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Creating a More Collaborative Tomorrow: Development of a Patient Engagement Curriculum for a School of Nursing and Health Professions

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Abstract

Background: Healthcare has been moving steadily toward a patient-centered paradigm that seeks to involve patients more in their own care. Teaching communication skills to future health professionals can increase such patient participation. Despite the shift to patient-centered care, there is almost no training in patient engagement techniques provided to students at the University of San Francisco School of Nursing and Health Professions. *Purpose*: This project aimed to design and develop a sustainable patient engagement curriculum that meets the unique needs of faculty and students at the University. *Methods*: Interviews were conducted with eight faculty members to understand the best format, timing, and content for the curriculum. A course with modules covering patient engagement techniques was created in a learning management system (LMS), which allows faculty to modify and import modules into their own existing courses. The modules cover the concepts of patient engagement, shared decision making, health coaching, decision aids, common communication barriers, and cultural competence. *Results*: Faculty who reviewed the course were overwhelmingly positive, because the modules meet their need for a combination of online didactics and in-person simulations that are easily accessed, modified, and merged with existing courses. Students who attended two pilot in-person workshops wanted greater variety in simulation scenarios but reported a better understanding of patient engagement and comfort with sharing decisions with patients. *Conclusions*: Using an LMS to distribute learning modules about patient engagement techniques may help faculty build student knowledge over time and create opportunities for interprofessional training.

Key words: health education, patient engagement, patient-centered care

Executive Summary

Problem Statement: Patient engagement occurs when patients, families, and providers are working in active partnership to improve their health and healthcare (Carman et al., 2013). Studies show that patients want more information than they are given about their care options and that as many as 50% of patients leave the doctor without understanding what was said (Friesen-Storms, Bours, van der Weijden, & Beurskens, 2015; Bodenheimer, 2007). Involving patients more in their care has been shown to improve care satisfaction, patient safety, healthcare costs, and health outcomes (Carman et al., 2013). Fortunately, many evidence-based techniques, such as shared decision making (SDM) and health coaching, are available to help providers increase patient knowledge and control over their healthcare (Charles, Gafni, & Whelan, 1997).

Experts emphasize the extraordinary potential impact of incorporating evidence-based patient engagement techniques into health profession education; however, this does not appear to be routinely done and there is no standard approach to integrating such skills into established curriculums (Stiggelbout, Pieterse, & De Haes, 2015; Hauer, Carney, Chang, & Satterfield, 2012). According to adult learning theory and studies of medical school curriculums, communication skills courses should include a mix of didactic and interactive components including simulated scenarios. That said, Hauer et al. (2012) and Ickes and McMullen (2016) recommend further study on best practices for including patient engagement techniques in health professions' curriculums. Targeting students with patient engagement techniques has the potential to have far reaching effects on the healthcare system as these students become health care professionals locally, nationally, and around the world.

Project Aim: Given strong evidence for the positive impact of patient engagement on health outcomes, patient and provider satisfaction, and healthcare costs, this project aimed to

sustainably incorporate trainings on shared decision making, health coaching, and other patient engagement tools into the curriculum at the University of San Francisco (USF) School of Nursing and Health Professions (SONHP). In response to faculty needs, the project included the design, development, and evaluation of online modules covering evidence-based patient engagement techniques. By putting the modules into a learning management system (LMS), faculty can easily access, modify, and incorporate modules into their existing courses.

Methods: A needs assessment was conducted through semi-structured interviews with eight faculty members interested in patient engagement and representative of various departments in the SONHP. A course, with eight modules containing a mix of learning materials supplemented by in-person role plays, was then created in an online LMS. Input was collected on the complete patient engagement course content from two faculty members with knowledge of patient engagement and a high enthusiasm for using the course modules. Two workshops were held to pilot the in-person material. Workshop participants provided feedback through verbal discussion and in writing by answering the question, “How has your view of patient engagement changed as a result of the workshop?”

Results: Faculty value easily accessing and modifying online materials for use in existing courses as well as providing students an opportunity to practice patient engagement skills in-person. The online course has eight content modules covering patient engagement, shared decision making, health coaching, common communication barriers in healthcare, and cultural competence during patient encounters. There are three additional modules providing in-person materials, role plays, and other additional resources. Annotations are included on all materials to help faculty decide what to import into their courses.

Faculty found the content to be “organized and easy to follow.” Students enjoyed the interactivity of the workshops, but requested greater variety in simulations, more emphasis on personal experiences, and an introduction to these techniques earlier in their academic programs. One student said, “I think the session was particularly helpful in providing conversation starters and best practices in engaging our patients. Sometimes we get in the habit of assuming patients don’t want as much buy-in in the care --- therefore by providing questions that evaluate the desires of the patient is wonderful.”

Implications: The use of an LMS to provide a repository of materials on evidence-based approaches for effective patient engagement, coaching, and decision-making could be generalized to other schools and maximizes accessibility and flexibility for faculty to import pre-organized content into their own courses. The material can be used to build student knowledge as they complete their degrees or in an interprofessional setting to meet core competencies now required in nursing schools. Collaborating with a simulation center could help meet student requests for greater variety in role-plays. Many students had not thought about engaging patients in their care and one claimed, “this is the first time I thought of [patient care] as a collaborative experience, this was the first time I had made that connection.” Following this project, faculty uptake of modules should be monitored, and further feedback should be gathered about format, timing, and content.

Introduction

Over the last two decades there has been an extraordinary paradigm shift toward patient-centered care that seeks to involve patients at a greater level in their own medical journeys. In the traditional patient-provider interaction, the provider tells the patient what to do, expecting the patient to act on that advice without hesitation. Today there is growing recognition that a patient's values, preferences, questions, and concerns are important when making care decisions and that patient input can improve health outcomes and the healthcare experience. However, across the health care system, there continue to be inadequacies in and challenges to engaging patients in their own care.

Physicians tend to believe that they devote more time during a patient visit to engaging and teaching the patient than they do. In an audiotaped study of 336 patient encounters, physicians estimated that they spent an average of 8.9 minutes per visit providing information, but the tapes revealed that they spent an average of only 1.3 minutes performing this task (Ghorob, 2013). The study found that 88% of the information was in technical language and not well understood by the patients (Ghorob, 2013). Other studies have similarly shown that patients leave the doctor's office or hospital with informational gaps. As many as 50% of patients leave the doctor without understanding what was said (Bodenheimer, 2007). Immediately following the visit, patients forget 40-80% of the information they were given and fully half of the information retained is incorrect (Agency for Healthcare Research and Quality, 2015). Additionally, physicians interrupt patients quickly and often fail to ask patients about their goals for the visit (Zikmund-Fisher et al., 2010). From this data, it is not hard to see why patients do not adhere to provider instructions and how great frustration can build up on both sides of the encounter.

The patient-provider dynamic is thought to be one factor keeping patients and families from engaging with clinicians in meaningful dialogue. Providers are automatically in the position of authority and are seen by the patient to hold a prestigious position of expertise. In a striking Mayo Clinic Proceedings article, Berry, Danaher, Beckham, Awdish, and Mate (2017) compare the fear and disorientation of a patient when faced with an authoritative provider to hostage bargaining syndrome. Patients act as though they are hostages with reluctance to question their providers, put forward valid concerns, or assert a different viewpoint (Berry et al., 2017). As these encounters continue, patients develop a "learned helplessness" falling into passivity in their healthcare, complete lack of self-confidence, and even depression (Berry et al., 2017). It is only by acknowledging the importance of patient engagement and acquiring new communication skills that providers can overcome this intrinsic dynamic and create a trusting partnership that values patient preferences and concerns. Unfortunately, despite growing literature that supports their importance for quality care and patient satisfaction, evidence-based patient engagement techniques do not appear to be routinely incorporated into health professions' education. Both Ickes and McMullen (2016) and Hauer et al. (2012) note the need for further study of how best to incorporate communication skills such as shared decision making (SDM) and health coaching into curriculums.

Literature Review

Patient Engagement

Carman et al. (2013) define patient engagement as "patients, families, their representatives, and health professionals working in active partnership at various levels across the health care system…to improve health and healthcare" (p. 224). A related term is person-centered care, which Santana, Manalili, Jolley, Zelinsky, Quan and Lu (2017) define as "a model in which health-care providers are encouraged to partner with patients to co-design and deliver *personalized* care that provides people with the high-quality care they need and improve health-care system efficiency and effectiveness" (p. 430). Both concepts acknowledge the value of the patient viewpoint and how considering the patient perspective can improve care experiences, provider satisfaction, and health outcomes while decreasing health care utilization and costs (Carman et al., 2013; Santana et al., 2017).

