

Improving Patient-Centered Care: Personal Models of Depression Among Older Male Veterans

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A quality improvement project was undertaken at the Geriatric Research Education and Clinical Center at the VA Palo Alto Health Care System to better understand how older veterans think about depression diagnosis and treatment so that patient education efforts and communication between older veterans and their health care providers could be improved.

One of the missions of the VA Palo Alto Health Care System (VAPAHCS) Geriatric Research Education and Clinical Center (GRECC) is to develop and evaluate new models of geriatric care while providing outpatient interdisciplinary care to older veterans. The goal of this care is to optimize older veterans' quality of life (QOL) and maximize their functional status. The VAPAHCS GRECC clinics focus on both medical and psychosocial services, particularly the impact of depression on QOL and functional status. About 30% to 40% of the older veterans in the GRECC clinics acknowledge having current depres-

sive symptoms or having a history of depression. Understanding how older veterans think about depression diagnosis and treatment may improve patient education efforts and improve communication between older veterans and their health care providers (HCPs).

In order to understand older veterans' beliefs about depression diagnosis and treatment, a quality improvement (QI) project was de-

signed and undertaken at VAPAHCS. The QI project goal was to aid in the development of patient-centered education. Research on patient education suggests that tailored approaches that account for individual differences in beliefs are most effective for encouraging health behavior change, although little is known about specific beliefs held by older veterans about mental health conditions such as depression.¹

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The VHA's Geriatric Research Education and Clinical Centers (GRECCs) are designed for the advancement and integration of research, education, and clinical achievements in geriatrics and gerontology throughout the VA health care system. Each GRECC focuses on particular aspects of the care of aging veterans and is at the forefront of geriatric research and clinical care. For more information on the GRECC program, visit the website (<http://www1.va.gov/grecc/>). This column, which is contributed by GRECC staff members, is coordinated and edited by Kenneth Shay, DDS, MS, director of geriatric programs for the VA Office of Geriatrics and Extended Care, VA Central Office, Washington, DC. Please send suggestions for future columns to Kenneth.Shay@va.gov.



Table 1. Depression severity scores and responses to the Brief Illness Perception Questionnaire

Variable	Mean (SD)
PHQ-9	7.7 (5.1; range 1-22)
BIPQ items	
1. Consequences: How much does your illness affect your life?	6.3 (2.4)
2. Time line: How long do you think your illness will continue?	5.9 (3.2)
3. Personal control: How much control do you feel you have over your illness?	4.3 (2.9)
4. Treatment control: How much do you think treatment can help your illness?	6.7 (1.9)
5. Identity/label: How much do you experience symptoms from your illness?	5.9 (2.2)
6. Coherence/understanding: How well do you feel you understand your illness?	5.7 (2.9)
7. Emotional representation: How much does your illness affect you emotionally?	6.5 (2.0)
8. Illness concern: How concerned are you about your illness?	6.6 (3.1)

Note: Participants responded on a scale of 1 to 10 for the BIPQ. Higher scores are worse except that personal control, treatment control, and coherence/understanding are reverse scored.

BIPQ = Brief Illness Perception Questionnaire; PHQ-9 = Patient Health Questionnaire-9; SD = standard deviation.

Prior research suggests that older adults may hold different beliefs about depression diagnosis and treatment compared with those of younger adults, although this belief has not been extensively examined among older veterans.²⁻⁴ Beliefs held by older adults about depression are more likely to reflect a social rather than a medical model. For example, older adults report that “loss” and “relationships” are primary sources of depression compared with the beliefs of younger adults who endorse more biologic factors contributing to their depression.^{2,5} Patient-centered education that addresses these beliefs has the potential to improve the care provided to older veterans and may serve to encourage older veterans to better understand their symptoms and discuss needed treatment with their HCPs.

