Supporting Patients in Self-management of Chronic Conditions: Existing Practices in Family Medicine at Jordan Health

A survey of health professionals' self-reported knowledge and confidence employing specific self-management support tools at Family Medicine practices of Anthony Jordan Health Center.

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Abstract

With nearly 1 in every 2 adult Americans suffering from a chronic health condition,[1] we must reshape our healthcare delivery models such that care becomes comprehensive and continuous, rather than focused on acute episodes of illness. This study looks at one proposed component of treating chronic illness— self-management education. We assessed nurses' and providers' knowledge and confidence in employing specific self-management education methods. In a sample of 23 healthcare professionals, 59% of participants reported having received training in some form of self-management education. The most widely taught models were goal-setting (36%), the 5 A's Behavioral Change Model (32 %), and Teach-back method (32%). While staff members' average confidence in teaching specific self-management models was "somewhat confident," they reported utilizing these technique in only 45% of patient visits. This study demonstrates the need to establish training, infrastructure, and reimbursement for self-management education in the management of chronic conditions.

Keywords: Self-management support, FQHC, chronic disease management, 5 A's, motivational interviewing, teach-back, action-planning, goal-setting, patient-centered approach

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Introduction

In America today, nearly 1 in every 2 adults suffer from a chronic health condition.[1]Although many healthcare providers work endlessly to meet patients' multi-faceted needs, our country's predominant model of primary care was designed to treat acute problems, not chronic conditions. If we wish to improve the health of adults, primary care practices must acknowledge we have outgrown the usefulness of the traditional acute-care approach to medicine. To meet the health needs of our communities, we will need to redesign our practice model to one based on treating patients with chronic illness.[2]

A major component of treating chronic illness is supporting patients in self-management of their conditions. Self-management means teaching patients the problem-solving skills needed to create changes in their behaviors and manage their disease. Self-management differs from traditional patient education in that instead of providing information and technical skills to patients, health care professionals teach and allow patients to identify their own problems and create appropriate action plans.[3] However, as promising as self-management seems, lack of clear practice guidelines within a medical office or failure to follow an evidence-based protocol can lead to missed opportunities and unaddressed patient needs.

At Anthony Jordan Health Center (AJHC or *Jordan*), a *Practice Transformation* team has formed with the goal of redesigning various organizational systems within the practice, such that the center can offer more comprehensive, coordinated, accessible, and continuous care. A central component of this system redesign is to provide self-management support. A handful of *Jordan* physicians have previously trained in the *Five A's Behavior Change Model*, thus there some familiarity of self-management exists among providers. Given the timing of AJHC planning to

formally implement self-management within its practice model, it is fitting to assess providers' knowledge of this mode of care.

This study aims to assess both providers' and nurses' experience receiving training in self-management support. Furthermore, we assess the healthcare providers' knowledge and confidence levels employing specific self-management models with patients. We also seek to understand in what percentage of patient visits staff members are able to employ specific self-management models. Lastly, we qualitatively assess which methods staff members believe is effective in engaging patients to make behavioral changes, as well as what they perceive to be barriers.

Background

The models we incorporated into our questionnaire are evidence-based and have been implemented in primary care practices. Below is a summary of each model.

5 A's Behavior Change Model

The 5 A's model (ask, advise, assess, assist, and arrange) is a technique to aid clinicians in asking patients about their health behaviors, advising them to modify their behavior (if patients are found to be at risk), assessing their interest in doing so, assisting in their efforts to change, and arranging appropriate follow-up.[4]

Motivational Interviewing

Motivational interviewing (MI) is a method of counseling that attempts to discover the client or patients' intrinsic motivations in order to facilitate change. In the words of its founder, William Miller, MI is "…a collaborative, person-centered form of guiding to elicit and strengthen motivation for change." MI focuses on collaboration vs. confrontation; Evocation, or

drawing out rather than imposing ideas; and autonomy vs. authority. Some guiding principles include demonstrating empathy for patients, and supporting their self-efficacy.[5]

Teach-back method

This method aims to enhance patient recall, comprehension and adherence by having the clinician draw out what the patient has understood after a new concept is presented. Teach-back method is also referred to as an interactive communication loop.[6]