Carman et al. (2013) provide a framework (See Figure 1) showing how patient engagement across different levels of healthcare exists along a continuum of information flow from patient to healthcare system. For engagement to occur at the direct care level, patients' values and experiences must be heavily explored and incorporated into prevention and treatment of illness states. At the highest level of the continuum, patients do not just receive information, but understand risks and benefits, receive answers to all questions, have the chance to review their medical records, and generally act in collaboration with the physician (Carman et al., 2013). Providers must actively listen to the patient, be responsive to preferences and needs, and "co-design" care plans with patients (Santana et al., 2017).

At the organizational or structural level, healthcare organizations can work to create a culture of engagement allowing patients to collaborate with leadership on care delivery (Santana

et al., 2017). Patients can assist in the design of care services by serving on advisory councils or quality improvement committees (Carman et al., 2013). Patient involvement at the policymaking level, in which patients work with community leaders to set policy priorities and design solutions to community healthcare issues, is unusual (Carman et al., 2013). The highest level of engagement is not right for all patients, but studies reveal that such bidirectional communication does lead to more patient centered outcomes (Carman et al., 2013).

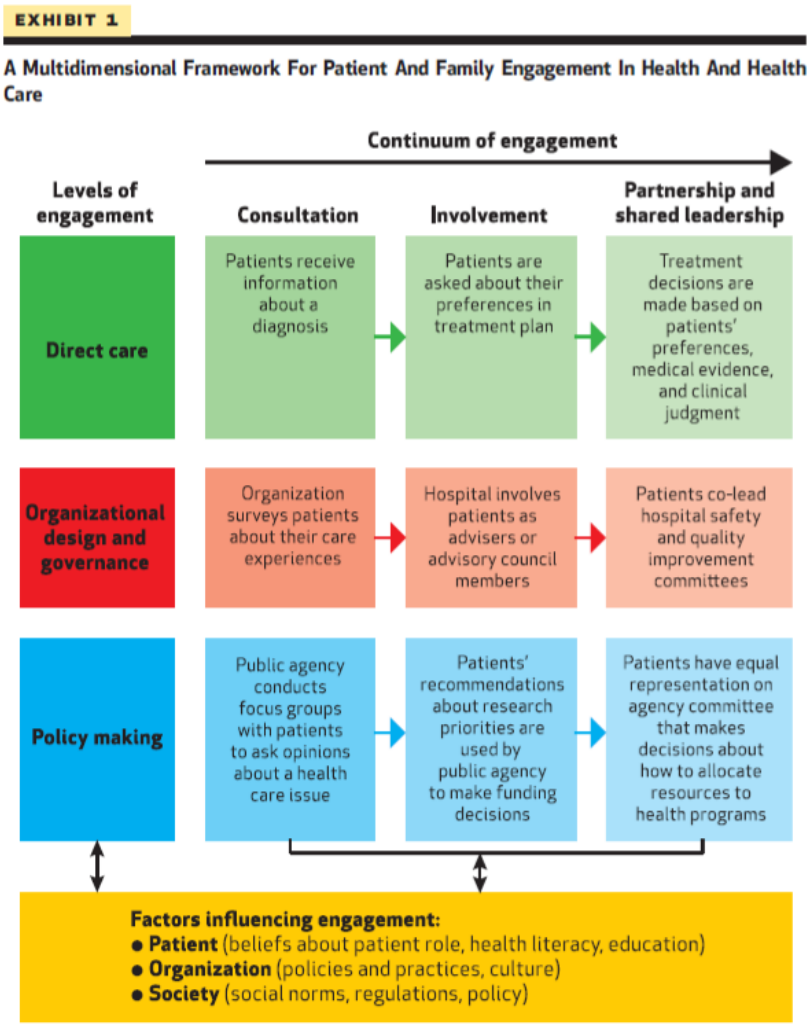

Figure 1 The Carman et al. (2013) framework describes a continuum of engagement at different levels of the healthcare system. Patient participation and collaboration in care increases from left to right across the grid.

There are many factors influencing the extent of patient engagement at all levels of the healthcare system. Some of these factors support but many impede progress toward reaching the higher end of the patient engagement continuum. At the direct level, Carman et al. (2013) identifies factors such as the patient's knowledge and beliefs, experiences with healthcare, self-confidence, functional capacity, health literacy, and language spoken. At the organizational level, various practices might discourage patient engagement such as not allowing family visiting at all hours, rounding away from the bedside, closed health records and generally creating the expectation that patients will not be involved in their care (Carman et al., 2013). At the societal level, patient engagement is about changing social norms by, for example, putting more resources toward eliciting patient input through townhalls and public hearings (Carman et al., 2013). Laws could be created to mandate or provide funding for patient participation (Carman et al., 2013). Traditionally providers are rewarded for seeing more patients, but this system could be reworked to incentivize person-centered care and the use of patient engagement techniques (Santana et al., 2017).

One measure of patient engagement is the Patient Activation Measure, which is scored on a scale of 0 to 100 using responses to thirteen questions about patient beliefs, confidence in managing their own health care, and self-reported knowledge (Hibbard & Greene, 2013). Patients who score higher on the scale are more likely to practice illness prevention behaviors and forego unhealthy behaviors such as smoking (Hibbard & Greene, 2013). They are more likely to prepare for visits, seek out health information, and have normal body mass index, cholesterol, blood pressure, and blood glucose levels (Hibbard & Greene, 2013). Highly activated patients with chronic disease are more likely to follow through on treatment plans, practice self-monitoring, and get regular checkups (Hibbard & Greene, 2013). Patients with low

activation scores are more likely to have unmet medical needs and delay medical care (Hibbard & Greene, 2013). Highly activated patients also have better care experiences and use less costly medical care (Hibbard & Greene, 2013). These findings have been replicated the world over and remain significant even after controlling for sociodemographic factors, disease severity, and insurance status (Hibbard & Greene, 2013).

Many studies have now shown that patient engagement improves care satisfaction, patient safety, healthcare costs and importantly health outcomes (Carman et al. 2013). One question Carman et al. (2013) puts forward is "what are the best ways for organizations and policymakers to create engagement opportunities?" (p. 227). While these authors fail to point out that clinician skill in engaging the patient may be a factor impacting engagement at the direct level, many experts believe the answer lies in providing patient engagement tools to providers. Equipped with well-studied, well-validated, patient engagement tools such as SDM and health coaching, providers may be better able to incorporate patient goals, values, and preferences into their care.

Tools for Patient Engagement

Shared decision making. SDM is a process in which health providers collaborate with patients to make healthcare choices based on the values and preferences of the patient (Legare & Thompson-Leduc, 2014). In 1982 a US Presidential Commission on medical decision-making ethics concluded that this process created the ideal dynamic for patient-provider interactions (Legare & Thompson-Leduc, 2014). At that time 56% of physicians and 64% of the public agreed that it was important to increase patient involvement in care decisions (Legare & Thompson-Leduc, 2014). In 1997, attempting to bring "conceptual clarity" to the concept of SDM and identify its basic characteristics, Charles, Gafni and Whelan wrote a landmark article

titled “Shared Decision-Making in The Medical Encounter: What Does it Mean? (Or it Takes at Least Two to Tango).” The authors note that SDM grew out of the consumer rights movement as “a mechanism to decrease the informational and power asymmetry between doctors and patients by increasing patients’ information, sense of autonomy and/or control over treatment decisions that affect their well-being” (Charles et al., 1997, p. 682). This article marks a significant shift in thinking from the paternalistic model of medical practice to a model in which a dialogue between patient and provider encourages patients to identify their preferences and incorporate them into the decision at hand (Stiggelbout, Pieterse, & De Haes, 2015). Charles et al. (1997) saw the model as key to managing the growing prevalence of chronic diseases and to making life altering decisions in illnesses like cancer. Since 1997, the key elements of SDM have been better defined and elaborated on in the literature.

Stiggelbout, Pieterse and De Haes (2015) identify four key steps to SDM:

1. “The professional informs the patient that a decision is to be made and that the patient’s opinion is important;
2. The professional explains options and the pros and cons of each relevant option
3. The professional and patient discuss the patient’s preferences; the professional supports the patient in deliberation
4. The professional and patient discuss patient’s decisional role preference, make or defer the decision, and discuss possible follow-up” (p. 1173).

An alternate model breaks SDM down into three stages: choice talk, option talk, and decision talk (Elwyn et al., 2012). Choice talk is letting the patient know that multiple valid options exist and what they are. (Elwyn et al., 2012; Friesen-Storms, Bours, van der Weijden, & Beurskens, 2015). Option talk is providing specific information about the various treatment choices

including their risks and benefits (Elwyn et al., 2012). Decision talk is exploring the patient's preferences and making or deferring a decision (Elwyn et al., 2012). SDM is best applied when there is more than one option and none of the choices are medically superior.

