Original Article

Evaluation of a New Integrative Health and Wellness Clinic for Veterans at the San Francisco VA Health Care System: A Mixed-Methods Pilot Study

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Abstract

Objective: The Integrative Health and Wellness Clinic (IHWC), established in 2019 at the San Francisco VA Health Care System, is an interdisciplinary clinic consisting of a medical provider, dietician, physical therapist, and psychologist trained in complementary and integrative health (CIH) following the VA Whole Health model of care. Veterans with complex chronic conditions seeking CIH and nonpharmacologic approaches are referred to the IHWC. This study evaluated the clinic's acceptability and feasibility among veteran patients and its preliminary impact on health and wellbeing, health-related goals, and use of CIH approaches.
Methods: Mixed methods were used to assess patient-reported outcomes and experiences with the IHWC. Participants completed surveys administered at baseline and 6-months and a subset completed a qualitative interview. Pre- and post-scores were compared using t-tests and chi-square tests.
Results: Thirty-five veterans completed baseline and 6-month follow up surveys. Of these, 13% were women; 24% < 50 years of age, and 44% identified as racial/ethnic minorities. Compared to baseline, at 6 months, there were significant ($P < .05$) improvements in overall health, physical health, perceived stress, and perceived helpfulness of clinicians in assisting with goal attainment; there was a trend toward improved mental health ($P = .057$). Interviews (n = 25) indicated satisfaction with the interdisciplinary clinical model, support of IHWC providers in goal attainment, and positive impact on physical and mental health. Areas for improvement included logistics related to scheduling of multiple IHWC providers and referrals to other CIH services.
Conclusion: Results revealed significant improvement in important clinical domains and satisfaction with interprofessional IHWC clinic providers, but also opportunities to improve clinic processes and care coordination. An interdisciplinary clinic focused on CIH and Whole Health is a feasible and acceptable model of care for veterans with complex chronic health conditions in the VA healthcare system.

Keywords

integrative medicine, veterans, whole health

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Background

The use of complementary and integrative health (CIH) approaches is steadily increasing in the United States, including within healthcare settings.[1-4] Over the past decade, the Veterans Health Administration (VA) has expanded provision of CIH approaches as part of standard care for veterans.[2,5,6] This expansion has been driven by increasing evidence for the effectiveness of CIH approaches for a variety of health conditions,[7] increasing demand from veterans,[2,8] a critical need for nonpharmacologic pain management strategies to address opioid-related risks,[9] and legislative and policy support for CIH.[5] VA Directive 1137 was issued in 2017, which mandated that eight CIH approaches be covered under the veteran's medical benefits package: acupuncture, massage, guided imagery, biofeedback, hypnotherapy, *t'ai chi*, yoga, and meditation.[6] Separately, chiropractic care has been offered in the VA since 2005.

While individual CIH approaches can be delivered as standalone services, they are also core components of the VA's larger transformation to a Whole Health System of care.[10] The Whole Health system shifts from a disease-centered approach to a model that centers Veterans' own health goals within a patient-centered, proactive personalized health plan emphasizing self-care and CIH approaches in conjunction with conventional care. The VA's Whole Health System is organized around three main components: (1) a Pathway that focuses on patient empowerment and goal setting, often in collaboration with trained Veteran peers and Whole Health coaches; (2) Well-Being programs focused on self-care, use of CIH approaches and skill building; and (3) Clinical care that combines both conventional and CIH to address personal health goals.[11] Nevertheless, while implementation of Whole Health and CIH within clinical care has steadily grown,[12,13] there are few comprehensive integrative health clinics in VA that integrate provision of clinical integrative medicine with allopathic care delivered by an interdisciplinary team in alignment with the Whole Health model.[14] It is not yet clear whether this type of clinical model is acceptable and feasible to veteran patients within VA settings.[14]

