HHS Public Access

Author manuscript

Am J Geriatr Psychiatry. Author manuscript; available in PMC 2018 November 21.

Published in final edited form as:

Am J Geriatr Psychiatry. 2018 February ; 26(2): 250–256. doi:10.1016/j.jagp.2017.06.020.

¡HOLA, Amigos! Toward Preventing Anxiety and Depression in Older Latinos

Daniel E. Jimenez, Ph.D., **Shariful Syed, M.D.**, **Doris Perdomo-Johnson, L.M.F.T.**, and **Joseph F. Signorile, Ph.D.**

Department of Psychiatry and Behavioral Sciences (DEJ, SS, DP-J); Center on Aging (DEJ, DP-J, JFS), University of Miami Miller School of Medicine, Miami, FL; and the Department of Kinesiology and Sport Sciences (JFS), University of Miami, Miami, FL.

Abstract

Given the prevalence and morbidity of depression and anxiety in later life, the inadequacies of current treatment approaches for averting years living with disability, the disparities in access to the mental healthcare delivery system, and the workforce shortages to meet the mental health needs of older Latinos, development and testing of innovative strategies to prevent depression and anxiety are of great public health significance and have the potential to change practice.Although impediments to good depression and anxiety outcomes exist for all older adults, they are even more pronounced for older Latinos, who tend to have fewer socioeconomic resources.These factors underscore the need for prevention-based interventions that are effective, scalable, relevant, respectful, and specific to this population.The Happy Older Latinos are Active (HOLA) program is a community health worker–led, multicomponent, health promotion intervention.The diverse needs and circumstances of older Latinos (highly sedentary, culture-specific health beliefs, service disparities) were incorporated into the design of HOLA to reduce risk factors and improve health-related outcomes associated with common mental disorders in this group.The authors describe HOLA (highlighted in this case example) and why health promotion interventions like HOLA may hold promise as effective, practical, and nonstigmatizing interventions for preventing common mental disorders in older Latinos who are at risk for developing these disorders.

Keywords

Health promotion; anxiety; depression; prevention; Latinos; community health worker

INTRODUCTION

Latinos are the largest and fastest growing segment of the older adult population.[1] High prevalence of common mental disorders (depression and anxiety) combined with mental health service use disparities attest to the greater illness burden of common mental disorders experienced by older Latinos.[2,3] Although impediments to good depression and anxiety

Send correspondence and reprint requests to Dr. Daniel E. Jimenez, Department of Psychiatry and Behavioral Sciences, University of Miami Miller School of Medicine, 1695 NW 9th Avenue, Suite 3208, Miami, FL 33136. dej18@miami.edu.

The authors declare that they have no conflict of interest.

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

outcomes theoretically exist for all older adults, they are even more pronounced for older Latinos, who tend to have fewer socioeconomic resources.[4] In addition, older Latinos are more sedentary and are disproportionately affected by diabetes and obesity compared with their non-Latino white counterparts.[5,6] Cultural beliefs about the causes of mental illness and stigma associated with seeking help for these disorders may further contribute to Latinos' limited access and low utilization of mental healthcare.[7,8] These factors underscore the need for prevention-based interventions that are relevant, respectful, and specific to this population.

Prevention of common mental disorders in later life may be most efficiently accomplished by targeting older adults who have subsyndromal symptoms, experience functional limitations, have a small social network, have a lower educational level, or suffer from two or more chronic diseases.[9] According to the Institute of Medicine, this prevention approach is demonstrably efficient because it targets individuals at the highest risk of developing common mental disorders, would have the greatest impact in protecting older adults from the full clinical disorder, and would prevent the physical and emotional burden associated with common mental disorders. Although the overall goal of preventive interventions research is to reduce the incidence of the disorder, the short-term goal is to either reduce or to modify predictive or causal risk factors.[9] The optimal intervention is one that both alleviates depressive and anxiety symptoms and prevents the downstream burden of depression and anxiety.[9]