All models of SDM stress the importance of decision aids (See Appendices A and B). The international patient decision aid standards (IPDAS) collaboration defines decision aids as "tools designed to help people participate in decision making about health care options. They provide information about the options, and help patients to construct, clarify, and communicate the personal values they associate with the different features of the options" (Legare & Thompson-Leduc, 2014, p. 283). These decision support tools summarize information about treatment options in ways that are easily accessible to patients (Elwyn et al., 2012). The tools could be print materials such as hand-outs or booklets with text and diagrams or digital such as web sites and videos (Elwyn et al., 2012). Studies show that decision aids decrease decisional conflict, improve knowledge and expectations, and create greater concordance between the patient's values and the choices they make (Stiggelbout et al., 2015).

There has been increasing support for these and other SDM models and most physicians consider it important to collaborate with patients in making decisions (Stiggelbout et al., 2015). However, SDM is rarely implemented in clinical practice (Stiggelbout et al., 2015). A meta-analysis of 33 studies using observation to assess SDM concluded that it has not yet been incorporated into clinical practice (Legare & Thompson-Leduc, 2014). Alternative options are often not explained especially the option of no treatment at all (Stiggelbout et al., 2015). Patients want to know more than physicians think they do, but risks are not commonly explained, information provided steers patients toward a specific strategy, and sometimes the downsides of the treatment are presented after the decision is made (Friesen-Storms et al., 2015; Stiggelbout et

al., 2015). Patient preferences both for whether they would like to be involved in the decision and for treatment choice are rarely established (Stiggelbout et al., 2015; Zikmund-Fisher et al., 2010). In a nationally representative sample of 2473 adults 40 and older who had recently made one of nine specific medical decisions, only in surgical and anti-depressant medication decisions did a majority of patients recall being asked about preferences (Zikmund-Fisher et al., 2010).

Younger and more educated patients tend to be more interested in collaborating on decisions with their physicians (Friesen-Storms et al., 2015). Low health literacy and numeracy are barriers to SDM in low income populations, but when provided with more information in accessible formats these patients are more satisfied with their care (Elwyn et al., 2015; Legare & Thompson-Leduc, 2014). In fact, studies across various populations show SDM increases satisfaction with and confidence in decisions made, as well as knowledge gained, treatment adherence, and quality of life (Elwyn et al., 2015; Stiggelbout et al., 2015). Additionally, while many providers believe that SDM will drive up costs, no studies have found increased spending with the use of patient support interventions, including SDM (Legare & Thompson-Leduc, 2014). On the contrary, patients who are more actively involved in their care tend to choose more conservative treatment options potentially leading to reduced health care costs (Legare & Thompson-Leduc, 2014; Stiggelbout et al., 2015).

Health coaching. Health coaching developed out of alcohol treatments intended to motivate sobriety and is now used mainly to promote life style changes for patients with chronic illnesses (Huffman, 2010; Olsen & Nesbitt, 2010). Health coaching helps patients self-manage chronic diseases, which account for 70% of deaths in the United States and shorten life span by an average of 15 years (Olsen & Nesbitt, 2010). “Palmer et al. define health coaching as ‘the practice of health education and health promotion within a coaching context, to enhance the

wellbeing of individuals and to facilitate the achievement of their health-related goals'" (Olsen & Nesbitt, 2010, p. e1) Coaches educate the patient and provide feedback while supporting self-awareness, self-monitoring, and self-confidence (Olsen & Nesbitt, 2010). By targeting a patient's understanding of and agreement with the treatment plan along with any lack of confidence in their ability to carry out the plan, health coaches provide patients with the knowledge, skills, and self-efficacy to manage complex, life-changing conditions (Williard-Grace et al., 2015).

The principle function of health coaching is to help the patient set goals based on their own values and concerns and then provide the informational, motivational, and emotional support to achieve those goals (Ghorob, 2013). An effective health coach is an excellent active listener, helps the patient set realistic goals, provides impartial feedback, and is non-judgmental while still able to hold the patient accountable (Huffman, 2010). Coaches must work from the patient's own agenda asking what is important to them, whether they agree with the physician's advice, and what behavior changes they are motivated to make (Ghorob, 2013; Huffman, 2010). Once the patient's agenda is established, coaches implement the other key elements of health coaching, including ask-tell-ask, action planning, and closing-the-loop (Ghorob, 2013). Ask-tell-ask is using open ended questions to elicit patient concerns and feelings as well as any barriers that may be preventing lifestyle changes (Bodenheimer & Ghorob, 2014). Action planning is setting realistic goals in close partnership with the patient sometimes even signing a contract to show commitment (Ghorob, 2013; Jen Wong, personal communication, 2013). Closing-the-loop is ensuring understanding of information by having the patient repeat instructions and correcting if needed until the patient fully understands (Ghorob, 2013).

Health coaching interventions, commonly targeting low income, minority populations who bear a disproportionate burden of chronic disease, have proven effective for multiple outcome

measures (Williard-Grace et al, 2015). In an integrated study Olsen and Nesbitt (2010) point to studies showing greater adherence to diets leading to decreased cholesterol and glucose levels, better weight management leading to decreased body mass index and hip circumference, greater physical activity levels, and increased medication adherence. Health coaching also decreases rates of hospitalization compared to control groups (Huffmann, 2010). One study showed that patients receiving health coaching were more likely to achieve their goals for all of their chronic conditions (Williard-Grace et al., 2015). Patients specifically exposed to either closing-the-loop or action planning have better glycemic control than control patients (Ghorob, 2013). Health coaching can be done in-person or over the phone/internet and is conducted successfully by a variety of professionals including physicians, nurses, medical assistants, behavioral health consultants, and social workers (Olsen & Nesbitt, 2010)

Motivational Interviewing. Other commonly referenced patient engagement topics include barriers to effective communication, respect for cultural differences between patient and provider (cultural competence), and motivational interviewing (MI). MI is essentially the precursor to health coaching. It is defined by "Miller and Rollnick…as a 'directive, client centered counselling style for eliciting behavior change by helping clients to explore and resolve ambivalence'" (Rubak, Sandbaek, Lauritzen & Christensen, 2005, p. 305). As a counseling technique to elicit behavior change, MI is a core tool for any healthcare provider to learn, especially if they want to engage their patients more in their care.

MI seeks to increase an ambivalent individual's intrinsic motivation by clarifying and resolving any barriers they may have to behavior changes, while exploring their values and health goals (Rubak et al., 2005). A key component of MI is developing the patient's belief that they can succeed in achieving their health goals (Rubak et al., 2005). In a 2005 meta-analysis

Rubak, Sandbaek, Lauritzen and Christensen found that in 80% of studies MI outperformed traditional advice giving. MI can be effective in short (15 minute) encounters and has significant effects on cholesterol level, body mass index, blood pressure, and blood alcohol level (Rubak et al., 2005).

Comparison of patient engagement tools. The key difference between SDM and health coaching is that SDM seeks to help a patient make a *decision* based on their own preferences and health coaching seeks to help a patient set a *goal* based on their own preferences. These differences mean health coaching is most appropriate for preventative care or chronic disease management when goal setting can help a patient manage their disease through lifestyle changes. SDM is an excellent choice for use in life-altering decisions or when no one treatment choice is better than the other. MI can be incorporated into many situations, such as in a health coaching encounter to explore a patient's resistance toward behavior change or with SDM to explore a patient's opinions on or ambivalence about the various options available when making a decision.

In contrast to SDM, health coaching creates a specific agenda for an appointment that is often conducted by a designated health coach. While the content and goals set during the appointment may vary, the health coach will typically walk the patient on a prescribed journey from agenda setting to closing the loop. SDM, on the other hand, tends to be a non-linear, more general approach that can be incorporated into any patient encounter where a decision needs to be made or deferred. One advantage to the health coaching approach is that it is structured and generally the appointment will end with both patient and provider feeling like something was accomplished. However, a disadvantage is that it does not allow as much room to follow the line of conversation. The structure may result in the provider pushing the patient toward creating a

goal when that patient may not be ready to act. SDM emphasizes that choosing to not make a decision at all is, in fact, still making a decision and thus does not push the patient in any specific direction.

Bringing Patient Engagement Education to Health Professions' Students

Incorporation of patient engagement training into health professions' curriculums.