Integrative Health & Wellness Clinic at the San Francisco VA Healthcare System

The Integrative Health and Wellness Clinic (IHWC) was established November 2019 within the Integrative Health Service at the San Francisco VA Healthcare System (SFVAHCS). Using evidence-informed CIH and non-pharmacologic approaches and the VA Whole Health model of care, the IHWC provides consultative holistic patient-centered care for the San Francisco VA Medical Center and seven Community-Based Outpatient Clinics (Santa Rosa, Eureka, Ukiah, Clearlake, San Bruno, Downtown San Francisco, and Oakland) through virtual and in-person visits. At the time of this study, core clinic members include integrative health medical providers (e.g., two MDs, one NP), a psychologist, a registered dietician, and a physical therapist, all supported by an RN care manager, LVNs, and other administrative staff. The clinic addresses veterans' complex chronic health concerns (e.g., fibromyalgia, irritable bowel syndrome) by encouraging use of non-pharmacologic and CIH modalities within the domains of nutrition, movement/exercise, sleep, and stress reduction in conjunction with conventional approaches and medications. Patients are also referred to other clinical and well-being programs within the Integrative Health Service as needed, such as acupuncture, chiropractic care, integrative social work, integrative occupational therapy, yoga, and Whole Health coaching.

Patients with chronic health conditions who express interest in integrative modalities are referred by a variety of SFVAHCS clinicians, including primary care and mental health providers, through an electronic consult. Patients first have an appointment with a nurse to complete a pre-clinic integrative medicine intake focused on lifestyle and health behaviors and a VA Whole Health Personal Health Inventory (PHI),[15] eliciting patients' own values and goals for their health and life. Prior to patients' initial visit, the interdisciplinary IHWC team huddles to review the patients' history and PHI together, and proactively plans for the first medical provider visit. Patients then have a one-hour visit with the integrative medical provider consisting of a holistic assessment and development of a VA Whole Health Personalized Health Plan, consisting of short-term specific, measurable, action-oriented realistic and time-bound (SMART) goals. IHWC medical providers use a templated note in the VA electronic health record with other IHWC clinicians and staff added as co-signers to apprise them of the initial personalized health plan. Referrals to other core IHWC clinicians and other Integrative Health services are placed as needed. New and returning patients are discussed at weekly virtual case conferences and through additional ad-hoc communications (instant messaging, emails, calls).

The primary aims of this mixed methods quality improvement study were to evaluate the clinic's acceptability and feasibility from the perspective of veteran patients and its preliminary impact on veterans' self-reported health and wellbeing, attainment of health-related goals, and use CIH approaches. We also solicited suggestions for improvement to inform refinement of the clinic model.

Methods

Study Design, Setting, and Participants

This was a prospective observational study of a sub-sample of new patients referred to the SFVAHCS IHWC between March 2021-March 2022. All new patients were invited to participate in a baseline survey. Upon enrollment in the clinic

and prior to their first visit with an integrative medical provider, participants were invited to complete a telephone survey administered by a research assistant who recorded their responses in a secure electronic database (VA RedCap). Between three and 6 months, participants were invited to participate in an individual qualitative semi-structured interview. Six months after baseline, participants were asked to complete a follow-up telephone survey. As this was an unfunded evaluation, patients were not compensated for participating in the survey or interview. The study was approved by the University of California, San Francisco IRB and SFVAHCS Committee on Human Research.

Survey Data Collection & Analysis

Survey instruments included demographic questions (baseline only) and other measures at baseline and 6-months to assess general health and wellness, utilization of integrative heath and self-care modalities, and patient satisfaction. Validated scales were administered by a research assistant including the Patient-Reported Outcomes Measurement Information System 10 (PROMIS-10) –Question Short Form – Global Health measuring overall mental and physical health[16]; the Perceived Stress Scale – 4 Item (PSS-4) measuring perceived stress[17]; and the Perceived Health Competence Scale – 2 Item (PHCS-2) measuring perceived competence to manage one's health.[18] We also asked about utilization of CIH modalities and self-care resources using an adapted Questionnaire to Measure Use of Complementary & Alternative Medicine (CAM-Q).[19] We also asked patients about their goals for care using the Goals Inventory from the VHA Veterans Health & Life Survey,[20] how much progress was made towards their main goal on a 5-point scale (1 = almost no progress to 5 = goal reached), and finally how helpful IHWC providers were in assisting patients in making progress towards their goals on a 5-point scale. Survey data were exported to Stata 17.0 for analysis. Frequencies were tabulated for baseline characteristics. Baseline and follow-up survey responses were compared using paired t-tests for continuous responses or McNemar's chi-square tests for binary responses.