Ask-tell-ask

Incorporating the ask-tell-ask method in our research—as a model for chronic disease management in primary care settings—may not be entirely appropriate. While this patient-centered model draws heavily from motivational interviewing and shares the same principles of elicit-provide-elicit, ask-tell-ask has primarily been implemented for shared-decision making between patients and physicians when no single treatment option is necessarily better than the other.[7] Nonetheless, the use of ask-tell-ask in ongoing cancer care shows its adaptability as an approach to behavior change in chronic disease management.[8]

Patient activation

Patient activation describes an individual's readiness to take an active role in his or her own healthcare. The developers of this methodology created he Patient Activation Measure (PAM) to assess if patients have the knowledge, skills, and confidence to manage their own health condition.[9] A patient's PAM score places them in one of four segments of increased activation levels: disengaged and overwhelmed; becoming aware, but still struggling; taking action; and maintaining behaviors and pushing forward. Depending on each patient's level, clinicians can tailor the kind of advice and self-management approach that would be most

beneficial to the patient. Recent studies have found patient activation is related to many different improved health outcomes.[10]

Action Plan Forms

Action plans are short-term, concrete objectives that lead an individual toward accomplishing a larger goal. Providers or health coaches assist patients in establishing a plan and filling out action plan forms, which ask patients to specify the what, when, how often, and how much of what they will be doing, along with anticipated barriers, potential solution for barriers, follow-up plan, and confidence rating.[11] The Stanford Chronic Disease Self-Management Program utilizes action-planning forms and has developed a smart phone application to the same effect. Proponents of this model argue that action plans should be incorporated into patients' medical records.

Goal-setting

This traditional model helps patients identify a general purpose or objective for improving their health. However, goal-setting can prove ineffective if patients and providers do not make specific plans for reaching clear milestones. Recent research expands upon traditional goal-setting, favoring short-term action plans and obtaining a patient's confidence level in reaching their goals.

Goal-setting with confidence scaling

This method is similar to goal-setting, but asks patients to use a 0-10 scale to rate how confident they are they will accomplish a certain goal. If patients are less than 7/10 confident they will reach their objective, providers should then guide patients in setting a more attainable goal. [11]

Methodology

Study design

This was an observational, retrospective, cross-sectional study. In order to identify self-management models which are effective, have an established training and implementation protocol, and have been incorporated into the clinical setting, I first conducted a literature review on existing self-management interventions. This literature review began with a PubMed search for key terms self-management education, chronic disease management, and primary care. I did not review all articles systematically; rather, whenever I identified an academic institution, i.e. Department of Family Medicine of a medical school with publications of their self-management interventions, I incorporated their self-management methods in the survey. In addition, I discussed with my faculty advisor and site mentor which, self-management models have been taught at some time at Jordan Health. I selected eight self-management models and designed a web-based survey to assess participants' familiarity and usage of those specific models.

Setting and participants

I created a web-based survey and distributed it by email from July 2-7, 2014. I aimed to recruit all providers (MD/DO, nurse practitioners, and physician assistants) as well as nursing staff at Jordan Health's three principal sites. We excluded the hypertension nurses at each site since their care is limited to hypertensive patients and is distinct from those services provided in a general Family Medicine visit. The 74 potential participants were sent an email providing background information on the research project and inviting them to participate in the survey. Additionally, all potential participants were sent email reminders in the final two days of data collection. The survey was available until July 11, 2014.

We used existing group email lists to contact providers; therefore, these groups were recruited on July 2, prior to recruiting nurses. To contact nurses, each site's practice manager needed to email their nursing staff using individual email addresses. This additional coordination required in emailing the nurses meant that the nursing staff was only able to respond to the survey from July 7-11. Subsequently, one might expect the response rate for nurses to suffer, however the response rate for nurses did not vary from that of providers.

Data Collection

Response rates and demographics

The survey collected the following demographic information of each participant: provider type, primary practice site, years practicing in health care, and whether the participant formed part of the Practice Transformation team.

Experience with Self-management Support Models

The survey provided *Yes*, *No*, and *Unsure* options to asses if the participant had received any training in self-management support models. If the participant responded *Yes* or *Unsure*, then s/he proceeded to answer questions regarding specific models. If the participant answered *No*, then s/he continued to the open-ended questions. Participants stating they had received some training in self-management were asked if they had received training in each of the 8 selected models. If the staff member responded *Yes*, the survey then asked, "How confident are you in your knowledge and ability to utilize this model?" For this variable, we collected responses using a Likert scale from 0-4, where 0=Not at all confident, 1=Not very confident, 2=Somewhat confident, 3=Very confident, and 4=Fully confident. We then asked in what percentage of visits the participant employs that specific model; answer options were also scored

on a 0-4 scale, where 0=Never, 1=Less than 25% of the time, 2=About half the time, 3=More than 75% of the time, and 4=Nearly all the time.