Stiggelbout et al. (2015) makes several suggestions for how to support the implementation of SDM in clinical practice, one of which is the incorporation of SDM into the communication skills programs at medical and nursing schools. In 2004 the Institute of Medicine reported that even though communication strategies are a core competency in medical education, medical school curriculums do not sufficiently equip students with the skills to address behavior change for common risk factors such as smoking, alcohol use, diet, and physical activity (Hauer, Carney, Chang, & Satterfield, 2012). In a systematic review of "Behavior Change Counseling Curricula for Medical Trainees" Hauer, Carney, Chang, and Satterfield (2012) found no "standardized or evidence-based approach to teaching behavioral counseling skills with proven long-term effects on physicians' clinic behavior or patients' outcomes" (p. 957).

Hauer et al. (2012) did find several successful strategies for incorporating behavior change counseling into medical curriculums noting they were limited by not examining the curriculums of non-physician health professions' programs. Ultimately looking at 109 studies of incorporating behavior change counseling into medical curriculums, the authors found that the most successful curriculums used a theoretical framework, incorporated a combination of interactive and didactic elements, and gave students a chance to practice their skills with immediate guidance and feedback (Hauer et al., 2012). These elements increased learner

satisfaction, confidence, and knowledge as well as, in some cases, actual patient care (Hauer et al., 2012). The authors found no studies addressing inter-professional education for behavior change counseling even though health care has significantly moved toward team-based clinical practice in recent years (Hauer et al., 2012)

A study conducted by Ickes and McMullen (2016) evaluated the integration of a Health Coaching Experiential Learning course into a Health Promotion program. The authors base their study on the fact that experiential learning is known to significantly enhance classroom training and that there is a lack of research "exploring the training and development of efficacious health coaching skills" (Ickes & McMullen, 2016, p. 2). The authors found that integrating experiential learning with health coaching led to greater "comfortability" with health coaching skills and greater confidence in students' ability to use MI, listen reflectively, motivate and communicate openly with patients, assess environmental influences on behavior, and suggest strategies for increasing social support (Ickes & McMullen, 2016). Both Ickes and McMullen (2016) and Hauer et al. (2012) note the need for further study of how best to incorporate communication skills such as SDM and health coaching into health professions' curriculums.

Best Practices for Adult Learning. To effectively bring patient engagement techniques to health professions' students, the curriculum designer and course facilitator must consider best practices for adult learning. Traditional learning theory, or pedagogy, is teacher-centric, meaning that students only need to learn what the teacher decides is important when the teacher deems them ready to do so (Curran, 2014). The teacher is the content expert and the prior knowledge and experiences of the students is irrelevant (Curran, 2014). In pedagogy, learning is passive and common teaching methods include lectures and readings (Curran, 2014). However, the adult learning process differs from a child's in large part due to their pre-established beliefs, prior

experiences, and their need for learning to be relevant to their life and work (Curran, 2014). Adults reject the authoritative, pedagogic approach in favor of being more actively involved in the learning process (Curran, 2014).

Andragogy is an active learning process that is more learner-centric and may increase knowledge transfer to the adult learner (Curran, 2014). In andragogy, brought into the mainstream literature in 1970 by Malcolm Knowles, learning is a collaboration between the students and the facilitator (Russell, 2006). This theory asserts that adult learners need to know why they need to know the material presented and that their prior experiences and knowledge will heavily impact their approach to the material (Curran, 2014). Motivators for adults may include serving the community, achieving higher career status, making new friends or simply satisfying curiosity (Russell, 2006). Teaching methods may include problem solving scenarios, role-play and simulations, interactive discussions, and even storytelling and games (Curran, 2014).

Social cognitive theory (SCT) is also considered valuable to the design of adult learning experiences. In SCT, learners observe a role model demonstrating a behavior, critique the learning experience, and commit the experience to memory (Curran, 2014). They then take ownership of the behavior by employing what they learned (Curran, 2014). With each execution of the behavior, self-efficacy to produce the desired outcome grows (Curran, 2014). Teaching methods of social cognitive theory include simulation, apprenticeships, and critical debriefing (Curran, 2014). By using andragogy and social cognitive theory together rather than relying on pedagogy alone to design and execute patient engagement trainings, students of the health professions will learn how to truly partner with patients facing complex conditions that require

significant behavior change and decision making. Such a partnership will improve the patient experience and ultimately health outcomes.

Agency Profile

In 1855, with the Gold Rush in full swing and the city growing rapidly, Jesuits founded the University as St. Ignatius Academy (Ziajka, 2017b). The school was granted a college charter by the state in 1859 and renamed the University of San Francisco (USF) in 1930 (Ziajka, 2017b). The school initially educated just a small number (3 students in the first year) of Irish and Italian immigrants eventually adding a School of Law, College of Arts and Sciences, School of Management, School of Education, and the School of Nursing and Health Professions (SONHP) (Ziajka, 2017b). Today the University educates a diverse set of 11,000 students with 16% international students and 51% minority students (Ziajka, 2017b). Within the SONHP there are 868 graduate students and 862 undergraduates (University of San Francisco, 2018f). USF's evening law and business programs enrolled the first female students in 1927 and many more were admitted when the Department of Nursing opened in the 1940s (Ziajaka, 2017a). The University became fully co-educational in 1964 and currently 64% of the student population is female (Ziajka, 2017b).

Though the school has grown and evolved over the years, the university continues to educate in the Jesuit tradition of teaching the whole person, preparing students to become leaders who act with kindness and compassion toward others. USF has a broad vision to "be internationally recognized as a premier Jesuit Catholic, urban university with a global perspective that educates leaders who will fashion a more humane and just world" and a mission that emphasizes the school's commitment to diversity, social responsibility, academic rigor, and partnership with the San Francisco Bay Area (University of San Francisco, 2018f). Ninety percent of the University's revenue comes from student tuition followed by Auxiliary Income, which includes the student room rate and revenue from athletics (University of San Francisco, 2016). The SONHP then

receives funding from the University based on enrollment (K. Raffel, personal communication, January 23, 2018).

In keeping with the University mission, the SONHP also educates health professionals in the Jesuit tradition by teaching students to provide compassionate healthcare to individuals while seeking to increase healthcare access to underserved populations. The school was established in 1948 as the Department of Nursing within the College of Arts and Sciences and in partnership with the Sisters of Mercy, an Irish religious group dedicated to serving and educating the poor (University of San Francisco, 2018e). In 1954 the department became an independent school within the University and the first private nursing school in the state (University of San Francisco, 2018e). Over its 70-year history the SONHP has continued to add programs now offering:

- Bachelors of Nursing
- Clinical Nurse Leader Master's Degree
- Combined Bachelor's of Nursing and Clinical Nurse Leader Master's Degree
- Master's of Nursing for RNs and for Non-nurses (MSN)
- Master's of Public Health (MPH)
- Master's of Behavioral Health (MSBH)
- Combined Master's of Public Health and Master's of Behavioral Health (MPH/MSBH)
- Master's of Health Informatics
- Doctor of Psychology (Psy-D)

- Doctor of Nursing Practice (DNP)
- Continuing education units (CEUs) for practicing nurses and social workers
- Several Non-degree certificates

The SONHP vision is to "advance the mission of the university by preparing health professionals to address the determinants of health, promote policy and advocacy and provide a moral compass to transform health care in order to further equity and positively influence quality, delivery, and access" (University of San Francisco, 2018a). The school's mission is

> "to advance nursing and health professions education within the context of the Jesuit tradition. The school uses dynamic and innovative approaches in undergraduate and graduate education to prepare professionals for current and future practice domains. The goal is to effectively link classroom, clinical and field experiences with expectations for competence, compassion, and justice in health care, protection and promotion within the context of the highest academic standards" (University of San Francisco, 2018a).

The SONHP faculty are well qualified to achieve this mission and have a wide array of professional backgrounds in various healthcare fields (University of San Francisco, 2018d). Dean Margaret Baker leads the school with a PhD in nursing science and Master of Nursing (University of San Francisco, 2018d). A doctoral degree is required to be on faculty in the Public and Behavioral health departments while an MSN is the preferred qualification for clinical nursing faculty (University of San Francisco, 2018b). Many faculty members hold multiple degrees in fields such as nursing, epidemiology, community health, social work and psychology among others (University of San Francisco, 2018d). Some faculty come to the school with strong clinical experience, while others have dedicated their careers to research or education

(University of San Francisco, 2018d). The school is also home to simulation education experts, who provide students with the opportunity to practice a wide variety of real-life scenarios at the USF Simulation Center (K. Raffel, personal communication, January 28, 2018).