Qualitative Data Collection & Analysis

All veterans who completed the baseline survey were also invited to participate in a semi-structured qualitative interview to provide deeper insight into their experience with the IHWC. Interviews were conducted by a medical anthropologist (FN), qualitative analyst (SM), and research assistants trained in qualitative methods (HU, BM). Interviews focused on reasons for seeking out an integrative health clinic, impact on health and health-related goal attainment, satisfaction with care, and suggestions for clinic improvement. Phone interviews lasted 30-60 minutes and were audio-recorded with participant permission.

Interviews were analyzed using a templated approach to rapid qualitative analysis developed for health services research.[21] This technique was designed to be time- and resource-efficient, and has been found to balance rigor with pragmatism while yielding results that are comparable to traditional qualitative methods like thematic analysis.[22] After interviewers entered detailed notes and transcribed relevant quotations into a Microsoft Excel template organized by an interview guide domain, another study team member listened to the audio-recording of each interview, confirmed the accuracy of the interview notes, and filled in additional details and quotations. To establish reliability and validity among analysts, two study team members independently examined the first 5 audio files and templates. We then independently reviewed and compared templates to ensure consistency in the identification and description of key themes. Preliminary themes were then incorporated into summary documents for each interview guide domain. We resolved discrepancies through consensus-based discussion, with audio files consulted as needed to confirm interpretation of qualitative findings.

Results

Participant Characteristics

Of the 151 veterans contacted by the study coordinator during the recruitment period (March 2021-March 2022), 62 completed the baseline survey. Fourteen participants actively withdrew after completing the baseline survey and 13 were lost to follow-up before the 6-month survey. Thirty-five of the 62 initial participants completed both baseline and 6-month follow-up surveys and are included in the quantitative analysis of survey results. Among survey participants, most were men (83%) and older than 50 years (85%). Two-thirds identified as White; 20% were Black of African American; and 12% each were American Indian/Alaskan Native or Hispanic/Latino. Twenty-nine percent were referred from the urban medical center in San Francisco and 71% from community-based outpatient clinics, including 26% from rural areas in Northern California (Table 1). Twenty-five of the 62 (who had completed baseline surveys) completed semi-structured interviews and are included in the qualitative analysis. Characteristics of the interview participants were similar to those of survey participants (Table 1).

Survey Results: Change in Patient-Reported Outcomes from Baseline to 6 Months

In follow-up surveys, participants showed statistically significant improvements in overall health ($P < .002$) and physical health ($P < .002$) (Table 2). At 6 months, participants also showed statistically significant improvements in perceived stress ($P < .006$), where lower scores indicate less stress. There was a trend toward improved mental health on the PROMIS-10 Physical Health Scale ($P = .057$). No significant differences

Table 1. Baseline Participant Characteristics.

	Survey participants (N = 35)		Interview participants (N = 25)	
Characteristic	N	(%)	N	(%)
1. Gender (self-identified)				
Man	29	83	18	78
Woman	6	17	5	22
2. Age (in years)				
<49	5	14	3	13
≥50	30	86	20	87
3. Race and Ethnicity (Multiple Response)				
White/Caucasian	22	66	15	65
Black or African American	7	21	6	26
Native Hawaiian or other Pacific Islander	1	3	1	4
American Indian or Alaska Islander	4	12	3	13
Other race	1	3	1	4
Hispanic or Latino	4	12	1	4
4. Education				
Associate's Degree or Less	17	49	11	48
4-Year Degree or Greater	18	51	12	52
5. Current relationship status				
Single	9	26	5	22
Married or Partnered	23	66	15	65
Divorced, Separated, or Widowed	3	9	3	13

between baseline and follow-up scores were noted for perceived health competence (PCHS-2), quality of life (PROMIS-10), **or use of most CAM-Q modalities.** Compared to baseline, participants showed significant **decreases** in their use of relaxation techniques (***P* < .011**).

Veterans reported on their primary goals for IHWC care through open-ended survey responses at baseline. The most common primary goal area was physical health (e.g., increase exercise and movement, weight loss, improve fatigue, reduce pain; 56%), followed by nutrition and diet, (e.g., change or "improve" diet, address blood sugar, reduce alcohol intake; 18%), and mental health (e.g., address stress and anxiety, develop a positive mindset; 11%). Follow-up surveys did not show statistically significant self-reported progress toward reaching primary goal ($P < .117$). However, there was significant change from baseline to 6 months in perceived support of IHWC clinicians in helping patients make progress toward personal goal attainment ($P < .011$) (Table 2). In 6-month follow up surveys, on a 5-point scale (strongly disagree to strongly agree), participants reported that IHWC care helped "me exercise and move more" (mean 3.6, SD 1.0), "improve my eating habits" (mean 3.8, SD 1.0), and "improve my sleep" (mean 3.1, SD 1.1 SD), (data not shown).

