

HEAL Connect: A Pilot Feasibility Study of a Patient Activation Intervention in an Aging Adult Population

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ABSTRACT

Background

High patient activation has been positively correlated with improved patient health outcomes and quality of life. Yet, many adults over 65 years often lack important patient activation skills. The purpose of this study was to determine the feasibility of a study protocol to deliver and evaluate an hour-long patient activation workshop, HEAL Connect.

Methods

This study used a mixed methods approach, collecting Patient Activation Measure-10, demographic data, and focus group data.

Results

Overall, this diverse sample of older adults had moderate patient activation scores. The workshop was well received by participants, but most struggled to complete the surveys.

Conclusions

This feasibility study demonstrated an opportunity to improve patient activation interventions among aging adults and highlighted a need to study barriers to data collection among this population.

INTRODUCTION

Patient activation encompasses behaviors that reflect a patient's knowledge, skills, and confidence in managing their own health effectively.¹ Higher patient activation has been positively associated with higher quality of life and positive health behaviors such as vegetable consumption and regular exercise.² Yet, adults 65 years and older often lack active involvement in medical appointments.³

The Patient Centered Multilevel Personalized Patient Activation and Empowerment Framework guided the evaluation of this study's patient activation intervention. This framework posits that self-determination and confidence lead to better communication and active information seeking from patients, further supporting patient activation to improve health outcomes.⁴ This pilot study assessed the feasibility of the approach before being tested in a full-scale study. The specific aims were to evaluate (1) participation, (2) compliance with data collection protocols, (3) workshop evaluation, and (4) understanding patient activation in an aging adult community.⁵

METHODS

HEAL Connect was an hour-long workshop with a lesson plan (Table 1), lectures, interactive games, skills practice, and discussion. The workshop was created by this study's researchers to personalize patient activation interventions to aging adults. Researchers used strategies that the Center for Disease Control and Prevention (CDC) recommended for the aging adult population, including repeating information, using plain language, memory aids (handouts) in large font size, and skill-building activities.⁶

Initial testing of the workshop was performed among nurse practitioners specializing in geriatric care and nurse researchers specializing in aging adult research. After the initial testing, the workshop was delivered to participants in April of 2024.

This study employed a mixed-methods design and was reviewed and approved by the Texas Christian University IRB (IRB #2023-255). Eligibility criteria included individuals who were 18 years or older, were able to speak and read English, and provided informed consent.

Sample

Participants were recruited from a convenience sample of adults 65 years and older that reported to be aging in place, and who attended a senior activity center.

Measures

Surveys were given to participants pre- and post-workshop, which included participant characteristics, the Patient Activation Measure-10 (PAM-10), as well as exploratory questions to check for knowledge and attention (not included in data analysis). In total, the pre-survey was 27 questions long, and the post-survey was 19 questions long (did not repeat characteristic questions in the post survey). Participant characteristics collected included age, biological sex, race/ethnic background, highest level of education, and the frequency and reason for healthcare provider (HCP) visits. PAM-10 assessed participant belief in the importance of patient engagement in medical appointments, confidence to act on their health, and self-determination to adhere to treatment plans. PAM-10 consisted of ten items, answered on a 4-point Likert scale from 1 = strongly disagree to 4 = strongly agree. Answers of not applicable (N/A) were excluded from analysis. Scores ranged from 0-100, where higher scores represented higher patient activation levels. The survey distributor, Insignia, offers a platform to interpret PAM-10 scores based on patient activation levels. Levels range from 1-4, where level 4 represents high patient activation. Cronbach's alpha of 0.86 has been reported in an adult population.⁷

Data Analysis

Descriptive statistics were used to describe the sample's characteristics and mean PAM-10 score. A directed content analysis approach guided by the Patient Centered Multilevel Personalized Patient Activation and Empowerment Framework was used to analyze focus group transcripts, providing further insight into the PAM-10 items included in the survey. Observations were also integrated into the results to provide further insight.

RESULTS

Nineteen participants completed the survey. Focus groups included two participants in focus group 1 and eight in focus group 2.

Participation

A total of 20 out of the 24 attendees participated in the senior activity center, for a participation rate of 83.3%. One participant could not provide informed consent and was not included in the data analysis (n=19). Surveys providing demographic data showed a diverse participant population (Table 2).

Compliance with data collection protocols

To assist older adults with data collection protocols, the researchers formatted surveys to help with visual barriers and aided with survey completion. Some participants needed assistance completing surveys but initially hesitated to accept assistance. Some participants added written information instead of answering the Likert-scale items. The survey took approximately 20 more minutes than expected. Some participants had survey fatigue and did not complete the survey and called attention to potential “*cognitive or visual*” barriers during the focus group.

Workshop evaluation

During the focus group, participants gave overall positive feedback about the workshop (Table 3), stating that the information provided gave them an “...*insight on how to approach...*” healthcare visits. Participants especially appreciated the HCP question guide and shared decision-making (SDM) handout to help lead conversations during a healthcare visit and to ensure that their goals aligned with the providers. One participant described the SDM handout as logical “... *so you can decide together how to go forward or how to be treated.*”

Understanding patient activation skills in an aging adult community

The survey results showed the pre-intervention PAM-10 score was slightly skewed left with a mean of 60.2 [standard deviation (SD) 13.5], interpreted as an average activation level of 2.6 [SD 0.86]. This suggested that participants had some awareness and knowledge of patient activation. Mean scores were compared to the qualitative data codes of confidence and self-determination, providing insight into PAM-10 items (Table 4). Mean scores of PAM-10 indicated

moderate confidence and self-determination that was confirmed with participants' discussions during the focus groups.