The SONHP faculty work with students of all backgrounds pursuing careers in the health professions. Additionally, the school is accredited to provide CEUs to practicing nurses and social workers in the community (K. Raffel, personal communication, January 4, 2018). Over the last five years the SONHP has put significant resources into developing community partnerships and providing community-based learning opportunities to students (W. Borges, personal communication, February 12, 2018). Students receive or choose placements at community agencies such that they learn about their future profession while simultaneously helping to solve agency identified issues (W. Borges, personal communication, February 12, 2018). In keeping with recently developed Core Competencies, the SONHP is also working to develop interprofessional educational opportunities for the students and has offered interprofessional trainings in health coaching using the model developed by Tom Bodenheimer (W. Borges, personal communication, February 12, 2018). Through the students and these initiatives, the school reaches a large population of patients and has the capacity to improve the health of individuals and communities in the Bay Area, the nation, and around the world.

Problem Statement

Despite growing awareness of the need for patient engagement skills within the healthcare professions, these techniques do not appear to be routinely taught in schools of nursing and health professions. There is almost no patient engagement training provided to SONHP students. A small group of four to six Master of Nursing Students are chosen each year to become health coaches at a clinic in Oakland, CA serving mainly a low-income, Spanish speaking population. Health coach trainings have also been implemented in the past as one-off events for larger groups of SONHP students, but these workshops have not been extensively incorporated into program specific curriculums or made into permanent annual, interprofessional events.

No one had investigated how best to reach students in the SONHP with patient engagement content in a format that would work well for faculty members on a sustainable basis. Therefore, the project sought first to assess faculty needs in terms of content, format, and timing of the trainings. Then, in response to the findings of this needs assessment, the project aimed to design, develop, test, and evaluate a course made up of patient engagement modules that faculty can flexibly incorporate into their own existing courses as they see fit.

Methodology

Needs Assessment

In the first phase of data collection, a formative evaluation was conducted to help determine how the project could best be tailored in format, timing, and content to meet faculty needs and enhance its chances of success. The assessment aimed to answer the following questions:

1. How can patient engagement trainings be sustainably incorporated into the curriculum at the University of San Francisco School of Nursing and Health Professions?
2. What format and timing of the trainings would be best suited to the needs of the SONHP faculty?
3. What learning objectives and outcome expectations are most important to the faculty in the SONHP?

To answer these questions the project manager conducted in-person, key informant interviews using a semi-structured interview format with closed and open-ended questions (See Appendix C). This format allowed for the flexibility to follow the line of conversation and gain an in-depth exploration into faculty opinions on patient engagement trainings.

Eight faculty members who were known to have interest in patient engagement techniques were identified for interviews. This sampling strategy was used to get input from and begin developing relationships with the faculty who were most likely to implement the trainings as well as to ensure that the sample was representative of the various departments in the SONHP. Once identified, faculty members were emailed and asked if they would volunteer to meet with the project manager. The interviews lasted one hour and were conducted in January and February 2018 by Zoom video conferencing or in-person. No incentives were provided.

Data were analyzed qualitatively by searching for key themes about format, content, and timing. The project manager and preceptor discussed the data at length to develop a plan for the best way to proceed with the patient engagement trainings. The plan was then emailed to the interviewed faculty members for early input and approval.

Development of Canvas Course

To provide maximum flexibility and accessibility for faculty in different disciplines in the SONHP, a course was created in the Learning Management System Canvas, which is an online platform used to develop courses throughout USF. The course, called Evidence Based Techniques for Patient Engagement, consists of modules that can be easily imported into existing courses as they are or modified to emphasize content relevant to a specific purpose. As requested by faculty, the online material is supplemented with role plays that could be used during in-person sessions. Additional resources are provided for each module and annotations are included on all materials to help faculty decide what to incorporate into their courses. Modules, readings, and assignments are fully described and include information about time to completion. In keeping with adult learning theory, the modules contain a mix of learning materials and seek to emphasize the relevance of the materials to real-life situations.

Faculty Feedback on Canvas Course

To gain faculty input on the online modules, a formative evaluation was conducted to answer the following questions:

1. What do you like about the content and format of the Canvas course?
2. What would make the Canvas course more accessible and useful for faculty members?

3. What improvements could be made to the Canvas course?

To answer these questions the project manager invited two faculty members to thoroughly review the Canvas course. The two faculty members were chosen based on enthusiasm for the project, interest in incorporating the modules into future courses, and knowledge of the subject matter. This convenience sampling strategy was chosen to gain in-depth feedback from likely champions of the material with relevant expertise. An online evaluation form with open-ended questions was provided to help faculty complete their assessment (See Appendix D).

Workshops

Workshop 1. Two workshops were held to pilot the online and in-person materials. The first workshop was held in the entry level MSN Health Assessment and Fundamentals class and combined an introduction to patient engagement with an introduction to and application of the SHARE Approach, a 5-step methodology for SDM, and use of decision aids. Attendance was required. Students were to receive online materials from the Canvas course one week before. These materials introduced the concepts of patient engagement and SDM and outlined the five steps of the SHARE approach. The professor of this course spoke to the project manager nine days before the workshop and was instructed as to which materials to provide online.

Upon entering the classroom students were given a packet containing the following materials:

1. Table of Contents
2. Poster Covering the 5 Steps of the SHARE Approach
3. Agency for Healthcare Research and Quality Quick Reference Guide to the SHARE Approach

4. Three Decision Aid Examples
5. Instructions for the Role Play
6. Conversation Starters for each step of the SHARE Approach

The session lasted 1 hour and 45 minutes and began with an introduction to the implementation of patient engagement across the healthcare system and its impact on healthcare and health outcomes. These concepts were reinforced by reading and reflecting on a scripted role play comparing poor patient engagement with strong patient engagement techniques. There was then an introduction to the who, what, and when of SDM and a detailed review of the SHARE approach. This discussion included an introduction to the concept of decision aids and a reflection, using decision aid examples, on how they might be presented to a patient in the clinic.

Finally, students completed two role plays in which they were asked to incorporate conversation starters from each step of the SHARE approach. Students were divided into groups of four with one student playing the part of provider, one the patient, and two the observers who used a checklist to ensure providers were implementing the SHARE approach. Role descriptions were given to both provider and patient. After the activity, students then reflected on their role plays first in small groups and then as a whole class using the following questions:

1. Could you fit all the steps in?
2. What was the most challenging?
3. What worked best?
4. How long did it take?
5. How difficult would this be to implement in real life?

Workshop 2. The second workshop included students from the MSBH, MPH, MPH/MSBH, DNP, Psy-D, MSN programs along with MSBH Alumni. They were invited through program mailing lists to attend a 2.5-hour workshop on a Saturday morning to learn a collaborative approach to engaging clients in their care. The workshop was facilitated by the project manager and her preceptor, the former Director of the MSBH program. Nine students registered to attend. Registered students received an email with online materials from the Canvas course one week before the workshop. The materials aimed to introduce patient engagement and the steps of the SHARE Approach. A video on the approach was emphasized as the most important material to watch prior to the workshop. Many of the other materials were listed as optional. The workshop was like the first MSN workshop, but had a greater focus on decision aids including during the role plays, provided more detailed information for the role play parts, included a role play demonstration by facilitators, and asked students to reflect more on their personal experiences with health providers.

Student Feedback on Workshops. To gain student input on the workshops, a formative evaluation was conducted to answer the following questions:

1. What did students like and dislike about the online and in-person portions of the modules?
2. What specific advice do students have to improve the modules?
3. Do students find the material relevant and potentially useful for their future careers?

To answer these questions, all 37 students from the SONHP who participated in the workshops were recruited to provide input on the workshops. This convenience sampling

strategy was used to get as much input as possible by speaking with all students who had completed the workshop.

At the end of the workshops, the project manager explained that student opinions would help refine the modules and that participation in the discussion was voluntary. Open-ended questions (See Appendix E) were then put forth to the students and their thoughts were noted in MS Word on the project manager's laptop. The discussions lasted ten minutes and no incentives were provided. Students were then asked to respond in writing to the prompt, "How has your view of patient engagement changed as a result of this workshop?" Data were then analyzed qualitatively by searching for key themes about format, content, and timing.

Results

Needs Assessment

Faculty emphasized that it is difficult to find time to teach patient engagement techniques due to the time taken up by required core competencies that must be covered in the nursing curriculum. Right now, only about four to six students per year are trained in health coaching. It was suggested that this topic could be taught under the new required interprofessional competencies, but that there would need to be significant commitment on the part of the administration of the SONHP. The material would also likely need to be piloted successfully on a small scale before faculty would be willing to incorporate patient engagement content into courses throughout the curriculum.