Effective approaches to this challenge are likely to involve using nontraditional means (i.e., community health workers [CHWs], health promotion, etc.) that are acceptable and scalable. The saliency of chronic physical illness in many participants' conceptualizations of mental illness suggests that health promotion interventions—defined as behavioral interventions that use counseling strategies to equip participants with the necessary knowledge and skills to modify and sustain a healthy diet, increased physical activity, or healthy weight—are well aligned with their perceived needs and may provide a tangible approach to address them. Health promotion interventions are behaviorally activating, reduce risk factors, and may be more desirable for reasons of safety and patient preference.[10–13]

"CAMINANDO Y SOCIALIZANDO:" HOW AN 80-YEAR-OLD LATINA WAS ABLE TO PREVENT ANXIETY AND DEPRESSION

"Mrs. S" is an 80-year-old, married Cuban woman who immigrated to the United States in 1970. She was recruited through a community center run by the Miami-Dade County Parks and Recreation Department. She had been experiencing elevated symptoms of depression and anxiety but had never been diagnosed with major depressive disorder or generalized anxiety disorder. She had a score of 13 on the Patient Health Questionnaire (PHQ-9) and a 16 on the Beck Anxiety Inventory (BAI) at baseline. Mrs. S agreed to enroll in the study, which compared the Happy Older Latinos are Active (HOLA) health promotion intervention to a *fotonovela*, a booklet that uses posed photographs and simple text bubbles to portray soap opera stories that convey educational messages. Mrs. S was randomly assigned to the HOLA condition.

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

Before enrolling in the study, CHW, who recruited Mrs. S., stated that Mrs. S. was shy and withdrawn from the other seniors at the center. During the baseline interview Mrs. S. said that she did not drive and depended on her husband to take her everywhere she needed to go. As a result, she would often leave the center earlier than she would have liked or would not engage in certain social activities if her husband did not want to participate. She stated that she was too meek to communicate her needs assertively to her husband or to go to any social gathering by herself.

HOLA begins with a physical and social activation session. Mrs. S. met individually with the CHW for 30 minutes to orient her to the structure and goals of the intervention and to problem solve potential obstacles that could potentially interfere with meeting the demands of the intervention. After this initial physical and social activation session, Mrs. S. joined a group of four other participants for a moderately intense group walk, led by a CHW for 45 minutes, three times a week, for 16 weeks.

Mrs. S completed the study, and at her 2-week follow-up evaluation her initial measure were repeated. Her PHQ-9 score at the follow-up interview was 1 and BAI score 9. She reported to the research assistant conducting the follow-up interview, who was blind to group assignment, that she felt more self-confident. She had been communicating her needs more assertively with her husband and was much more socially engaged. Her self-report aligned with what the CHW had observed. The CHW had noticed a change in Mrs. S's demeanor. On two separate occasions the CHW had witnessed Mrs. S talking with her husband. Before joining HOLA the conversation would have ended with Mrs. S getting into the car and leaving. However, these two instances ended with Mrs. S's husband waiting for Mrs. S and leaving when she wanted. The CHW also stated that she has seen Mrs. S much more engaged in the various activities at the community center than she had been before her participation in HOLA.

OUR RANDOMIZED PREVENTION TRIAL

The study has been described in detail elsewhere.[14] Briefly, the primary objective was to evaluate the feasibility and potential effectiveness of HOLA compared with an enhanced psychoeducation condition with respect to depression and anxiety prevention and depression and anxiety severity. Sixty older (aged 60+) Latino participants with minor or subthreshold depression or anxiety were randomized to the HOLA intervention (N = 30) or enhanced psychoeducation (N = 30). The participant in the vignette, Mrs. S, was an older Latina who presented with elevated symptoms of distress (depression and anxiety symptoms) and was assigned to the HOLA condition.

Psychiatric Assessment

We screened individuals age 60 and older and required a score 5 on the PHQ-9[15] or the seven-item Generalized Anxiety Disorder scale.[16] We administered the Mini-International Neuropsychiatric Interview[17] to rule out current major depressive disorder, generalized anxiety disorder, and alcohol or other substance use disorder within the past 12 months; a history of bipolar disorder or a psychotic disorder; and suicidality. Participants had to have a score 24, with Mungas correction, on the Mini-Mental State Exam[18] to exclude probable

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

dementia. The 10-m walk test was used to evaluate walking ability.[19] Finally, participants had to receive medical clearance from their primary care physicians.

