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A Review of Community Health Worker Interventions for Latinx/o/a Individuals With Unhealthy Alcohol Use

Mariam Carson, MS, Alicia Fernandez, MD, and Marlene Martin, MD

Abstract: Unhealthy alcohol use (UAU) affects nearly 1 in 4 Latinx/o/a individuals in the United States (US). Compared with White individuals, Latinx/o/a individuals with UAU face increased morbidity, decreased access to addiction treatment, and higher rates of incarceration. Community health workers (CHWs), also known as *promotores*, provide culturally and linguistically informed services while augmenting social and health care interventions. Although there is extensive literature evaluating the role of CHW interventions for chronic conditions including hypertension and diabetes, less is known about CHW interventions for UAU in the US. To better understand how CHWs can address UAU in the Latinx/o/a community in the US, we performed a scoping review of the literature for CHW interventions for UAU in the Latinx/o/a population. We reviewed publications up to March 8, 2022, which described CHW interventions for UAU in Latinx/o/a individuals in the US and identified 6 publications that met inclusion criteria after full-text review. These publications included 3 randomized controlled trials, 2 follow-up feasibility and acceptability assessments within the randomized controlled trial intervention group, and a pre-post noncontrolled feasibility study. All interventions were brief, with low-intensity touchpoints between CHWs and patients. None included medications for alcohol use disorder. We found few publications related to CHW-delivered interventions for UAU within the Latinx/o/a population. Given the acceptance and success of CHW-delivered interventions other conditions, as well as the increasing use of CHWs in the US, we need to invest in research that examines the efficacy of the CHWs in UAU.

Key Words: community health workers, *promotores*, navigators, Latinx, Latino, Latina, Hispanic, unhealthy alcohol use, alcohol use

From the Department of Medicine, San Francisco General Hospital, University of California, San Francisco, San Francisco, CA.

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Send correspondence and reprint requests to Mariam Carson, MS, Department of Medicine, San Francisco General Hospital, University of California, San Francisco, Box 1364, 1001 Potrero Ave, Bldg 10, Ward 13, San Francisco, CA 94110. E-mail: mariam.carson@ucsf.edu.

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Unhealthy alcohol use (UAU), which encompasses at-risk drinking and alcohol use disorder (AUD), is prevalent in the Latinx/o/a population. Approximately 25% of Latinx/o/a individuals 12 years and older reported past-month binge drinking in 2020.¹ Within the Latinx/o/a community in the United States (US), immigrant men report about twice the rates of past month binge drinking than the national average for all US men (44%–58% compared with 23%).² Alcohol-related morbidity is also worse for Latinx/o/a individuals.³ The reasons for these disparate outcomes include decreased access to care, stigma, and lack of culturally and linguistically responsive services.⁴ Given alcohol's effects on health and worse outcomes for Latinx/o/a individuals, we need linguistic and culturally responsive, evidence-based interventions for Latino/a/x individuals with UAU in the US.

Community health workers (CHWs) are trained to provide and facilitate services including health care, social support, and employment opportunities to individuals.⁵ In the US, CHWs have helped reduce hospitalizations for chronic diseases (eg, diabetes) and improved hypertension and mental health outcomes.⁶ CHWs, also known as *promotores* in the Latino/a/x community, also facilitate culturally and linguistically informed services. For example, CHWs have improved diabetes management and childhood obesity—conditions that disproportionately affect the Latino/a/x community—through health coaching, motivational interviewing, patient advocacy, and case management.⁷

Whereas CHW models in the Latino/a/x community have been well studied in cancer, cardiovascular diseases, and diabetes, they have been less studied in UAU. To date, there is no literature review examining CHWs' role in UAU in the Latino/a/x population. Given the worse outcomes related to UAU among Latino/a/x individuals and the potential for linguistically and culturally responsive CHW interventions, we conducted a scoping review to understand the landscape of CHW interventions for UAU in Latino/a/x communities.