SELF-REGULATORY MODEL

The Self-Regulatory Model (SRM) is a model of patient health beliefs.⁶ The SRM was chosen to guide the design

of this QI project because it captures patients’ personal beliefs about an illness by asking them about their perceptions of different components of depression, including identity (label/symptoms), cause, consequences, time line, and cure. The SRM also was chosen because it focuses on the veterans’ personal experiences of depression diagnosis and treatment and has been used successfully to design educational interventions for improving management of other chronic medical conditions.^{7,8}

METHODS Participants

A sample of 23 older veterans were recruited from an interdisciplinary geriatric primary care-behavioral health (Geri-PCBH) program at VAPAHCS designed to treat late-life depression within the primary care setting. All the participants were referred for treatment from their HCPs. Self-report depressive symptoms ranged from mild to severe (Table 1). Diagnoses included adjustment dis-

order, depression disorder not otherwise specified, and major depressive disorder (MDD). All participants were male, and the majority were white (22 of 23). The average age was 81.2 years (standard deviation [SD] = 7.6; range 67-96). Most participants were married (47.8%) or widowed (34.8%). Education level was distributed as follows: high-school graduates (17.4%), some college (30.4%), college graduates (34.8%), and graduate work (13%). A majority of participants (78.3%) had previously received mental health counseling services within VA for a mood disorder. A minority of participants reported a history of non-VA counseling services (9.5%). About one-third of the participants (30.4%) reported previous use of medication for depression. About two-thirds (60.9%) reported their health as good or very good.

Procedure

The project was approved by the local Research and Development

Table 2. Components of the SRM and associated codes with reliability estimates (N = 23)

	No. endorsed (%)	Kappa for SRM components	Kappa for codes
Identity		0.936	0.796
Depressed mood/irritability/stress	16 (69.6)		
Feelings of worthlessness	14 (60.9)		
Anhedonia	12 (52.2)		
Vegetative symptoms	10 (43.5)		
Physical/medical symptoms	1 (4.3)		
Cause		0.880	0.973
Interpersonal	17 (73.9)		
Stress	14 (60.9)		
Medical illness	14 (60.9)		
Lack of independence	9 (39.1)		
Consequences		0.905	0.849
Increased negativity	15 (65.2)		
Motivational/change in activities	12 (52.2)		
Interpersonal	11 (47.8)		
Control/cure		0.937	0.976
Positive coping actions	20 (87.0)		
Believe depression is curable	11 (47.8)		
Externalizing the depression	10 (43.5)		
Time line		0.984	0.852
Chronic	10 (43.5)		
Acute	9 (39.1)		
Intermittent	1 (4.3)		

SRM = self-regulatory model.

Service as a QI project. Enrollment started in June 2011. At that time, some participants (14 of 23) had already completed treatment in the Geri-PCBH program and were contacted posttreatment to complete the interview. The other participants (9 of 23) were contacted during treatment. The participants needed to agree to treatment in the Geri-PCBH program in order to be included in the QI project. A semistructured interview was developed based on the

5 components of the SRM (identity/symptoms, cause, consequences, time line, and cure). Qualitative analysis, guided by previously published research, was used to determine beliefs about depression that were obtained from responses to the semistructured interview.^{9,10}

Measures

The Brief Illness Perception Questionnaire (BIPQ) was used to measure illness perceptions.¹¹ The BIPQ

includes 8 items that assess illness consequences, time line, personal control, treatment control, identity/label, coherence/understanding, emotional representation, and illness concern. Responses are on a Likert scale.

The Patient Health Questionnaire-9 (PHQ-9) was used as a baseline assessment of depressive symptoms.¹² The PHQ-9 included 9 items that are consistent with the diagnostic criteria for MDD. Pa-

tients were asked to respond to these 9 items based on whether, in the past 2 weeks, the symptom occurred not at all (0), several days (1), more than half the days (2), or nearly every day (3). Scores ranged from 0 to 27, with higher scores indicating more severe depression.

A semistructured qualitative interview was designed for the purposes of this project. Participants were asked questions about depression beliefs, which aligned with the 5 components of the self-regulatory model.⁶ Open-ended questions focused on the participants' beliefs about symptoms indicative of depression ("What symptoms do you experience as part of your mood problems?"); causes ("What do you think was the cause of your mood problems?"); consequences ("What do you think are the consequences of low mood?"); controllability ("Do you feel that anything can be done to improve your mood problems?"); and time line ("Do you consider your mood problems a permanent or temporary problem?") of depression.