Intervention

HOLA is a multicomponent, health promotion intervention designed to use physical activity and social engagement to prevent depression and anxiety in at-risk older Latinos. A description of the various components can be found in Table 1.

RESULTS

Although Mrs. S did not meet criteria for major depressive disorder or generalized anxiety disorder at baseline, her PHQ-9[15] score of 13 and BAI[20] score of 16 indicated she was experiencing a moderate amount of distress from her depression and anxiety symptoms. Taken together, Mrs. S was at high risk for developing a common mental disorder. Through her participation in HOLA, Mrs. S's depression and anxiety symptom severity improved. At the follow-up interview Mrs. S reported a score of 1 on the PHQ-9[15] and 9 on the BAI,[20] indicating low levels of distress. At the 6 month follow-up her PHQ-9[15] score was 1 and BAI[20] was 8, indicating that her risks for developing a common mental disorder were significantly reduced.

During the follow-up interview Mrs. S was asked to provide feedback regarding the program. First, she stated that the CHW and the group format were essential: "The support from the teacher [the CHW] and the interacting with others is what kept me going. If I was having a bad day or week, I knew that I could come to the group and tell them what was going on and get their support. Other times, I could just listen to others and offer my advice from my own experience." Second, she really liked the focus on health promotion, recognized that physical and mental health were linked, and experienced an increase in her self-efficacy: "I noticed that when I don't feel well physically, then my mind is not right, but in this program, we walked, we sweat, and it made me feel good. It made me feel like I had accomplished something."

Mrs. S attended 39 of 48 group walking sessions(81.3%), and her results are consistent with those seen in the trial. Results indicate that HOLA is a feasible and acceptable health promotion intervention. The pilot study was not powered to test a hypothesis, but the data we collected illustrate the potential effectiveness of HOLA in reducing risk for depression and anxiety among older Latinos.

HEALTH PROMOTION IN THE PREVENTION OF COMMON MENTAL DISORDERS

Although antidepressant medications are the most widely used modality for treating prevalent cases of major depression and anxiety, their use in subthreshold depression and anxiety may be ill-advised because of a lack of evidence for efficacy in mild cases and adverse effects in older adults.[21] Growing evidence suggests that health promotion interventions can lead to improved mental and physical health outcomes.[10–13] To maximize the effectiveness of health promotion strategies, the intervention must be relevant, respectful,

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

and specific to this population.[11] Given that older Latinos have low rates of mental health service use,[3] experience high stigma,[7] and have high rates of comorbidities,[5,6] health promotion interventions may be a culturally acceptable alternative that could potentially impact mental illness prevention.

Studies have consistently shown that increased physical activity effectively reduces symptoms of depression and anxiety.[22–26] In addition to reducing risk factors, regular engagement in physical activity is associated with improved health-related outcomes such as positive affect, health-related quality of life, and physical functioning.[22–25] Similarly, increasing pleasant events has been shown to be an effective intervention for common mental disorders in late life and improving psychosocial outcomes, such as social engagement and self-efficacy, which have been shown to be important factors in preventing late-life depression and anxiety.[26,27] Thus, there may be a synergy between increased physical activity and pleasant events. In this context, HOLA seems particularly promising because it combines these two strategies to reduce vulnerability factors and enhance protective factors associated with late-life depression and anxiety. HOLA may serve as a means of allowing individuals to increase a feeling of self-efficacy that can contribute to sustainable wellness in older Latinos such as Mrs. S because it is relevant, respectful, and specific to this population.

UNDERLYING MECHANISMS OF THE POSSIBLE PROTECTIVE EFFECTS OF HOLA

HOLA targeted known risk factors that are salient within the Latino community, social support and physical activity, which may help to explain why HOLA might have a protective effect against common mental disorders. Lack of perceived social support is associated with increased risk of onset of depressive disorders in late life.[28–30] This matches the cultural beliefs of older Latinos concerning the causes of mental illness. In a study by Jimenez et al.,[8] older Latinos tended to believe that mental illness is caused by the loss of family and friends, often as the result of migration. The effect of the scattering of family members on family structure and relationships is believed to be traumatic and can lead to poor health.[8] Social support was a recurring theme with Mrs. S, indicating the potential role of perceived social support as a mediating variable in the relationship between HOLA and risk for common mental disorders in older Latino adults.

