult-learning principles (1980) describing that adults learn when they: perceive there is a need, actively participate, the behavior is reinforced, and are given opportunities to practice new skills.⁴⁶

The didactic presentation included the authors:

- Setting the stage for humility by acknowledging the audiences' experience stating that they collectively had over 100 years of experience in patient education, much more than the authors;
- Introducing the impetus for developing a PCEM which included a general statement about this facility's Press-Ganey scores on items worded as "...Training given to you and your family about care after discharge; How well staff prepared you to function at home?; How well staff prepared you to function in the community?" and the executive leadership's recommendation for the FRC to have a model for patient education;
- Conducting a role play exercise using a factious case sometimes based on real life experiences without any identifying information and facts illustrating the antithesis of the model that resonated with the respective disciplines;
- Presenting the PowerPoint® of the PCEM, which includes the ecological framework with patient, family and caregiver in the center, the purpose of the model, and the PCEM components (health literacy, cultural respect, patient-provider partnership, and the IOM Six Aims);
- Redoing the role play to illustrate the application of the PCEM;
- Reviewing participants' learning by playing a 10-minute jeopardy game, designed by the authors, with questions related to components of the model. Some questions required remembering what they learned from the presentation, while others required extrapolating and applying what they learned. For example, a question regarding health literacy would read, "Which of the following DOES NOT directly apply to health literacy?"

- a. Ability to process health information
- b. Ability to know how to obtain health information
- c. Ability to use services needed to make appropriate health decisions
- d. Ability to compute and problem solve in order to manage health care
- e. Ability to pay for health care.

The answer would read on the next slide as: E. Ability to pay for health care.

- Asking all participants to provide verbal feedback at the end the presentation for the purpose of gaining support and buy-in.

Analysis and Results

The authors reviewed anecdotal comments during a debriefing held immediately after the presentations. All participants supported the utility of the model. All additional comments related to structure and process of presentation and ideas for dissemination or next steps for implementation.

- Comments were used to:
 1. Include the caregiver in the center with patient and family;
 2. Add a slide explaining Bronfenbrenner's Ecological Framework⁴ (the mental model behind the PCEM), and fluidity of the healthcare and patient systems;
 3. Format slides to leave plenty of white space for ease of reading;
 4. Revise the structure of the presentation and captivate the audience's attention upfront by including a role play at beginning that will be revisited at the end;
 5. Elicit participation by asking participants for examples of each component to engage them in learning process and make it meaningful;
 6. Clarify components of the model by re-wording the slide on cultural respect;
 7. Illustrate the Six Aims with a case example;
 8. Summarize the presentation by including a slide that depicts a puzzle with each component illustrating that all components are necessary for this model of patient-centered education;
 9. Shorten and revise jeopardy game by decreasing the number of questions from 12 to 8 questions and changing the questions related to cultural respect to reflect information in presentation;
 10. Ensure next steps for implementation by creating a plan to disseminate the PCEM and ensuring that all FRC staff were trained on presenting the PCEM for teaching all clinical staff at the IRF.

The purpose of patient-centered education model is so the patient can make informed decisions, navigate the health care system and access resources to manage his/her own care. Ultimately, the goal is to improve quality of life and potentially decrease costs due to unplanned re-admissions 30 days post-discharge.

LIMITATIONS

Two limitations were identified. The first limitation is that by virtue of being a case review, findings are not generalizable to other settings and the PCEM may not transfer to other settings. The second limitation is that the authors' tacit knowledge and expertise played a key role in driving the literature and journey for developing the PCEM, which means that it is not free from bias.

IMPLICATIONS FOR ADVANCED PRACTICE REGISTERED NURSES

APRNs by virtue of their higher education and socialization into practice are part of interprofessional care teams even serving at times as the care team leader. Educating and teaching patients and families about managing their care are hallmarks of for APRNs scope of practice. The IOM Future of Nursing Report⁶ promotes that the healthcare system expand the leadership opportunities for APRNs to cultivate

diffuse collaborative improvements, engage in lifelong learning, and prepare them to lead change for the advancement of healthcare.⁶ APRNs have the capabilities to provide healthcare to a complex and culturally diverse population across the lifespan. As healthcare providers, APRNs can champion the PCEM as outlined in the following section.

DISCUSSION AND NEXT STEPS FOR ALL HEALTHCARE PROVIDERS

Bronfenbrenner's Ecological Framework⁴ promotes the consideration of resources beyond the healthcare organization and requires one to appreciate the environment of origin for which patients and families return. Such a framework enables providers to be realistic in providing education that centers on the welfare and reality for patient, family and caregiver. Whereby, providers see functionality in the context of total environment that begins with patient and extends beyond community to the larger healthcare and policy arena.

This case review illustrates the necessity of patient, family and caregiver to be at the center of all interactions and patient-centered education whereby cultural respect, health literacy, patient-provider partnership and the Six Aims of Medicine are congruent with all interactions. These authors summarize the next steps for implementation that address structure, process and outcomes.

Use a Multi-prong Approach-Structure:

- Inaugurate the PCEM with a one-hour face-to-face education luncheon and session for all allied health staff, care managers, and nursing held in the IRF auditorium. Use the format described in procedures;
- Use software for web-based learning and store on intranet;
- Create on-line yearly competency for all newly hired clinical staff;
- Seize every learning opportunity by which FRC staff rotate doing presentations at the unit-based staff meetings and discipline-specific meetings.

Cultivate Interprofessional Teams-Process:

- Embrace and demonstrate that subscribing to a PCEM "takes a village" so capitalize on system-wide resources to address gaps;
- Equip oneself with humility so that everyone's voice is heard;
- Respect interdependence, know that systems are complex and dynamic requiring on-going modifications, new talents, and diffuse boundaries that span across prescribed roles.
- Utilize APRNs as champions of the PCEM within the IRF and care teams.

Assess-Outcomes:

- Distribute an evaluation form to participants post-presentation and track the PCEM competency;
- Evaluate patient education materials for quality and integrity;
- Re-visit the community needs assessment to ensure resources are consistent with population's attributes;
- Examine Press-Ganey Scores related to patient education and preparation for discharge.

To summarize, this model addresses four key components: cultural respect, health literacy, patient-provider partnership, and the IOM Six Aims with the patient, family and caregiver at the center of the model. The model is comprehensive and designed to assist staff with building their skill in delivering patient-centered education. By staff being cognizant of the patient and healthcare level systems and interactions, they can capitalize on the synergistic relationship between the two systems to benefit patient education and access resources. Moreover, the model cues staff to develop a systems thinking mindset whereas they can see a larger picture encouraging teamwork and collaboration within IRF, the community and healthcare system as a whole.

Furthermore, the model can be used at each patient interaction to lead the patient, family and caregiver to make informed decisions, navigate the healthcare system and access resources to manage his/her own care with the ultimate goal of improving quality of life and potentially reducing hospital admissions.

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