Analysis Plan

To determine overall perceptions about depression, the mean scores for the BIPQ were examined. Correlations were used to examine whether BIPQ item scores varied by age and depression severity. Next, each participant's responses to the semistructured interviews were analyzed independently by the first and second authors to determine which components of the self-regulatory model were discussed by participants (identity, cause, consequences, control/cure, or time line).

Beliefs about depression within each component of the SRM were determined by reading each interview and developing a coding system that captured participant responses

to each of the 5 open-ended questions of the semistructured interview. For example, if a participant discussed the cause of symptoms, codes were created that represented all the different causes discussed by participants. The initial depression belief codes used were those outlined by prior published research examining personal illness models in depression.^{9,10} Codes about depression beliefs were then expanded and modified as needed to reflect the content of the transcripts (ie, some codes developed by these authors were not discussed by participants). Independent samples *t* test were used to examine whether frequency of the codes varied by age and depression severity.

RESULTS

Table 1 presents averaged responses to the items on the BIPQ. Correlations revealed a trend toward older participants reporting less concern about depression, as indicated by lower scores on the Illness Concern item of the BIPQ ($r = -0.407$; $P = .054$). Responses to the BIPQ did not vary significantly by depression status.

Qualitative Results

Table 2 presents the codes that were developed to represent participant beliefs about depression within each of the 5 components of the SRM. Also provided are reliability estimates for both the 5 components of the SRM (as categorized by the first and second author) and the codes that were developed in the current project to reflect specific depression beliefs (as categorized by 2 independent raters).

Within the *Identity* category, 5 codes were used to capture the symptoms that the participants associated with depression: depressed mood (including irritability, anger,

and stress); feelings of worthlessness (including thoughts about death and feelings of hopelessness and despair); loss of interest in activities or socializing; vegetative symptoms (including weight loss/gain, change in appetite, sleep problems, or low energy); and physical/medical symptoms (including heaviness in limbs, backache, headaches, or muscle aches):

- I would say that depression can fool you, because it can express itself in the form of irritability, and not necessarily I can't get out of bed in the morning, I can't laugh anymore, filled with gloom and doom. (Depressed mood)
- I didn't care whether I lived anymore or not, in fact I probably felt more like I would rather end it and take care of it that way. (Worthlessness)

Four codes were used to capture beliefs about the *Cause* of depression: interpersonal or intrapersonal problems (including marital problems, family problems, friend problems, and inner conflict); stress; medical illness/reaction to illness; and loss of independence (including lack of resources such as transportation). All participants discussed at least 1 cause of depression. Examples include the following:

- I've had some problems come up that individually are fairly minor, but cumulatively they represent quite a hurdle. (Stress) The habit of spending time alone and failing to immerse yourself in any social activities is a real, real killer. (Interpersonal)
- There was, because of blood pressures, changes in the medication that were made that may not have been totally necessary if I had opened up then about my mood. (Medical Illness). Well, there are 2 areas – number 1, one

of my sons is going through a divorce. (Stress) The other one is that between me and my wife, we certainly could do a better job of listening to each other and then responding. (Interpersonal)

Three codes were used to capture participant responses about the *Consequences* of depression: negativity/psychological consequences (self-deprecation, “got down on self”); motivational consequences (lacked energy; changes in daily activities); and effects on significant others/interpersonal consequences:

- Same thing with my friends, they would e-mail me, and I wouldn't respond, and then they would call, communicate with my wife saying, “What's wrong with him? I haven't heard from him. Does he want to talk to me anymore?” Kind of like shutting people off. (Interpersonal consequences)
- Then you get down on yourself and feel you are at fault, I am at fault. My life, I should be able to control it. I am not coping properly with the adverse events. (Negativity)
- Well, and not only was it affecting my sleep but it was affecting my eating habits. (Motivational/daily changes)

Three codes were applied to participants' beliefs about the *Control and Cure* of depression: positive ways of dealing with depression (self-directed actions taken to cope); the belief that depression is curable (ie, participant expresses hopefulness that change can occur); and externalizing the depression to something outside of the participant's control:

- I have been trying to stay well and get well continuously. (Curable)
- Well, you have to do things to

keep yourself busy. (Positive coping)

- I no longer have an automobile, and if I had a car I would have the flexibility to seek out pleasures and enjoyment. (Externalizing)

Codes within the *Time Line* category included chronic; acute; or intermittent only (comes and goes):

- It comes and it goes. (Intermittent)
- Temporary. I thought it would eventually go away. Maybe it was more wishful thinking, but the talking about it and doing plans to do something active made me feel like I could do something about it. (Acute)
- I guess I considered, I didn't see any light at the end of the tunnel. I'd have to say it was a problem I was going to have for the rest of my life. (Chronic)

The extent to which participants endorsed each belief generally did not vary by age or depression severity except that those endorsing vegetative symptoms ($n = 10$) reported more severe depressive symptoms than those not endorsing vegetative symptoms ($n = 13$; mean PHQ-9 score = 10.20, SD = 6.07 vs 5.69, SD = 3.15, respectively; $t(21) = -2.31$, $P = .031$).

DISCUSSION

The goals of the QI project reported here were to understand older veterans' beliefs about depression and depression treatment. A qualitative design, informed by a model of personal health beliefs, the SRM, was used to understand beliefs about depression diagnosis and treatment as expressed by a sample of older male veterans referred for depressive symptoms to a VAPAHCS GRECC clinic. By using a qualitative design that allowed patients to discuss their personal beliefs about depression,

the project sought to better understand patient-specific beliefs about depression. It is hoped that this information will lead to development of patient-centered education about late-life depression that focuses on patient-provider discussion and increases patient openness to mental health services.

Specific beliefs about depression discussed by the participants suggest that stress and interpersonal factors may play a large role in contributing to the onset of depressive symptoms. Many of the participants discussed family transitions (eg, grandchildren moving in with them) or other transitional stressors that contributed to feelings of depression. Results also suggest that older male veterans tend to cope with depression through positive actions aimed at symptom control, such as exercise, socialization, or other means. These coping methods may initially work to improve depressive symptoms, although some older veterans may need to seek professional help when these self-help techniques are no longer working. Providing education to older veterans about how mental health treatment can help individuals cope with depression and with interpersonal stressors may be beneficial for early detection and treatment. This type of education could be provided in print materials, through online platforms such as My HealtheVet, or through face-to-face education provided by HCPs in the clinic.

The oldest veterans in this sample expressed less concern about depressive symptoms than did the younger veterans. This highlights the need to screen for depressive symptoms in primary care, as older adults may minimize symptoms. It also suggests that additional discussion may be needed to convince older adults that intervention is appropriate because of

their low concern about symptoms. Although the oldest-old veterans may not perceive significant concern over depression symptoms, these symptoms can have a significant impact on QOL and physical functioning.^{13,14}

LIMITATIONS

Limitations of the current project include its focus on the experience of older veterans attending VAPAHCS GRECC clinics. The results may not generalize outside this local patient population. Additionally, patients were selected based on their interest in the Geri-PCBH program and their willingness to participate in the QI project. This sample was chosen, because they were able to discuss beliefs that informed their views on depression diagnosis and treatment. Further research is needed to determine whether patient-centered education that incorporates the beliefs discussed in the current QI project will lead to improvement in discussing depression and treatment with providers or an increase in use of mental health services by older veterans. As this project was exploratory and based on a small sample of older veterans, further research with a larger and more representative sample is needed to determine whether these beliefs are consistent in a larger sample and across other settings.

SUMMARY

The results of this QI project suggest that older veterans may hold specific beliefs about the causes and treatment of depression, including low concern about depressive symptoms, the belief that interpersonal

stressors will resolve naturally, and that individual coping efforts are sufficient to manage depression symptoms. Patient-centered education that incorporates these beliefs, perhaps through the use of direct quotations or testimonials from patients, may serve to increase the likelihood that older veterans discuss their symptoms with HCPs and consider mental health treatment. Future directions include development and implementation of a patient-centered educational intervention about late-life depression. This type of intervention may increase rates of mental health treatment initiation among older male veterans by presenting educational information about late-life depression that is consistent with patient beliefs. ●

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