Lower levels of physical activity have been associated with higher levels of depressive and anxiety symptoms fairly consistently across studies.[31,32] Older Latinos report the least amount of physical activity of any racial/ethnic group.[33] Although a number of factors serve as antecedents to physical activity noncompliance in the Latino community, issues relating to mental health contribute to this disparity.[34] The emphasis on preventing mental health problems through increased physical activity could appeal to older Latinos as a culturally acceptable and nonstigmatizing alternative to traditional mental health services. Results of a study examining the perceived benefits of engaging in a health promotion intervention from the viewpoint of Latinos with a mental illness showed that Latinos believed that engaging in health promotion would benefit the mind and body. Participants believed that a healthy

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

lifestyle was an effective way to manage their mental illness. They reported a decrease in the severity of their mental illness symptoms as a result of exercising routinely. They stated how exercising regularly had improved mood, anhedonia, and lack of motivation. Participants believed that engaging in regular physical activity was an effective method to increase self-esteem and reduce stress.[35]

TREATMENT CONSIDERATIONS

Despite the need, older Latinos are not seeking mental health services at the same rate as their non-Latino white counterparts.[3] Furthermore, even when older Latinos seek treatment, they are less likely to receive adequate mental healthcare and tend to drop out of treatment two to three times more frequently than non-Latino whites.[3,36] Although structural inequalities such as income, level of education, language, and insurance status contribute to differential access to and utilization of mental healthcare services among older Latinos, disparities are unlikely to be ameliorated without equal attention to how this group engages with and responds to mental health problems and treatment.

Many older Latinos view the use of traditional mental health services as highly stigmatizing.[7] In addition, available mental health treatments may not match the preferences, values, and beliefs of older Latinos, which can lead to the decision to not access mental health treatment.[7,8] In a study by Carpenter-Song et al.,[37] Latinos with mental illness resented diagnostic labels that carry the risk of social rejection. In contrast, Latinos who conceptualized mental illness as a problem with nerves or as a sickness that one has, much like a physical ailment, experienced less stigma.[37] This helps explain why many Latinos tend to express psychological distress as somatic complaints (e.g., heaviness in the chest, dizziness, drowning, etc.), and why they are skeptical of the utility of traditional forms of mental health treatment.[37,38] Thus, it is necessary to develop alternative approaches that use a culturally sensitive, nonstigmatizing approach to improve the physical and mental health of this population. HOLA did not raise the issues of safety, stigma, and financial burden associated with long-term psychotherapy or antidepressant pharmacotherapy. As a result, participant burden was low and compliance was high.

The number of geriatric mental health specialists is inadequate to meet the current and future needs of Latino older adults.[39] One promising approach is the use of CHWs to deliver simple, scalable interventions. CHWs are lay community members who work almost exclusively in community settings and effectively connect consumers to providers to promote health and prevent diseases among groups that have traditionally lacked access to adequate care.[40] They have long been accepted as important conduits of health information, particularly in Latin America, and as part of health-promotion efforts with diverse populations. CHWs are assumed to be effective because they are part of the communities in which they work—ethnically, socioeconomically, and experientially. They possess an intimate understanding of community social networks, strengths, and health needs; communicate in a similar language; and recognize and incorporate culture to promote health and health outcomes.[40] The use of CHWs has emerged as a strategy to reduce or eliminate health disparities and is an important means of task shifting to enable more efficient utilization of scarce mental health resources.[40]

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

The CHW providing the intervention completed 30 hours of training: 4 hours in each of the following five domains—communication and education, foundations of health, advocacy, professional responsibility, and resources—and 10 hours of basic research methods, including training on human participants research. An additional 4 hours was spent in training to deliver HOLA.