Interview Findings

Overall, veterans found the clinic model to be acceptable, feasible, and in line with their goals and preferences for their health and life. Interviews provided insight into Veterans' experience across the following domains: interest in nonpharmacologic care and CIH approaches; an interdisciplinary team approach to individualized care; support from IHWC clinicians with health-related goals, and impact on health outcomes.

Patients Voiced Strong Interest in Nonpharmacologic Care and Complementary & Integrative Health Approaches

Veterans' reasons for seeking care in an integrative health and wellness clinic centered around general interest in nonpharmacologic approaches and beliefs/opinions that "Western medicine alone is not enough" (V-007, ≥65 years, White man). As one participant explained: "I want to take care of my body and let my body do what it's supposed to do, without being influenced by a pill or a medicine…I'm really against traditional 'give me a pill'" (V-002, ≥65 years, White man).

Related to a general interest in nonpharmacologic approaches, many interview participants also expressed a desire for support and guidance around nutrition, supplements, and "food as medicine." For example, one participant said, "The last thing I want is to start taking medications. I would rather treat things with eating right and being as healthy as possible, than be given statins to mask the true problem or be given medications to lower my blood pressure - I don't want that" (V-029, 60-64 years, White man).

Table 2. Survey Results (n = 35).

Measure	Baseline	6-month follow-up	Change	t	*P*
(a). Survey results of scaled measures					
PROMIS 10 Scale v1.2 Global Health: Physical Health 2a (2-10; higher indicates better self-reported physical health)	6.20 (2.06)	6.71 (1.93)	.51 (.20.0.83)	3.31	.002
PROMIS 10 Scale v1.2 Global Health: Mental Health 2a (2-10; higher indicates better self-reported mental health)	5.40 (2.14)	5.91 (1.93)	.51 (−.02,1.04)	1.97	.057
PROMIS 10 Physical Sub-Scale Raw Score (4-20; higher indicates better self-reported physical health)	11.6 (3.46)	12.26(3.35)	.63 (−.01,1.26)	2.01	.052
In general, would you say your health is: (1-5; 1 = poor, 5 = excellent)	2.71 (1.05)	3.06 (.97)	.34 (.04,0.64)	2.32	.026
In general, would you say your quality of life is:(1-5; 1 = poor, 5 = excellent)	3.03 (1.12)	3.26 (.95)	.23 (−.14,0.60)	1.24	.222
Pain on average during past 7 days (NRS, 0-10, higher indicates greater pain)	5.69 (2.51)	5.37 (2.53)	−.31(-1.00,0.37)	−.93	.358
Fatigue on average during past 7 days (1-5, higher indicates greater fatigue)	3.31 (1.21)	3.20 (1.21)	−.11(-.47,0.24)	−.66	.513
Perceived Health Competency Scale (PHCS-2, 2-10; higher indicates greater perceived competency)	6.80 (1.98)	7.03 (2.13)	.23 (−.51,0.96)	.63	.532
Perceived Stress Scale (0-16, lower indicates less stress)	7.09 (3.81)	5.47 (3.64)	−1.62 (−2.75, −.49)	−2.92	.006
Pittsburgh Sleep Quality Index: PSQI-3 (0-9; higher indicates worse sleep)	4.23 (2.47)	3.54 (2.33)	−.69 (−1.48,0.10)	−1.77	.086
Progress toward reaching primary goal (1-5; higher indicates greater progress)	2.62 (1.28)	3.12 (1.04)	.50 (−.13,1.13)	1.61	.117
How helpful were VA healthcare providers or coaches in helping you make progress on your primary goal? **(1-5;** higher indicates more helpful)	3.32 (1.36)	4.03 (1.19)	.71 (.17,1.24)	2.69	.011
Eaten about 5 servings of fruits and vegetables per day (range 1-5; higher indicates more servings per day)	3.21 (1.23)	3.53 (1.05)	.32 (−.07,0.71)	1.68	.102