Partnership

Focus groups provided insight into what a partnership with their HCP looked like to them (Table 3). This included HCPs who were aware of cognitive obstacles. Some participants described their doctors as not providing enough time to verbalize concerns, which was distressing for participants since they felt they needed extra time to organize their thoughts.

DISCUSSION

This study's purpose was to test the feasibility of implementing a patient activation intervention among community-dwelling aging adults. Bowen et al.⁸ noted the importance of community partnerships in feasibility studies to improve implementation and practicality of a patient activation intervention. In this study, workshop participation was positively impacted through leveraging community partnerships.

Participants in the current study required about 30 minutes to finish surveys, while often not finishing surveys, suggesting survey fatigue.⁹ In focus groups, participants expanded on potential causes of this, including potential cognitive and visual barriers. Teresi et al.⁵ outlined feasibility criteria for data collection. Due to the perceived burden, the current survey protocol is not feasible.

Many participants in this study had moderate patient activation skills but notably stated that the workshop reminded them to use these skills. Some discussed their experiences where the provider did not take time to listen to or participate in shared decision-making along with their reluctance to speak up, confirming previous reports.^{10,11}

Limitations

This feasibility study had several limitations which may have impacted its results. First, participants expressed their frustration and difficulty with completing a lengthy questionnaire, suggesting potential survey bias. The study was also conducted with a convenience sample, which is subject to sample bias.

CONCLUSION

Moderate patient activation levels demonstrated an opportunity for public health nurses to build patient activation skills among community-dwelling older adults. There is a continued need to evaluate the outcomes of programming and testing of education interventions in this population. Findings in this study suggested the need to adapt data collection protocols and patient activation measures for older adults. Therefore, this information will inform protocol development and research design for future larger studies.

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Table 1

HEAL Connect curriculum overview

Topic	Teaching Strategy	Objectives
Importance of Partnership	- Lecture	Participants will comprehend definitions of patient activation and shared decision making.
Patient Activation	- Lecture - Read and Discussion: "Doctor's Appointment Question Guide" - Game: Charade's game	Participants will recognize patient activation behavior and be able to discuss important questions as an HCP.
Sharing Health Concerns	- Lecture - Situation Card	Participants will understand the importance of communicating with HCPs and identify important health concerns to share with an HCP.
Shared decision making	- Lecture - Goal Worksheet	Participants will recognize the importance of shared decision making and understand the importance of being involved in their treatment plan. They will be able to advocate for their own health goals during visits.

HCP = healthcare provider.

Table 2

Survey participant characteristics

Demographics	Number	Percent
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Sex		
Female	17	89.5
Male	2	10.5
Race/Ethnicity		
White	2	10.5
Black	15	78.9
Hispanic	2	10.5
Education		
Less than high school	5	26.3
GED or high school graduate	4	21.1
Some College	6	31.6
College	4	21.1
Reasons for HCP visits		
Chronic conditions	14	73.3
Sick visits	1	5.3
Allergy problems	4	21.1
Women's Health	1	5.3
Other	1	5.3
How often participants visit an HCP per year		
0-1 times per year	1	5.3
2-3 times per year	6	31.6
4-6 times per year	7	36.8
10 or more times per year	2	10.5
Total	19	

GED = General Educational Development. HCP = healthcare provider.

Table 3

Quotes from focus group emergent codes

Code	Quotes
Workshop evaluation	<i>"...I appreciate the fact you have eye contact, and you're looking at us, and you're smiling, and you have good body language. Because sometimes when you go to the physician's office, they're focused on their computer, and there's very little communication as far as nonverbal. You don't always feel the love..."</i>
Role in HCP visits	<i>"So, it takes some time for you to get your thoughts together. So therefore, you have to find a doctor that has patience. You're willing to understand the situation, you know? Even though you got to realize you old and that your mind and memory ain't like it used to be."</i>

HCP = healthcare provider.

Table 4

Focus group data corresponding with PAM-10 questions

Code	PAM-10 Question	Mean (Standard deviation)	Quotes
Confidence	I am confident that I can follow through on medical treatments I may need to do at home.	3.22 (.428)	<i>“And it’s good, though because now that we are getting older, we’re at the maintenance stage. And so, it’s good to stay up on this stuff because this is important that we take our part because we have to be proactive.”</i>
	I am confident that I can maintain lifestyle changes, like eating right and exercising, even during times of stress.	2.88 (.687)	
Self-determination	I am confident I can figure out solutions when new problems arise with my health.	2.82 (.883)	<i>“Because only I can tell me how I feel. I can tell you, but I know how I feel. So, I feel it’s more me to be responsible.”</i>
	I know what each of my prescribed medications do.	3.13 (.806)	<i>“...But my goal is just to maintain my safety and be able to do what I need to do. Maybe I have little problems with putting my socks on because my knee is arthritic. So, I ask, “What can I have? Well, what can I have?” The only thing I have problems with is. putting my socks on. So, I got a sock applicator, which is nice. So, I think that’s important.”</i>
	I know how to prevent problems with my health.	3.06 (.639)	

PAM-10 = Patient Activation Measure-10.