CONCLUSIONS

Common mental disorders in late life are prevalent, have an unfavorable prognosis, and are associated with high rates of disability, mortality, and healthcare utilization.[2,41–43] Their treatment is only partially satisfactory, leaving 50% of patients better but not well.[44] Therefore, preventing depression and anxiety in later life would decrease both suffering and the morbidity and mortality associated with these disorders. This is particularly important for older Latinos in whom disparities in mental healthcare services and outcomes are pronounced.[2–4] Whether a health promotion intervention could prevent incident and recurrent episodes of common mental disorders and the downstream consequences in at-risk older Latinos is not clear. However, the case can be made that health promotion interventions should at least be considered a culturally sensitive, nonstigmatizing approach. Mrs. S's case highlights the significant impact such an intervention can have in lowering depression and anxiety vulnerability when it is relevant, respectful, and specific to the needs of the older Latino population. If effective in reducing risk factors for common mental disorders, HOLA can be explicitly linked to preventing common mental disorders in late life and rapidly disseminated as an indicated prevention intervention throughout the country at low cost. In the context of reductions in funding available for preventive health services, particularly within mental health, this study may exemplify the use of health promotion with minimal use of resources.

Acknowledgments

The authors acknowledge Drs. Stephen Bartels, Margarita Alegría, Philip Harvey, and Charles F. Reynolds III, M.D. for their mentorship and sage advice, which were helpful in the preparation of this article.

This research was supported by grant K23 MH098025 from the National Institute of Mental Health.

References

1. Administration on Aging: A profile of older Americans: 2012 Available at: https://www.acl.gov/sites/default/files/Aging%20and%20Disability%20in%20America/2012profile.pdf. Accessed November 18, 2016.
2. Jimenez DE, Alegría M, Chen C-N, et al.: Prevalence of psychiatric illness among ethnic minority older adults.J Am Geriatr Soc 2010; 58:256–264 [PubMed: 20374401]
3. Jimenez DE, Cook BL, Bartels SJ, et al.: Disparities in mental health service use among ethnic minority adults. J Am Geriatr Soc 2013; 61:18–25 [PubMed: 23252464]
4. Cohen A, Houck PR, Szanto K, et al.: Social inequalities in response to antidepressant treatment in older adults. Arch Gen Psychiatry 2006; 63:50–56 [PubMed: 16389196]
5. Black SA, Ray LA, Markides KS: The prevalence and health burden of self-reported diabetes in older Mexican Americans: findings from the Hispanic Established Populations for Epidemiologic Studies of the Elderly. Am J Public Health 1999; 89:546–551 [PubMed: 10191799]