Open-ended responses

We asked two open-ended questions of all participants, regardless of whether they had received any training in self-management support practices: (1) Consider when you have felt most successful engaging patients using a specific technique/approach. Please describe that here and identify the technique, if applicable. (2) What barriers prevent healthcare providers from engaging in self-management support with patients?

Data analysis

Response rates and demographics

Response rate according to provider type and primary practice site were taken into consideration to assure the sample was representative of the various professionals and three Family Medicine sites at Jordan Health. Number of years practicing as a health-care professional and whether participants formed part of the Practice Transformation team were not included as part of the final analysis.

Experience with Self-management Support Models

We first calculated what percentage of participants had received any kind of self-management support training. We then calculated the same variable for each of the two provider type groups: providers (MD/DO, NP, PA) and nurses. To find what percent of participants had been trained in each specific self-management support model, we divided the number of participants who stated *Yes* by the total number of participants. To measure participants' confidence levels and percent of visits in which each model was employed, we calculated the average of the self-reported scores.

Open-ended responses.

I read each of the responses and grouped them by common themes. Themes mentioned by three or more participants or showing considerable insight were included in the results.

Results

Response rates and demographics

23 surveys were collected over 10 days, 22 of which were completed. Of the 38 providers recruited, 7 were enrolled (18.4% response rate). Of the 36 members of the nursing staff recruited, 15 were enrolled (41.7%). Overall, the response rate was 30%. The participants were equally representative of Jordan's three primary sites, with 9 participants from Anthony L. Jordan, 7 from Brown Square Health Center, and 6 from Woodward Health Center.

Experience with Self-management Support Models.

Overall, 13 participants (59% of the sample) reported they had received training in some kind of self-management support. When this variable was broken down by provider type (Figure 1 of Appendix 1) it was discovered that 100% of the providers who participated in the survey claimed having received training in self-management support, while only 40% of the recruited nurses reported the same.

When participants' training in specific self-management support models was assessed, the percent of staff trained in each method ranged from 9% for goal-setting with confidence-scaling to 36% for traditional goal-setting. The 5 A's Behavioral Change Model and Teach-back Method were the second most taught models, both with 32% of participants expressing they had received training in these models (Figure 2 of Appendix 1).

Staff members' confidence levels utilizing specific self-management models ranged from 38% confident in goal-setting with confidence-scaling, to 75% confident utilizing the Teach-back. Trained staff members also reported feeling confident utilizing the Ask-tell-ask, motivational interviewing, and the 5 A's Behavioral Change models (at 67%, 58% and 57% confidence levels, respectively.) When looking at how often staff was able to employ each model during patient visits, goal-setting with confidence-scaling was employed the least often (25% of patient visits) and motivational interviewing was reported as most-utilized (63% of patient visits.) Participants also reported utilizing traditional goal-setting and the Teach-back method often, (56% and 54% of patient visits, respectively). (See Figure 3 of Appendix 1.)

Open-ended responses

When staff members were asked to think of when they have felt most successful engaging patients and to describe any specific approach or technique used, 4 of 22 participants stated that patients must be motivated, ready, and/or willing to change their own behavior. Additionally, 3 participants expressed that goal-setting, or patients identifying their own goals had been successful. Three participants voiced the importance of rapport-building, or having a genuine interest in the well-being of your patient and gaining their trust. Participants also identified the Teach-back method and one-on-one teaching as successful.

The most common self-reported barrier in engaging patients was not having enough time with patients, as expressed by 9 of 22 participants. Four participants identified that competing interests, or dealing with "the crisis of the day," were a barrier to engaging patients in behavior change. Also of importance, 3 staff members shared that patients' lack of resources (financial, food security, literacy, housing, etc.) prevented them from making changes in health-related behaviors.

Discussion

This research found that for specific self-management models, an average of only 24% of participants had received training. When considering that providing patients the tools and techniques necessary to manage their own conditions is a key element in how a healthcare practice must address chronic disease, it is not sufficient for less than one quarter of the staff members to have received training in a specific model or care delivery protocol.