All interviewees stressed that the most sustainable way to provide this content to students is through the incorporation of the material into existing courses rather than as a separate elective or as weekend workshops for extra credit. For nursing students, the content could be introduced in the first semester and continued or reinforced in later semesters. Faculty prefer most of the material to be online in two to six-hour modules. These modules could include assignments such as short writing reflections or required implementation of techniques at rotation sites. Faculty would like to follow up the online portions with proctored simulations for use in one to two-hour patient engagement “labs.” There is a strong belief that the application of the material is the most effective teaching method.

Faculty value convenience in accessing the material and flexibility in changing the content to meet the specific needs of their course. Other valued outcomes include the opportunity for students to do interdisciplinary work, improving skills around therapeutic communication, and the opportunity for students to practice the techniques they learn. In response to the plan for

developing a Canvas course with modules that could be imported into pre-existing courses and a repository of simulated scenarios, faculty expressed great excitement and readiness to place the material into their upcoming courses.

Development of Canvas Course

The course opens with a syllabus on the home page that describes each module including the time for completion and how that module could be combined with other modules. A FAQs page is included to help faculty navigate the course. There are eight content modules that could be incorporated as they are into an existing course:

1. "What is patient engagement?" - introduces the concept of patient engagement, providing a definition for the term and a framework for a continuum of engagement across multiple levels of healthcare. The module includes a brief review of available evidence on the impact of patient engagement/activation on health outcomes, healthcare costs, and care experiences.
2. "What is Shared Decision Making?" - introduces the concept of SDM and provides evidence for the impact of using this approach in patient encounters.
3. "The SHARE Approach: Shared Decision Making in Practice" - provides the knowledge and steps needed for the practical application of SDM. It begins with an introduction to the three key elements of SDM: Choice Talk, Option Talk, and Decision Talk. Then a narrated slideshow outlines the 5 Steps of the SHARE Approach to SDM developed by the Agency for Healthcare Research and Quality.
4. "Decision Aids" - introduces the concept of print and digital tools designed specifically to help patients better understand the decision they are facing and clarify their own

preferences and values. The module includes three examples of decision aids for students to critically analyze and consider how they might use them in a patient encounter.

5. "What is Health Coaching?" - introduces the concept of health coaching, emphasizing its essential features along with its impact on care delivery systems and health outcomes.
6. "Putting Health Coaching into Practice" - uses the curriculum developed by the Center for Excellence in Primary Care at UCSF to dive into the specific techniques used in health coaching: setting the agenda, ask-tell-ask, action planning, and closing the loop. For each technique students first read about the technique and then watch a video demonstrating the skill.
7. "Common Communication Barriers in Healthcare" – uses a narrated slideshow to introduce the idea that language, literacy, numeracy, and the use of a computer can all present challenges to communication between provider and patient. The module dives deeper into each of the communication issues identified and provides strategies for overcoming these barriers during a patient encounter.
8. "Cultural Competence in Patient Interactions" - uses an anthropological lens to introduce students to the idea that cultural factors may influence a patient's understanding of their own illness. It points out that a patient's understandings of disease etiology and treatment may diverge significantly from the provider's with potentially significant health consequences. The module incorporates many case examples to crystallize this concept and connect the importance of adopting cultural sensitivity to the real-life stories of people with families, communities, and lives of their own.

Each content module follows the same format. There is a Faculty Overview followed by a Student Overview, Core Learning Materials, and Assignments. The Faculty Overview page

contains information to help faculty decide what materials they would like to include in their course. The page starts with a description of the module and learning objectives. It then links to and provides annotations and time to completion for each of the core learning materials of the module and any additional resources associated with the module.

In the Faculty Overview there are also links to and descriptions of relevant role-playing activities and assignments. There are one or two assignments per module that encourage students to think more deeply about the topic presented, mainly by asking students to reflect on their own experiences with providers and patients. Other assignments have students create hypothetical patient-provider interactions or analyze a video or reading. The Student Overview page is similar but contains only a module description, learning objectives, and short descriptions of the core learning materials they need to complete.

There are three additional modules containing materials for faculty only:

9. In-Person Materials - provides the materials used during the workshops piloted with SONHP students as the course was developed including slide-decks and lesson plans.
10. Role Play Repository – provides simulated scenarios for use during an in-person session. Role plays correspond with both SDM and health coaching. Each role play contains instructions for how the activity will be conducted, a description of the role play setting, part descriptions for both provider and patient/client, an observation checklist so that an observer can determine how well the provider is using SDM or health coaching techniques. There are then questions designed to help students reflect on how they did during the role play.
11. Additional Materials - provides additional resources corresponding to each of the first eight modules. The Overviews for each section within the Additional Resources module

provide annotations so that faculty can adjust the content of each module to match their course objectives or to build on the basic module content. The additional materials could:

- Add to the core learning materials already included in each module.
- Replace core learning materials already included in each module.
- Be provided to students as additional resources for those interested in pursuing the topic further.
- Serve as the basis for an assignment corresponding with a module.
- Serve as faculty reading in preparation for facilitating in-person sessions.

Faculty feedback on online modules

One faculty member felt that the course was "clear and concise" with relevant information and a "layout [that] was organized and simple to follow." She appreciated the summary of each module including the suggested order of the content on the opening page. She felt having an overview for both faculty and students along with specific resources for faculty to use as desired was "incredibly helpful." She would certainly refer these materials to students and faculty for use as lectures, courses, and assignments.

This faculty member looked most closely at the material on health coaching, a technique she uses often with MSN students who have a primary care clinical focus. She is familiar with the Center for Excellence in Primary Care health coaching curriculum and felt it was summarized nicely in the modules. She would follow up the health coaching modules with an in-person simulation in which she observed and evaluated their technique. As a final note, she suggested it would be helpful to have samples of completed student assignments once they are

available and a section on the site where faculty could provide feedback on how to best utilize the modules based on their experiences.

The second faculty reviewer also appreciated the thorough introductions to each module and that the patient engagement techniques were separated into distinct sections for faculty to draw from as they choose. This faculty member has also focused on health coaching in her courses but would like to learn more about shared decision making for possible inclusion in her courses. She would also like to use some of the role plays provided for in-person sessions. She would organize the modules somewhat differently so that they were consistent with the design of her own courses.

Workshops

Workshop 1. In the workshop in the MSN Health Assessment and Fundamentals class there were 33 attendees. Students had not received the online materials except one article providing a framework for patient engagement across the healthcare system. As such, students did not have any background on the SHARE approach and the facilitator had to lecture more thoroughly than expected on the technique to prepare students for the role play. The classroom was too small given the number of students and how interactive the material was. The room was so crowded the facilitator could not get to some student groups to observe them during the role play.

Students in this workshop liked the interactive nature of the session because they were able to build the concepts and then apply them. This group's main advice was to provide the workshop sooner in the semester so that students can apply the SHARE approach on the wards.

They thought that an early workshop could be followed up by a refresher at the end of the semester or in a later course.

These students wanted more variety in the role play scenarios and more background info on the role play parts, a change that was made for the subsequent workshop. Another change made at the advice of this group was to incorporate students' own personal experiences with health providers to make the material seem more relevant. The students found the material relevant to their careers and everyone agreed the packet provided useful materials for future use.

Workshop 2. Of the nine students registered for the Saturday workshop for MSBH, MPH, MPH/MSBH, DNP, Psy-D, and MSN students and MSBH alumni, five attended: two MSBH, one MSBH/MPH, one DNP, and one MPH student. Though asked by email to watch a video and review a few articles, only one person had watched the video, and none had looked at the other materials.

Students that participated in the Saturday workshop also liked the interactivity of the workshop. They felt that practice ingrained the material and will make it easier to use with clients. That said, students felt the lecture portion of the workshop is necessary because the SHARE approach must be taught in order to use it in the role plays. They noted that if students had watched the video covering the technique, then the lecture portion could be very brief. The students in this workshop also wanted more options for the simulated scenarios so that the workshop would be more personalized, and they could choose to role play on a topic they knew more about. The students emphasized that they will use the approach with clients in the future and that any information related to communication is useful for their careers

Responses to written prompt "How has your view of patient engagement changed as a result of this workshop?" Several themes appeared in written responses to the prompt "After participation in this workshop, how has your view of patient engagement changed?" Students said they now saw patient engagement as a "two-way street" between the patient and the medical team and that everyone including the patient should be involved in decision making. They felt the workshop provided good advice for expressing empathy and a useful, structured format for engaging patients in decisions. Below are representative examples of student responses:

1. "Patient engagement is more fluid and really important in getting the patient involved on how they want to treat their problem."
2. "My new view of patient engagement: patient engagement is a 2-way street. It involves both provider and patient. Effort on both parts makes a Big difference."
3. "Let the patient guide the decision! Allow the patient to talk to find out what is important to them."
4. "It has definitely given me a new toolkit on how to engage with patients in a way that is standardized but can still be empathetic and personalized. Thank you very much for your time! ☺"
5. "I think the session was particularly helpful in providing conversation starters and best practices in engaging our patients. Sometimes we get in the habit of assuming patients don't want as much buy-in in the care --- therefore by providing questions that evaluate the desires of the patient is wonderful."
6. "This provides a good "checklist" to see and remind ourselves if we're doing all we can to properly engage with patients."