METHODS

We conducted a literature review using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) for Scoping Reviews and identified all articles that described CHW interventions for UAU in Latino/a/x through March 8, 2022.⁸ Our search also included alcohol and other substance use disorders (SUDs) among Latino/a/x populations to thoroughly

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TABLE 1. List of CHW Studies Included in Scoping Review

Author/Year	Study Type	Location	Population	Sex	No. Participants	Duration	Intervention	Evaluation	Measurement Tools Used	Alcohol Use at Baseline	Outcome
Moore et al. ⁹ (2016)	Randomized controlled trial	Los Angeles, CA	Latino/a day laborers	Male	29	8 wk	<ul style="list-style-type: none"> - Motivational interviewing - Personalized feedback about drinking habits - Referral to alcohol use treatment services 	<ul style="list-style-type: none"> - Survey conducted at baseline and at 6, 12, and 18 wk 	<ul style="list-style-type: none"> - AUDIT score - PHQ-8 - Surveys assessing social network size and self-rated health - SF-12 version 2 mental and physical health composite scores 	<ul style="list-style-type: none"> - Recruited participants reported consuming >4 drinks 2x per week or >14 drinks per week - Mean AUDIT score among recruited participants was 23.8 	<ul style="list-style-type: none"> - No statistically significant differences were observed at any of the time points when follow-up surveys administered - Both intervention and control groups demonstrated reduced drinking and lower AUDIT scores over time - At 6-wk follow-up, the difference between intervention and control groups showed large effect size ($d = 0.77$) - At 12 wk, effect size (ES) of $d = 0.41$ was demonstrated for drinks per week - At 18 wk, control group participants demonstrated drinking and AUDIT scores similar to scores in intervention group
Cherpitel et al. ¹⁰ (2016)	Randomized controlled trial	ED in El Paso County, TX	Mexican-origin young adults	Males and females	698	8 wk	<ul style="list-style-type: none"> - Personalized feedback about drinking habits - Motivational interviewing and discussion of pros and cons of drinking - Self-assessment of behavior to determine whether participants were prepared to change their drinking habits 	<ul style="list-style-type: none"> - Surveys conducted at baseline, 3-, and 12-mo follow-up 	<ul style="list-style-type: none"> - RAPS4 Rapid Alcohol Problems Screen (RAPS4) survey - Timeline follow back survey - SIPS +6 survey - Surveys assessing risk taking/impulsivity and sensation seeking 	<ul style="list-style-type: none"> - Met DSM-IV criteria for alcohol dependence (positive for any of RAPS4 questions) or positive for at-risk drinking (over the past 28 d, >15 drinks per week or >5 drinks per day for males, >8 drinks per week or >4 drinks per day for females) 	<ul style="list-style-type: none"> - Excluding RAPS4 score, intervention condition demonstrated significantly or marginally significantly lower values on all outcome variables (ie, at-risk drinking, drinking days per week, drinks per drinking day, maximum drinks in a day, and negative consequences of drinking)
Ornelas et al. ¹¹ (2019)	Randomized controlled trial	Seattle, WA	Latino immigrant men	Male	121	8 wk	<ul style="list-style-type: none"> - Personalized feedback about drinking habits - Motivational interviewing and discussion of pros and cons of drinking - Self-assessment of behavior to determine whether participants were prepared to change their drinking habits 	<ul style="list-style-type: none"> - Survey conducted at baseline, 2 wk, and 8 wk 	<ul style="list-style-type: none"> - AUDIT score 	<ul style="list-style-type: none"> - Positive for at-risk drinking or AUD by AUDIT; the mean AUDIT score among participants was 20.0 	<ul style="list-style-type: none"> - For number of drinks per drinking day between intervention and control groups, ES = 0.35 ($P = 0.067$), ES = 0.39 ($P = 0.055$), and ES = 0.67 ($P = 0.001$) at baseline, 2 wk, and 8 wk, respectively - For number of drinking days in past 14 d, ES = 0.31 ($P = 0.101$), ES = 0.27 ($P = 0.173$), and ES = 0.58 ($P = 0.005$) at baseline, 2 wk, and 8 wk, respectively