Next, we can see that in the three models where Jordan has done some teaching– 5A's, motivational interviewing, and Teach-back, a higher than average percentage of participants reported having received training. Furthermore, staff members' average confidence levels utilizing these techniques were also substantially higher than the average for all other self-management models. These results serve as positive feedback, demonstrating that when a healthcare practice devotes resources to training employees in specific methods, employees will feel more confident utilizing those methods.

Another interesting finding is observed in the low percentage of patient visits in which self-management education was delivered. On average, this form of patient care was only employed 45% of the time. Again, this leaves much room for improvement if we consider the other activities we prioritize during patient visits. We ensure patients' medications are refilled, that their referrals are in order, and that any pressing concerns are addressed—all necessary functions of a health care provider. However, this research shows that we often do not take the time to make sure patients understand directions, that they have action-plans to work toward before their next visit, or that they feel they are the authors of their treatment and follow-up

plans. If patients are not treated as the key players of their health, can we really expect to see improvements in their physical and mental health?

Also of particular interest are the responses around the use of action plan forms, goal-setting, and goal-setting with confidence-scaling. Herein lies a great opportunity for action: while 36% of staff members reported receiving training in goal-setting, only 18% and 9%, respectively, expressed they had been trained in helping patients create action plans and assessing patietns' confidence levels when assisting in goal-setting. Action-planning and goal-setting with confidence-scaling are really just more detailed, specific approaches to traditional goal-setting which have been shown to be more effective in helping patients reach their goals. Of not, our results showed that participants trained in these two more specific forms of goal-setting felt more confident in their abilities than those trained in just goal-setting. Patients of Jordan Health would benefit by teaching staff members the extra steps involved in these more specific techniques.

Lastly, for nearly all self-management models, staff members' confidence levels were higher than the percentage of visits in which participants employed that technique. This result demonstrates that while staff members feel confident in utilizing techniques to lead patients in managing their own conditions, employees are not utilizing these methods as often as could be effective. Thus, we have found another possible point for improvement in the delivery of self-management education at Jordan: we need to allocate time, space, and infrastructure such that our staff can make full use of their training.

The findings of this study are limited by the small sample size and by not grouping results by staff members who formed part of the Practice Transformation team vs. those who have not. Members of the Practice Transformation team may have been more likely to report receiving training in self-management support, thus it would have been interesting to see how

their responses differed from those staff members who have not received this additional training through Jordan. To further strengthen this research, it would be useful to video-record patient-provider encounters in order to get a more accurate understanding of how often and to what extent employees are able to provide self-management education.

Recommendations

Taking into consideration the socioeconomic factors that shape the resources available to Jordan patients, I recommend implementing models of self-management support which have shown success in low-income, underserved communities. The practice-activation model meets these criteria. Additionally, this model boasts large amounts of publications, practice guidelines, and methods of incorporating reporting into electronic health records. I encourage providers to advocate for these changes: to press practice management to develop an infrastructure and accountability system that incorporate self-management education. Teaching patients skills to manage their health cannot continue to take the backseat to the "crisis of the day." We need to design a system that truly improves health, not just manages illness.

I urge the Practice Transformation team to select 1-2 self-management models and deliver training in those models to all staff members who work with patients. Jordan must then incorporate the SM model into the delivery of care. Possibilities include incorporating patients' action-planning forms into the electronic health record and requiring longitudinal reporting on patients' self-management progress. Jordan's practice management and leadership teams should also aim to work with policy-makers and insurers to make SM practices reimbursable.

Conclusion

Chronic illness can truly prevent people from leading happy, self-fulfilling lives. Primary care cannot continue on in a way that does not provide comprehensive, effective counseling and self-management support for patients striving to manage their chronic illness. The chronic conditions our patients face cannot be managed with medications alone; providing self-management support must become part of our care delivery model.