Discussion

Contribution to Health Professions' Education

Stiggelbout (2015) emphasizes the importance of incorporating SDM training into medical and nursing schools to ultimately improve communication skills in clinical practice. However, Ickes and McMullen (2016) and Hauer et al. (2013) note that there is little knowledge available about best practices for integrating such communication skills into health professions' education. This project sought to fill that gap through the design and development of a sustainable model for training students in patient engagement techniques at the USF SONHP. There is no standardized, evidence-based methodology for this type of effort, so the project took an approach tailored to the needs of the faculty in the SONHP.

Given time and funding constraints as well as demands placed on the curriculum by accreditors, it is not surprising that faculty wanted to be able to incorporate patient engagement instruction into existing courses. The need for convenience and easy accessibility as well as a preference for online resources revealed the obvious choice of creating content modules in an LMS with which faculty are familiar. This format was so well suited to faculty needs, that their willingness to engage with the project increased significantly after the project plans were explained.

The methodology is unique in that the LMS gives faculty the opportunity to import pre-organized, patient engagement content into existing courses, while allowing broad flexibility for modification of the material. Faculty can mix-and-match to align the modules with the content of their own courses. Selection and modification of content is enhanced by consistent formatting throughout the modules and clear descriptions of all materials including readings, videos, assignments, and role plays. The modules can be used by all departments within the SONHP

and/or incorporated into courses throughout a single program to build student knowledge over time. With some inter-departmental coordination, the material could easily be used to meet new interprofessional core competencies in the nursing curriculum.

Importantly, the design of the modules is also tailored to the needs of adult learners. The modules emphasize why students need to know the material and attempt to motivate learners by reinforcing how the material will help them serve the community while advancing their careers. The modules use a variety of teaching methods such as problem solving, role plays, and reflections that ask students to think critically on their own experiences with patients and providers. As noted by Hauer (2013), these observational and interactive methods are likely to increase adult student knowledge of and confidence with patient engagement as they move from academic pursuits to the healthcare industry.

Modules and Workshops. Asking two faculty members who are knowledgeable about patient engagement to thoroughly evaluate the course was an excellent way to get detailed input during the formative phase of the project. The feedback was overwhelmingly positive. The faculty like the format and content, would adapt it for their own use, and would refer the material to professors and students. Having two faculty members who are well-versed in the course and excited to champion the modules will also increase use of the newly available resources in future courses.

The open discussion with students immediately following the workshops allowed for a thorough exploration into student opinions on the patient engagement training in which they had just participated. The information gathered from the discussions paired with the facilitators' own observations helped to determine how the workshops could be refined to better suit student needs

regarding format, timing, and content, thereby increasing the chances of sustainably incorporating patient engagement trainings into the curriculum.

Role Play Format. The facilitator agrees with students that the interactive application of the material through role playing was an apt teaching method for the SHARE approach. Students were laughing during the first scripted role play, which produced a flurry of ideas for how a provider could better engage patients. Adding a demonstration role play performed by the facilitators to the second workshop seemed to give students a better sense of what to do when role playing on their own in small groups. This observation fits with the adult learning theory concept that observational learning increases student understanding of how to perform a skill. In the future, groups of three rather than four for the small group role play would allow more students to practice, rather than only observe, during each role play.

The facilitator heard students using the conversation starters that correspond with each step of the SHARE approach and many students asked to keep these conversation starters for later use. However, students were struggling with when to use which steps of the SHARE approach. Facilitators may wish to encourage students to start by taking the approach linearly while emphasizing that with practice the steps can go out of order during a patient encounter.

Students would appreciate greater variety in role play settings and more background information about the cases. One key recommendation for schools wishing to teach patient engagement techniques, is to collaborate with a Simulation Center if available. A simulation center may help with developing simulation scenarios, coordinating time and spacing needs for simulation sessions, and ensuring that students leave with a full understanding of the technique under study.

Use of Decision Aids. During the first workshop, the decision aids seemed to be the most difficult concept for students to wrap their minds around. When presented with examples and asked how they would present the aid to a patient, the students kept reverting to medical questions such as "how much insulin do you use?" rather than explaining the options presented on the decision aid or eliciting patient preferences and values. Students seemed to grasp the concept of decision aids better during the second workshop, when more time was dedicated to showing examples and including them in the demonstration role play. It may be beneficial to introduce decision aids earlier in the workshop, so students can be thinking about how they would use them as they learn the SHARE approach.

During the first workshop, one student was observed using the part written for the provider as an ad hoc decision aid, so decision aid examples were made available for the role plays of the second workshop. This change made the concept of presenting a decision aid much more tangible. Possibly doing one role play without decision aids and one with would have helped students to isolate skills and get better practice both with using a decision aid and with implementing the SHARE approach. In response to student feedback that they would like the workshop to be more individualized, students could work in class on designing their own decision aid related to the work they do.

Student Participation. Based on the number of questions asked and participation in group discussions and role plays, the students seemed fully engaged. The small group of five students in the second workshop made for a particularly comfortable setting for participation. Both lectures on the SHARE Approach felt rushed given that students had not watched the SHARE video and needed time to absorb the approach. For future workshops on the topic of the SHARE Approach, the facilitator would recommend assigning only the narrated SHARE

approach video prior to the workshop, so students are not overwhelmed by the requirement to read articles. The one student who did watch the video had been advised in-person by the facilitator that this was the primary material she needed to watch. Eliminating the articles may also lead more students to attend.

The facilitator was surprised to discover that many students had not thought about collaborating with a patient in this way to make decisions. One student stated, “this is the first time I thought of it [patient care] as a collaborative experience, this was the first time I had made that connection.” In the second session, asking students about experiences collaborating with their own providers fits well with adult learning theory and seemed to make the material more pertinent and relatable. During the final group discussion, students started to integrate the material; sharing their ideas about what settings and decisions would lend themselves to this approach, what barriers exist to using it, and who might be involved in the decisions aside from the patient.

Generalizability

While not all schools use Canvas, many use an LMS making this project potentially generalizable to other schools of nursing and/or health professions. USF SONHP uses an increasingly common hybrid system in which much didactic material is presented online leaving room for interactive, application of skills in class. This format, sometimes referred to as a flipped curriculum, may be more difficult to implement at schools that are not using a similar system. Some of the materials in the pre-formed content modules directly target nursing students so faculty coordinating other degrees, such as the Master of Public Health, may wish to remove those materials and/or select alternate materials from the additional resources provided. The role

plays provided for in-person sessions reflect scenarios seen in both clinical and non-clinical settings.

Recommendations

One major constraint was the limited time allotted for the project. As USF is accredited to provide CEUs, the facilitator would have liked to test the applicability of the material in community organizations. Offering CEU's would serve others and strengthen ties between the University and local healthcare organizations, building on the partnerships with the San Francisco Bay Area mentioned in the USF mission. The facilitator also was unable to incorporate a motivational interviewing module, a key component of any patient engagement course. This module was left off intentionally when time became short as this topic does come up elsewhere in USF SONHP curriculums.

Within days after receiving an email with information about the contents and accessibility of the course, twenty faculty members from various SONHP departments had requested access to the modules. This interest is an excellent sign; however, monitoring how much and what content faculty choose to incorporate into their courses will be crucial over the coming semesters. Ideally, faculty will incorporate the material early in the semester, as requested by students, to provide structured communication skills to implement during their first clinical rotations. Monitoring use of the material will need to continue to see how many faculty members use the material a second time or build on what they used before. As more faculty and students interact with the modules, further feedback should be collected on accessibility, relevance, format, and timing. It would also be useful to speak with students many months or even years after exposure to the material to see if they are continuing to implement what they learned.

Successful piloting of the material with both a nursing and health professions workshop will likely increase faculty uptake of the material. However, some faculty members may be more tech savvy than others, so they may hesitate to interact with the LMS. An FAQ section has been added to the Canvas course instructing professors on how to transfer materials to their own courses, and faculty should always double check that the material was imported. Faculty may also be concerned about teaching this content if they are not experts in it themselves. There are weekend workshops provided by local organizations that faculty could take advantage of to learn more themselves, but they should also be aware that even having students interact with the material on a basic level could have a big impact on engagement skills.