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

6. Ostir GV, Markides KS, Freeman DH, et al.: Obesity and health conditions in elderly Mexican Americans: the Hispanic EPESE. Established Population for Epidemiologic Studies of the Elderly. Ethn Dis 2000; 10:31–38 [PubMed: 10764128]
7. Jimenez DE, Bartels SJ, Cárdenas V, et al.: Stigmatizing attitudes toward mental illness among racial/ethnic older adults in primary care. Int J Geriatr Psychiatry 2012; 28:1061–1068
8. Jimenez DE, Bartels SJ, Cardenas V, et al.: Cultural beliefs and treatment preferences of ethnically diverse older adult consumers in primary care. Am J Geriatr Psychiatry 2012; 20:533–542 [PubMed: 21992942]
9. Institute of Medicine: Crossing the Quality Chasm: A New Health System for the 21st Century.Washington, DC: New Academy Press, 2001
10. Reynolds CF, Thomas SB, Morse J, et al.: Treatment in psychiatry: early intervention to preempt major depressive episodes in at-risk older Blacks and Whites. Psychiatr Serv 2014; 65:765–773 [PubMed: 24632760]
11. Stahl ST, Albert SM, Dew MA, et al.: Coaching in healthy dietary practices in at-risk older adults: a case of indicated depression prevention. Am J Psychiatry 2014; 171:499–505 [PubMed: 24788282]
12. Jimenez DE, Begley A, Bartels SJ, et al.: Improving health-related quality of life in older African American and non-Latino White patients. Am J Geriatr Psychiatry 2015; 23:548–558 [PubMed: 25171889]
13. Martinsen EW: Physical activity in the prevention and treatment of anxiety and depression.Nord J Psychiatry 2008;62(suppl 47):25–29
14. Jimenez D, Reynolds CF, 3rd, Alegría M, et al.: The Happy Older Latinos are Active (HOLA) health promotion and prevention study: study protocol for a pilot randomized controlled trial. Trials 2015; 16:579–587 [PubMed: 26683695]
15. Kroenke K, Spitzer RL, Williams JB: The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med 2001; 16:606–613 [PubMed: 11556941]
16. Spitzer RL, Kroenke K, Williams JB, et al.: A brief measure for assessing generalized anxiety disorder: the GAD-7. Arch Intern Med 2006; 166:1092–1097 [PubMed: 16717171]
17. Sheehan DV, Lecrubier Y, Harnett-Sheehan K, et al.: The Mini International Neuropsychiatric Interview (M.I.N.I.):the development and validation of a structured diagnostic psychiatric interview. J Clin Psychiatry 1998; 59(suppl 20):22–33
18. Mungas D, Marshall SC, Weldon M, et al.: Age and education correction of Mini-Mental State Examination for English and Spanish-speaking elderly. Neurology 1996; 46:700–706 [PubMed: 8618670]
19. Bohannon RW: Comfortable and maximum walking speed of adults aged 20–79 years: reference values and determinants. Age Ageing 1997; 26:15–19
20. Beck AT, Epstein N, Brown G, et al.: An inventory for measuring clinical anxiety: psychometric properties. J Consult Clin Psychol 1988; 56:893–897 [PubMed: 3204199]
21. Fournier JC, DeRubeis RJ, Hollon SD, et al.: Antidepressant drug effects and depression severity: a patient-level meta-analysis. JAMA 2010; 303:47–53 [PubMed: 20051569]
22. Ströhle A: Physical activity, exercise, depression and anxiety disorders. J Neural Transm 2009; 116:777–784 [PubMed: 18726137]
23. Blake H, Mo P, Malik S, et al.: How effective are physical activity interventions for alleviating depressive symptoms in older people? A systematic review. Clin Rehabil 2008; 23:873–887
24. Barbour KA, Blumenthal JA: Exercise training and depression in older adults. Neurobiol Aging 2005; 26(suppl 1):119–123 [PubMed: 16223547]
25. Blumenthal JA, Babyak MA, Doraiswamy PM, et al.: Exercise and pharmacotherapy in the treatment of major depressive disorder. Psychosom Med 2007; 69:587–596 [PubMed: 17846259]
26. Jacobson N, Martell C, Dimidjian S: Behavioral activation treatment for depression: returning to contextual roots. Clin Psychol Sci Pract 2001; 8:255–270
27. Warner LM, Ziegelmann JP, Schüz B, et al.: Synergistic effect of social support and self-efficacy on physical exercise in older adults. J Aging Phys Act 2011; 19:249–261 [PubMed: 21727305]