References

1. Ward BW, Schiller JS, Goodman RA. Multiple chronic conditions among US adults: a 2012 update. *Prev Chronic Dis.* 2014; 11:130389.
2. Bodenheimer T, Wagner EH, Grumbach K. Improving primary care for patients with chronic illness. *JAMA* 2002; 288(14): 1775–1779.
3. Bodenheimer T, Lorig K, Holman H, Grumbach K. Patient self-management of chronic disease in primary care. *JAMA*. 2002 Nov 20; 288(19): 2469-75.
4. Dosh SA, Holtrop JS, Torres T, Arnold AK, Baumann J, White LL. Changing Organizational Constructs Into Functional Tools: An Assessment of the 5 A's in Primary Care Practices. Ann Fam Med, 2005; 3(Suppl 2): s50–s52.
5. Rollnick, S., & Miller, W.R. (1995). What is motivational interviewing? *Behavioural and Cognitive Psychotherapy*, 23, 325-334.
6. Schillinger D, Piette J, Grumbach K, et al. Closing the loop: Physician communication with diabetic patients who have low health literacy. Arch Intern Med. 2003; 163:83–90.
7. Gaster B, Edwards K, Trinidad SB, Gallagher TH, Braddock CH. Patient-Centered Discussions about Prostate Cancer Screening: A Real-World Approach. *Ann Intern Med*. 2010 Nov 20; 153(10): 661–665.
8. Evans WG, Tulsky JA, Back AL, Arnold RM. Communication at times of transitions: how to help patients cope with loss and re-define hope. *Cancer J*. 2006 Sep-Oct; 12(5): 417-24.
9. Hibbard JH, Stockard J, Mahoney ER, Tusler M. Development of the patient activation measure (PAM): conceptualizing and measuring activation in patients and consumers. *Health Serv Res*. 2004; 14(4): 1005–1026
10. Greene J1, Hibbard JH. Why does patient activation matter? An examination of the relationships between patient activation and health-related outcomes. *J Gen Intern Med*. 2012 May;27(5):520-6.
11. Lorig K1, Laurent DD, Plant K, Krishnan E, Ritter PL. The components of action planning and their associations with behavior and health outcomes. *Chronic Illn*. 2014 Mar;10(1):50-9.