Measure	Baseline N (%)	6-month follow-up N (%)	Change N (%)	McNemar χ^2	*P*
(b). Survey results of CIH modalities used					
CAM-Q Manual Modalities **(% reporting 1 or more modalities)**	14 (40%)	17 (49%)	3 (9%)	1.29	.257
CAM-Q Cognitive Modalities (1 or More)	33 (94%)	31 (89%)	−2 (-6%)	1.00	.317
CAM-Q Exercise Modalities (1 or More)	30 (86%)	30 (86%)	0 (0%)	.00	1.000
CAM-Q Natural Products Modalities (1 or More)	23 (66%)	22 (63%)	−1 (-3%)	.11	.739
CAM-Q Other Modalities (1 or More)	7 (20%)	5 (14%)	−2 (-6%)	.67	.414
1) Acupuncture	5 (14%)	7 (20%)	2 (6%)	.67	.414
2) Meditation/Mindfulness	24 (69%)	23 (66%)	−1 (-3%)	.09	.763
3) Yoga	6 (17%)	6 (17%)	0 (0%)	.00	1.000
4) Tai Chi/Qigong	4 (11%)	5 (14%)	1 (3%)	.14	.706
5) Biofeedback	1 (3%)	3 (9%)	2 (6%)	2.00	.157
6) Clinical Hypnosis	0 (0%)	1 (3%)	1 (3%)	1.00	.317
7) Guided Imagery	11 (31%)	8 (23%)	−3 (-9%)	1.00	.317
8) Massage	11 (31%)	12 (34%)	1 (3%)	.20	.655
9) Chiropractic Care or Manipulation	4 (11%)	6 (17%)	2 (6%)	1.00	.317
10) Physical Therapy	15 (43%)	13 (37%)	−2 (-6%)	.33	.564
11) Exercise	29 (83%)	27 (77%)	−2 (-6%)	.50	.480
12) Relaxation Techniques	28 (80%)	20 (57%)	−8 (-23%)	6.40	.011
13) Psychotherapy/Counseling	17 (49%)	16 (46%)	−1 (-3%)	.11	.739
14) Supplements and Herbal Remedies	23 (66%)	22 (63%)	−1 (-3%)	.11	.739
15) Other (n = 33)	7 (21%)	5 (15%)	−2 (-6%)	.67	.414

Some Veterans also explained how their interest in the IHWC was influenced by a desire to find holistic solutions to multiple, overlapping health conditions. For example, one veteran explained how his concerns encompassed work-related stress, age-related memory loss, joint pain, and digestion problems. He was interested in a holistic approach including how his diet might be contributing to multiple health concerns and had questions about the appropriateness of specific vitamins and probiotics to take and "was always asking my PCP about these things" but these questions were not addressed in primary care (V-029, 60-64 years, White man). Another veteran explained he was "happy to hear about an alternative clinic that a lot of people are looking for" (V-005, ≥65 years, White man).

Veterans Valued an Interdisciplinary Team Approach to Patient-Centered Care That Addressed Multiple Health-Related Concerns

A primary goal of IHWC is to provide individualized, integrative medical care through an interdisciplinary approach. Many veterans described a positive experience attributed to the personalized care in a clinic that "works with me" and is not an "assembly line kind of attitude." Others described how "Being able to meet with all sorts of providers has been good" (V-023, 30-39 years, multiracial man), highlighting the benefits of the interdisciplinary model. As one veteran explained:

> "It's like a pie chart. They're all communicating with one another in the areas of their slice of the pie for my whole benefit. It's very dynamic in how they're talking behind the scenes and then recommending and making suggestions as to things I should consider, the things that I should start moving towards. This concept is what I wanted but never knew existed. When I found out about it, I was truly aghast, to have it all packaged the way that it is, it's like I have my own team of professionals . . . an eating coach . . . a mental health [provider], meditation. Like a professional athlete, they have to have these type of coaches, but here I am a veteran that is getting the same thing at no cost to me from the VA" (V-024, 60-64 years, Black/African American man).

In general, patients were satisfied with the interdisciplinary communication among the providers as well as communication with patients in a patient-centered manner. Patients described interactions with IHWC clinicians as supportive and that "they're really trying to help you," and "they really listen and have time to discuss [concerns]" (V-078, 60-64 years, Black/African American woman). In terms of decision-making, one patient described how, "They asked me what my thoughts were, and then there was another exchange and then we closed by talking about plans moving forward. That's how it's been" (V-034, 30-39, Black/African American woman).