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

28. Fuller-Iglesias HR: Social ties and psychological well-being in late life:the mediating role of relationship satisfaction. Aging Ment Health 2015; 19:1103–1112 [PubMed: 25621882]
29. Houtjes W, Deeg D, van de Ven PM, et al.: Is the naturalistic course of depression in older people related to received support over time? Results from a longitudinal population-based study. Int J Geriatr Psychiatry 2017; 32:657–663 [PubMed: 27198491]
30. Steffens DC, Pieper CF, Bosworth HB, et al.: Biological and social predictors of long-term geriatric depression outcome. Int Psychogeriatr 2005; 17:41–56 [PubMed: 15948303]
31. Perrino T, Mason CA, Brown SC, et al.: The relationship between depressive symptoms and walking among Hispanic older adults: a longitudinal, cross-lagged panel analysis. Aging Ment Health 2010; 14:211–219 [PubMed: 20336553]
32. Dunn AL, Trivedi MH, O'Neal HA: Physical activity dose–response effects on outcomes of depression and anxiety. Med Sci Sports Exerc 2001; 33:S587–S597 [PubMed: 11427783]
33. Cromwell SL, Berg JA: Lifelong physical activity patterns of sedentary Mexican American women. Geriatr Nurs 2006; 27:209–213 [PubMed: 16948201]
34. Hernandez R, Prohaska TR, Wang PC, et al.: The longitudinal relationship between depression and walking behavior in older Latinos: the "¡Caminemos!" study. J Aging Health 2013; 25:319–341 [PubMed: 23264440]
35. Jimenez DE, Burrows K, Aschbrenner K, et al.: Health behavior change benefits: perspectives of Latinos with serious mental illness. Transcult Psychiatry 2016; 53:313–329 [PubMed: 26873582]
36. Blanco C, Patel SR, Liu L, et al.: National trends in ethnic disparities in mental health care. Med Care 2007; 45:1012–1019 [PubMed: 18049340]
37. Carpenter-Song E, Chu E, Drake RE, et al.: Ethno-cultural variations in the experience and meaning of mental illness and treatment: implications for access and utilization. Transcult Psychiatry 2010; 47:224–251 [PubMed: 20603387]
38. Lewis-Fernández R, Das AK, Alfonso C, et al.: Depression in US Hispanics: diagnostic and management considerations in family practice. J Am Board Fam Pract 2005; 18:282–296 [PubMed: 15994474]
39. Bartels SJ, Naslund JA: The underside of the silver tsunami—older adults and mental health care. N Engl J Med 2013; 368:493–496 [PubMed: 23343039]
40. Waitzkin H, Getrich C, Heying S, et al.: Promotoras as mental health practitioners in primary care: a multi-method study of an intervention to address contextual sources of depression. J Commun Health 2011; 36:316–331
41. Heun R, Papassotiropoulos A, Ptok U:Subthreshold depressive and anxiety disorders in the elderly. Eur Psychiatry 2000; 15:173–182 [PubMed: 10881214]
42. Judd LL, Schettler PJ, Akiskal HS: The prevalence, clinical relevance, and public health significance of subthreshold depressions. Psychiatr Clin North Am 2002; 25:685–698 [PubMed: 12462855]
43. Porensky EK, Dew MA, Karp JF, et al.: The burden of late-life generalized anxiety disorder:effects on disability, health-related quality of life, and healthcare utilization. Am J Geriatr Psychiatry 2009; 17:473–482 [PubMed: 19472438]
44. Bruce ML, Ten Have TR, Reynolds CF, et al.: Reducing suicidal ideation and depressive symptoms in depressed older primary care patients: a randomized controlled trial. JAMA 2004; 291:1081–1090 [PubMed: 14996777]

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

TABLE 1.

HOLA Intervention Description

Component	Description	Rationale	Cultural Relevance
Social and physical activation sessions	Participant meets individually with a CHW; sessions last 30 minutes; sessions occur before starting group walk and again at week 8 (midpoint)	To (1) educate potential participants about the goals of the intervention, (2) motivate participants to engage in physical activity, (3) increase participants' social activities, (4) identify potential obstacles that may interfere with meeting the demands of the intervention, and (5) brainstorm ways to overcome these obstacles	Builds personal relationship between the participants and the CHW to motivate, model, and maintain health behavior change
Group walk	Moderately intense, group walk (5 participants), led by a CHW; 45 minutes in length (10 minutes of stretching and warmup,walk for 30 minutes, 5 minutes of cool down), three times a week, for 16 weeks; developed by an exercise physiologist (JFS)	Increased physical activity effectively reduces symptoms of depression and anxiety as well as physical functioning risk factors in older adults	Nonstigmatizing and culturally acceptable alternative to traditional mental health services
Pleasant events scheduling	Participants identified a pleasant event to be done with another person before the next meeting; occurred during the cool-down phase of each walking session	Increasing pleasant events has been shown to be an effective intervention for geriatric depression and increasing protective factors in preventing late-life depression and anxiety	Provided a means to generalize the intervention into participants' everyday lives, which is a vital lifestyle adaptation that will sustain the benefits of this intervention