Appendix 1: Results Graphs and Charts

Figure 1. Percent of participants with SM training, by provider type

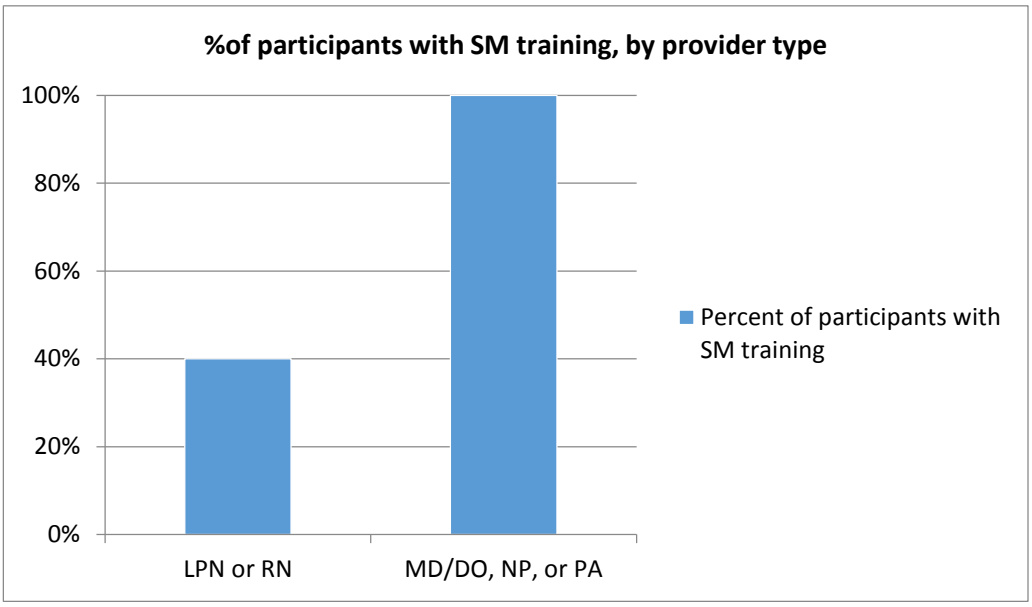


Figure 1. Percent of participants with SM training, by model

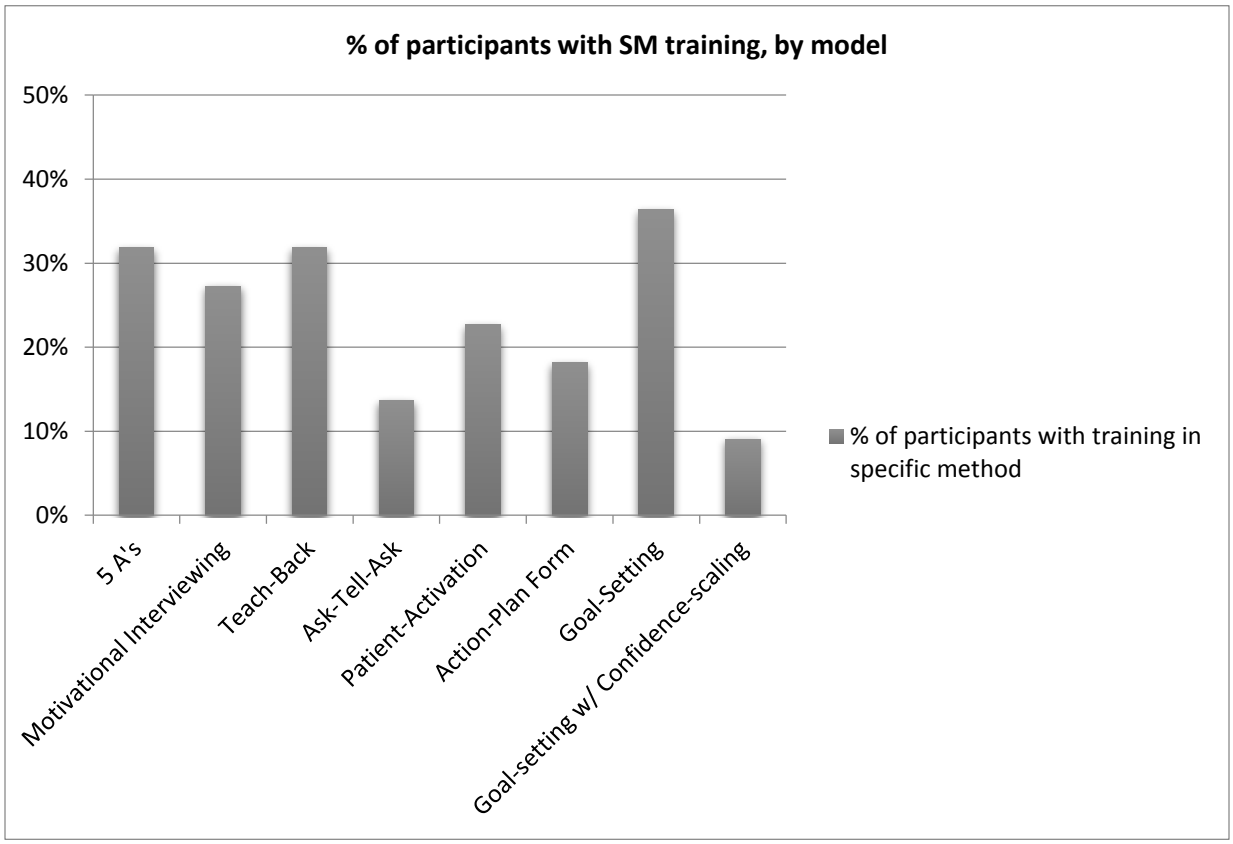
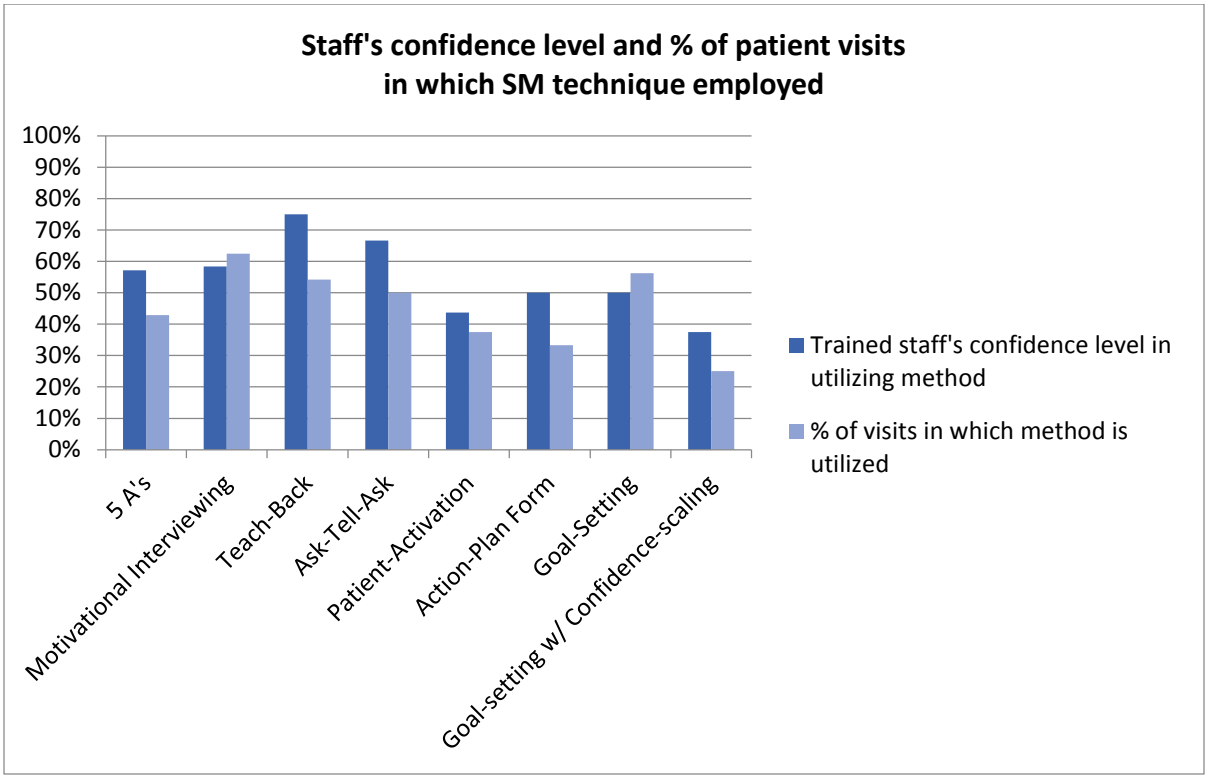