Others shared that the interdisciplinary model was ideal to address complex health-related concerns. For example, one veteran described how she found it harder to keep weight off as she grew older, and she originally wanted to work on nutrition and diet. She is also dealing with chronic pain and mobility issues that sometimes made it hard to walk and had questions about medications and supplements. She explained how team-based care allowed her to start "working on all fronts at once" (V-008, 40-49 years, Native American/White woman).

However, not all patient experiences with aspects of the interdisciplinary team approach were positive. In some cases, Veterans found it challenging to coordinate care between multiple IHWC clinicians and were not sure "what the next step is" (V-012, ≥65 years, White man). As one Veteran explained, "I'm not sure who's in charge. I feel like it's more…into the hands of the physical therapist and then over somewhere else, the acupuncturist…I don't feel like I'm being coordinated by one person who is managing where I'm getting my follow up...maybe it has been coordinated but I don't recall one person who's been...managing me as a patient" (V-017, ≥65 years, White man).

Veterans Made Meaningful Progress Across Variety of Health-Related Goals

Interviews supported the survey results that showed a high degree of helpfulness of IHWC providers in making progress toward health-related goals. For example, one veteran explained how working with IHWC "has been really great in the sense…everybody communicates about what's going on with you and your progress or what they think should be the next steps" (V-008, 40-49 years, Native American/White woman). Another patient noted, "I've turned the page or closed the book and I've started a new chapter" (V-024, 60-64 years, Black/African American man).

Impact on Health Outcomes - Physical Health, Exercise, Movement

Interviews highlighted improvements in overall health and physical health and that mirrored findings from the survey (Table 2). For example, one patient explained how a holistic approach impacted their overall health goals through integrating "some breathing exercises, meditation, getting the diet better…starting kind of working out at least you know, getting some fresh air. Stuff like that" (V-023, 30-39 years, multiracial man). Others commented on more targeted approaches such as physical therapy, which one patient described as "the best because it was very specific and helpful" for their condition. Many also expressed appreciation for referrals to Tai Chi, yoga, or other

movement groups. Although improving physical health was the most frequent primary goal among open-ended survey responses, during interviews, patients tended to focus on the impact of other aspects of IHWC care, as described below.

Improved Stress Management, Mindfulness & Mental Health Support

Interview findings further explained survey results reflecting increased use of relaxation techniques including mindfulness, meditation, breathing techniques, and incorporation of biofeedback during visits with a medical provider. One patient with an illness that affects breathing said that the "mindfulness person [gave] some good advice about breathing." He explained how, "Learning to sit and quiet yourself has seen the most positive results. We all get caught up in the world and sometimes it only takes awareness of breathing, in/out, and you can center back right where you are" (V-032, ≥65 years, Black/African American man). Another veteran credited the relaxation and stress management techniques he learned with helping him feel "not as bad as I was at the end of the day" (V-029, 60-64, White man).

In addition to a variety of mindfulness and relaxation techniques utilized by all IHWC clinicians, some veterans described the benefits of mental health support from the clinic's integrative psychologist. For example, one veteran mentioned that the team encouraged her to try counselling and she found it more helpful than she would have imagined. When asked what she thought was the most effective aspect of IHWC care was, she said, "For right now, it's the counselling part of it, 'cause I'm there every week" and explained that she had not engaged with a mental health provider prior to initiating care with the IHWC (V-008, 40-49 years, Native American/White woman). Another patient described how the mental health provider worked with him on reducing stress using his breathing, which he used frequently to manage work-related stress in addition to the help he received to define boundaries at work so that everyone else's problems did not become his problems.

However, referral to a mental health provider was sometimes viewed negatively. For example, one Veteran explained his "sensitivity to psychological assistance" given his history with psychiatric care and not wanting to bring up "painful memories" from "a box that [he] managed to close and doesn't want to open again." He emphasized that for some Veterans, introducing mental health providers in the context of an integrative health clinic should be explained clearly because, "The last thing you want to do is make a person feel like something is wrong with them" (V-032, ≥65 years, Black/African American man).