The creation of online modules in a familiar LMS gives faculty within the SONHP unparalleled convenience for accessing and modifying patient engagement materials and importing them directly into existing courses. Students who would have received little patient engagement training may now be exposed to it in multiple courses throughout their degree programs. These modules also have the potential to help meet required interprofessional core competencies and strengthen ties with local healthcare organizations. Finally, improving students' ability to involve patients more completely in their care will also help the SONHP achieve its vision of "transforming healthcare in order to further equity and positively influence quality, delivery, and access" (University of San Francisco, 2018a).

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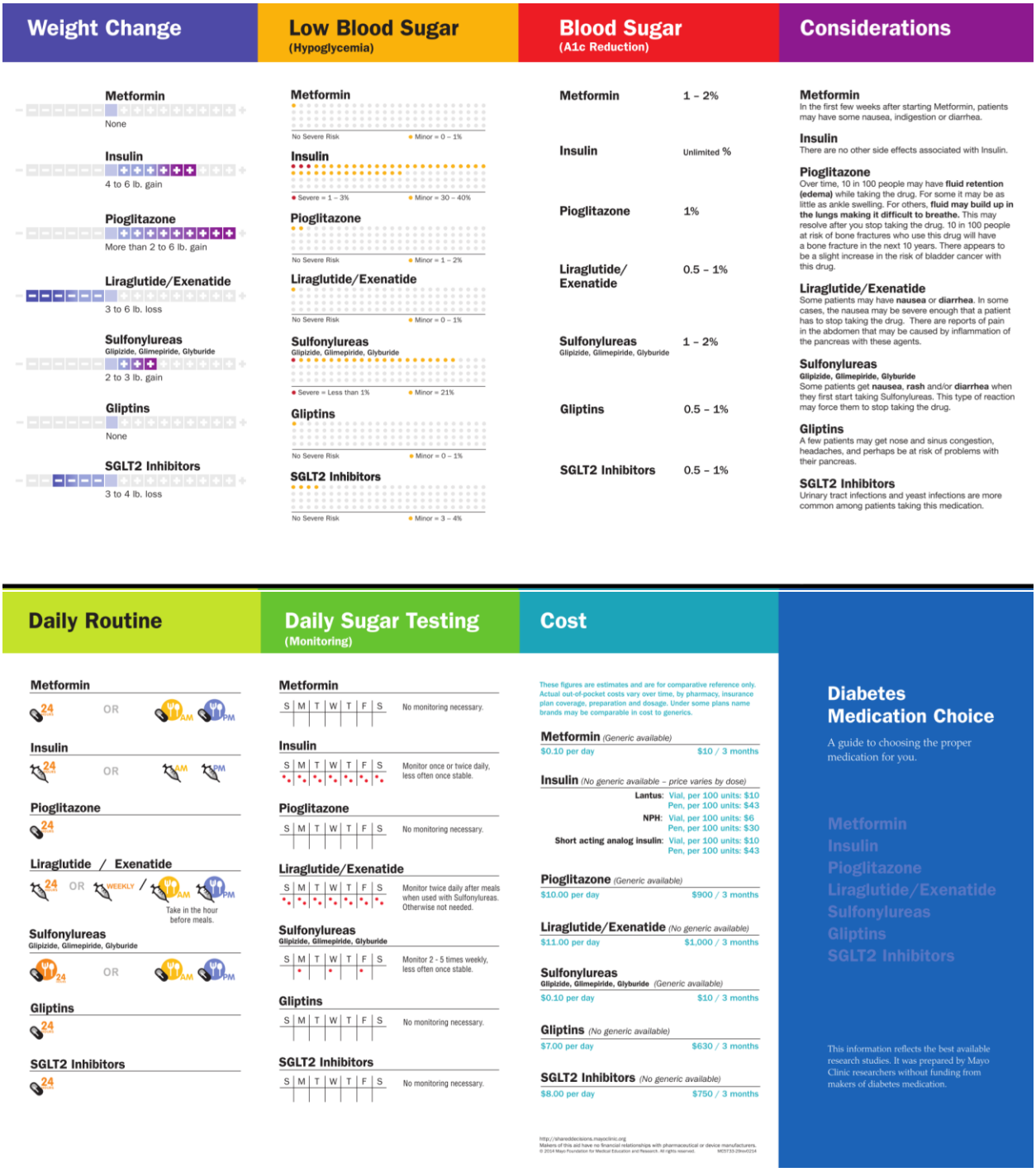
Appendix A

Decision Aid Example: Mayo Clinic Diabetes Brochure



Appendix B

Decision Aid Example: Heartburn

Heartburn: treatment options Use this grid to help you and your healthcare professional talk about the options for treating heartburn that lasts longer than 4 weeks.

Frequently Asked Questions	Proton pump inhibitor medication (PPI)	Laparoscopic surgery (also known as keyhole surgery)
Why would I be offered this treatment?	If you have long-term heartburn lasting longer than 4 weeks, one possible treatment is to use medication called proton pump inhibitors (PPI).	If treatment with PPI medication is not working or giving you problems, another possible treatment is laparoscopic surgery.
What does the treatment involve?	You take one or more tablets that reduce the amount of stomach acid every day for 4 or 8 weeks, and possibly longer.	The operation makes it more difficult for acidic food to come up into the gullet (esophagus) from the stomach, and it is done under general anesthetic. It takes a week or so to recover. Medication is not usually needed after surgery.
How long will it take for the treatment to work?	Most people's symptoms improve after a few days of starting this medication.	Most people's symptoms improve soon after surgery. Swallowing might be uncomfortable for a few weeks, but this goes away.
Will my symptoms get better?	Heartburn symptoms get better in 60 to 90 in every 100 people (6090%), but symptoms continue or come back in roughly 40 in every 100 people (40%).	Symptoms get better in 90 to 95 in every 100 people (90-95%). A small number of patients have no improvement.
What are the risks of this treatment?	Risks of serious harm are rare.	As with any surgery, there is a risk of bleeding and infection. General anesthetic can also be risky for some people. Surgery needs to be repeated in 4 to 6 in every 100 people (4-6%).
What are the side effects of this treatment?	Roughly 7 in every 100 people (7%) have side effects from the medicine. The most common mild side effects are headache, abdominal pain, nausea, diarrhea, vomiting, and increased gas.	Problems after the surgery are common, but resolve after a few days. These can include temporary difficulty in swallowing in up to 50 in every 100 people (50%), shoulder pain in roughly 60 in every 100 people (60%), and problems with belching in up to 85 in every 100 people (85%).
How long will it take me to recover from surgery?	Does not apply	Recovery takes a week or two. Most people are able to go home on the day of the operation.

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Appendix C

Protocol for Faculty Needs Assessment Interviews

The interview will begin with an introduction to the project managers background and experiences, the objectives of the fieldwork project, and the purpose of the interview. Then the following questions will guide discussion.

1. What are you already doing in your courses that is related to patient engagement?
2. Do you have interest in incorporating any of this into your curriculum?
3. What outcomes/learning objectives related to patient engagement do you see as most valuable for students?
4. What ideas do you have about how to implement an effective training?
5. What would be most sustainable way to incorporate this into the curriculum?
    a. What would be the best format?
    b. What would be the best timing?
6. Is there a way to do this training inter-professionally?
7. Would there be any interest in having it as a separate course (elective)?
8. Would there be any interest in having it as an extra credit option for students?

Appendix D

Evaluation Form for Faculty Assessment of Online Course

1. What do you like most about the canvas modules and/or repository of articles, simulated scenarios, and videos?
2. What do you find to be most useful about the canvas course?
3. Would you tell anyone else about these materials? What would you say?
4. How does this material complement material already presented in your courses?
5. Which modules are you most likely to use in your courses and why?
6. How would you follow up these online materials in-person?
7. What do you think needs improvement on the canvas course? What do you think needs improvement in terms of: organization, labeling, content?
8. What materials would you like to see added to the canvas course?
9. Would a FAQ page be helpful? What questions would you like to see answered?
10. What other feedback would you like to provide about the canvas course and how the modules might best be formatted for your courses?

Appendix E

Protocol for Post- Module Student Feedback Session

I have really enjoyed teaching this session! Thank you for participating. As you know, you are the first students to participate in these patient engagement modules and I would love to get feedback on how the modules were for you. Your opinions will help me refine the materials such that they are better suited to student needs. I will ask several questions and hope that many of you will weigh in with your thoughts. Participation is voluntary.

1. What did you like about the online portion of the module?
2. What specific advice would you give to improve the online portion of the module?
3. What did you like about the in-person training?
4. What specific advice would you give to improve the in-person training?
5. Was the material relevant?
6. Do you think you will use this material in your future careers?