Figure 3. Staff members' confidence levels and percent of patient visits in which SM model is employed



Appendix 2: Self-management support survey

Page 1: Welcome

This survey is to **assess your familiarity with the concept of self-management. Self-management means teaching patients problem-solving skills to help them successfully manage their own conditions.** There are many models for teaching self-management.

Supporting patients in self-management is a major component of treating chronic illness. Programs teaching self-management skills can i**mprove health outcomes** and **reduce healthcare costs.**

Thank you for finding time to share your knowledge and experience with us.

Page 2: Demographics

1. Please indicate your provider type:

___ MA
___ LPN
___ RN
___ PA
___ NP
___ MD/DO
___ Other

2. At which Jordan Health site do you primarily practice?
___ Anthony L. Jordan Health Center
___ Woodward Health Center
___ Brown Square Health Center.
___ Other
3. Are you part of the Jordan Health Practice Transformation team?
___ Yes
___ No
4. How many years have you practiced as a healthcare provider? (Free response)

Page 3: Experience with Self-management Support Models

1. Have you received training in delivering self-management support (for example, motivational interviewing, patient-activation, the 5 A's, teach-back method, ask-tell-ask, or others)?
___ Yes *(Survey sends participant to Page 4.)*
___ No *(Survey sends participant to Page 5.)*
___ Unsure *(Survey sends participant to Page 4.)*

Page 4: Knowledge Experience Utilizing Self-management Models

1. Have you received training in the following self-management models? (Yes/No)
Y/N: 5 A's Behavior Change Model *(Assess, Advise, Agree, Assist, Arrange)*
Y/N: Motivational Interviewing
Y/N: Teach-back method
Y/N: Ask-tell-ask
Y/N: Patient-activation
Y/N: Using Action Plan form *(see sample form below)*
Y/N: Goal-setting
Y/N: Goal-setting with confidence scaling

2. If Yes, **how confident** are you in your **knowledge and ability to utilize each model** with patients? (Likert scale 0-4; 0=Not at all confident, 1=Not very confident, 2=Somewhat confident, 3=Very confident, and 4=Fully confident)

3. Lastly, when appropriate, what **percentage of time** do you **employ each model with patients**? (0-4 scale; 0=Never, 1=Less than 25% of the time, 2=About half the time, 3=More than 75% of the time, and 4=Nearly all the time)

Page 5: Your thoughts…

1. Consider when you have felt most successful engaging patients using a specific technique/approach. Please describe that here and identify the technique, if applicable. (Free response)

2. What barriers prevent healthcare providers from engaging in self-management support with patients? (Free response)

Page 6: Survey Complete!

Thank you! If you have any questions, please contact the principal investigator, Gabriela Pauli at gpauli@uci.edu or (559) 348-7575.