Nutrition Support and Dietary Changes

During interviews, dietary changes that were commonly mentioned were decreasing intake of processed foods and use of cooking oils, adopting an anti-inflammatory diet including decreasing sugar and alcohol consumption. Veterans also described the impact of an integrative approach to nutrition as part of their IHWC care, even if their initial goal was not related to nutrition. As one veteran explained, they learned "…how food can have a destructive element to our health through our gut. I'm now beginning to understand the things I need to eat to support the good bacteria…to do away with inflammation to reduce arthritis and a whole host of health benefits through really minor shifts in what to eat" (V-024, 60-64 years, Black/African American man). While many patients described how they improved physical health and pain management through incorporating movement and exercise into their care plan, others were surprised to learn how an anti-inflammatory diet could impact pain:

> "Decreasing the amount of pain I go through in a day is definitely a goal that's been met. . . . Pain cycles don't last as long. . . It's like, I can still generate a pain cycle by getting out of bed too quickly or standing up too fast or...the jarring effect from coming downstairs can start a pain cycle, but the pain cycle that starts doesn't last too long since I've exerted more effort towards removing processed foods from my diet [and using] less cooking oil" (V-020, 50-59 years, self-identified "human" man).

One veteran explained how working with the integrative dietician impacted the way he thought about food and nutrition and he had adopted a diet that was more varied and "entertaining." He explained:

> "It was really helpful when she told me, 'If your grandparents and great grandparents would recognize the foods then go ahead and eat that.' Because my grandparents, they totally had a very different diet than the American diet that we eat today. For example . . . my grandparents would make a bowl of hominy grits and eggs, these are things I can do. Big pots of oatmeal. I live in an area of the state . . . where there is every kind of produce grown out here. Instead of going to [a grocery store], I can go to the farmer's market for fresh produce. I love to eat that way." (V-032, ≥65 years, Black/African American man)

In addition to dietary changes, others appreciated information and guidance regarding supplements. As one veteran said, "I would say also that the nutritional advice was very informative about specific vitamins, minerals and supplements in my diet" (V-005, ≥65 years, White man). Another patient explained how seeing an integrative medicine physician was helpful because they identified "some abnormalities with my labs," and she received advice to decrease some supplements of which she was taking too much.

Challenges With Goal Attainment and Lifestyle Change

However, some Veterans described challenges with reaching or maintaining their goals. This was often due to a lack of time in IHWC care. For example, one Veteran said it was "too soon to tell." A common theme among participants who had not met their primary goal at the time of the interview was that "change takes time." One described the process of behavior change as "a struggle … but it's part of the process" (V-023, 30-39 years, multiracial man) while others explained that "it may take a while to get into a groove" (V-019) and that "the ball's in my court (V-005, ≥65 years, White man)."

Although many appreciated the ability to access to IHWC clinicians through telehealth, one participant explained how, in the context of the COVID-19 pandemic, during which this study took place, all IHWC visits occurred via telehealth which they said negatively impacted their ability to achieve or maintain changes: "I don't just want a touch-and-go situation because I'll probably drop the ball on that… I want to change but I need help changing and if it's just a matter of trying to show up in virtual visits…it felt like that wasn't as helpful" (V-006, 30-39 years, White woman).

Discussion

In this mixed methods evaluation of an interdisciplinary, VA Whole Health-based integrative health and wellness clinic, veterans reported improvement in a variety of health-related outcomes, including overall health, physical health, and perceived stress. Survey data showed no significant change in other areas such as personal goal attainment, although this lack of change may reflect the small sample size. Interviewed participants expressed satisfaction with the interdisciplinary clinical model, appreciated the support of IHWC providers in goal attainment and incorporation of CIH/self-care approaches, and believed the IHWC helped them make important lifestyle changes that holistically addressed different medical problems and improved overall well-being.

With respect to mental health and stress, interview participants often noted increased use of relaxation techniques and breathing exercises, while survey results found a non-significant trend toward improvement on the PROMIS mental health scale, likely due to small sample size. However, other quantitative data did show significant reduction in perceived stress, which was supported by qualitative findings. There was discordance between quantitative survey items and qualitative findings regarding use of relaxation techniques. Although survey results found a significant decrease in use of CAM-Q relaxation techniques, interview findings highlighted the impact of breathing practices. The uptake of breathing practices is an important outcome because these are durable self-management skills patients can utilize without direct involvement of clinicians.

It is notable that an integrative approach to diet and nutrition was identified by so many study participants as valuable. This area was a primary goal for only a small proportion of participants, yet the qualitative data points toward an outsized impact of integrative nutrition as a core component of IHWC's interdisciplinary approach to care. Specifically, patients expressed excitement in learning about how food could be used as medicine. They expressed appreciation for IHWC providers with whom they could discuss dietary supplement use, as dietary supplement use is prevalent, yet few patients feel they can discuss their use of supplements with their primary care providers.[23,24]

There was a divergence between quantitative and qualitative findings with regards to goal attainment. While survey results did not show significant progress on participants' primary health goal, qualitative interviews revealed that many patients perceived goal attainment to be a work-in-progress. Thus, qualitative methods are important when assessing patient experience around behavior change. Indeed, patients remarked that time is needed to make enduring lifestyle changes, and because surveys were completed only 6 months after starting IHWC care, not enough time may have elapsed to fully achieve health goals. Future studies might allow for a longer follow-up period to capture meaningful behavior change as a result of clinical interventions (e.g., interdisciplinary integrative approaches, Whole Health coaching). Furthermore, many participants' primary goals were related to physical health, yet they discussed the impact of IHWC care in a more holistic way, describing how their experiences also improved their mental health and reduced stress.

Participants in this study found the interdisciplinary integrative approach to health care to be an effective model for addressing multiple health-related concerns simultaneously and appreciated coordinated access to a variety of CIH clinicians and wellness programs. Prior research has found that a key facilitator to successful CIH implementation in the VA system is having centrally organized CIH services rather than making CIH services available only within particular disciplines such as mental health or rehab services.[25] Models for comprehensive, interdisciplinary, integrative medicine clinics are prevalent in the private sector and academic medical centers,[4] yet this model of an interdisciplinary Whole Health CIH-driven approach to clinical care has not been widely disseminated across the VA. One VA study described an Integrative Health and Wellness Program which offered a variety of separate services such as individual acupuncture, group auricular acupuncture, chair yoga, qigong, integrative restoration (iRest) yoga nidra meditation, and integrative health education.[26] However, our study differs from this earlier study and clinic model in two important ways. First, the IHWC is organized around the VA Whole Health system of care and utilizes the Personal Health Inventory and personal health planning. Second, the IHWC provides collaborative, interdisciplinary team-based clinical care with integrative medical providers and other integrative health

clinicians entering into shared decision-making with patients to select evidence-informed CIH and wellness options that address patients' health concerns and needs that align with patients' personal values and goals.

Recent studies have shown the impact of the VA's investment in the dissemination of a Whole Health System of care and implementation of CIH modalities to support personalized and patient-centered care,[12,27] including reduction in opioid use among patients with chronic pain.[28,29] The VA Whole Health model directs patients to identify health and wellness goals up front and engage with clinicians in achieving these goals, yet the actual clinical models for having VA providers engage with patients in collaborative health goal attainment is not well developed or in widespread use. IHWC represents a model which fosters shared decision-making and support for patients with a variety of chronic health conditions in accessing CIH/Whole Health resources for goal attainment and behavior change. Our data indicated that patients felt supported by IHWC providers in working toward their health goals. As team-based interdisciplinary care is the standard model in the VA for primary and some specialty care (e.g., HIV, chronic pain care),[30-34] our findings suggest that interdisciplinary integrative health clinics could be used to help guide patients toward evidence-based and best-practice use of CIH and Whole Health resources in VA. Our findings also indicate the potential effectiveness of such a model to support patients' holistic health and wellness goals.

Our results should be interpreted with several limitations in mind. First, this was a small observational quality improvement study that relied on self-report with no objective measures or biomarkers for clinical outcomes. Results may have been influenced by ascertainment bias, as patients who completed 6-month follow up surveys had a longer duration of engagement with the IHWC, and we did not obtain survey responses from those who withdrew or were lost to follow up. There was a high non-response rate to the 6-month survey, which was in part due to lack of monetary incentives for completion. Further, the study population was predominantly White male patients over 50 years of age and the sample size is too small to allow for comparison by demographic subgroups. Finally, there may be unmeasured confounds due to the COVID-19 pandemic during which we conducted data collection.

Conclusion

In summary, the San Francisco VA's Integrative Health and Wellness Clinic is a promising model for interprofessional, team based CIH/Whole Health care with the potential to help participants achieve positive health outcomes. For participants in this study, the interdisciplinary, collaborative approach to integrative health care was impactful in large part because of the focus on helping patients work toward patient-centered goals and a whole person approach that integrated CIH modalities alongside convsentional care.

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