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Author(s)	Study Design	Location	Participant Characteristics	Sample Size	Duration	Intervention Details	Outcomes
Torres et al. ¹² (2020)	Participant satisfaction and acceptability evaluation nested within randomized control trial (only participants in intervention group sampled)	Seattle, WA	Latino immigrant men	73	6 mo	<ul style="list-style-type: none"> Survey conducted at baseline, 2 wk, and 8 wk Developed plan of action Connection to health and social services and community venues 	<ul style="list-style-type: none"> 89% of participants reported satisfaction with intervention Participants reported high satisfaction with use of promoters 89% of participants reported that information presented by promoters helped them think about their alcohol use In-depth interviews revealed participants perceived that the intervention helped them reduce drinking, however intervention did not improve drinking habits relative to control group Study relevance to participants' health facilitated participation in RCT Participants felt that promoters treated them respectfully Participants felt motivated to improve their lifestyle and their community Participants reported study location and time commitment were convenient Some participants reported competing obligations made 2- and 8-wk follow-up for parent study difficult, and that some survey questions from RCT were difficult to understand or repetitive
Torres et al. ¹³ (2020)	Community-based participatory research investigation	Seattle, WA	Latino immigrant men	25	NA	<ul style="list-style-type: none"> In-depth interviews 	<ul style="list-style-type: none"> Study relevance to participants' health facilitated participation in RCT Participants felt that promoters treated them respectfully Participants felt motivated to improve their lifestyle and their community Participants reported study location and time commitment were convenient Some participants reported competing obligations made 2- and 8-wk follow-up for parent study difficult, and that some survey questions from RCT were difficult to understand or repetitive
Documet et al. ¹⁴ (2019)	Pre-post, noncontrolled feasibility study	Allegheny County, PA	Latino immigrant men in an emerging Latinx/o/a community	89	NA	<ul style="list-style-type: none"> Prepost survey Behavioral Risk Factor Surveillance Survey PHQ-9 5-Point Likert scale assessing perceived social support Dichotomous survey assessing health care access 	<ul style="list-style-type: none"> 35% of participants reported binge drinking (consuming at least 5 drinks on one occasion) in the past month Proportion of participants with high social support increased from 49.5% to 64.5% (not statistically significant, $P = 0.06$) Pre-post binge drinking and depression did not change significantly ($P = 0.839$ and 0.210) Access to usual source of care, doctor visits, and dentist visits increased significantly among participants ($P = 0.004$, 0.001, and 0.020, respectively)

AUDIT, Alcohol Use Disorders Identification Test; DSM-IV indicates *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition); ED, emergency department; PHQ, Patient Health Questionnaire; RAPS4, Rapid Alcohol Problems Screen; SIPS, Short Inventory of Problems; SF-12, 12-Item Short Form Survey.

capture CHW studies involving UAU in Latino/a/x populations. We included US studies with Latino/a/x participants that contained CHW-delivered interventions focused on UAU and alcohol and SUDs. The search comprised key words for 3 main descriptors: 1, descriptors associated with CHWs; 2, descriptors associated with Latino/a/x identities; and 3, descriptors associated with UAU and alcohol and drug use disorders. Two study team members evaluated 32 article abstracts and determined that 16 (50%) met the inclusion/exclusion criteria after abstract review. Six articles met the inclusion criteria after the study team performed full-text review. Two study team members reviewed each publication for data abstraction. We resolved the few discrepancies identified between reviewers by group discussion and consensus. Data abstraction included first author, publication year, study type, substances intervention designed for, alcohol use at baseline, sociodemographic characteristics, study location, intervention, outcome, and outcome measures (see Appendix 1 <http://links.lww.com/JAM/A434>, for full methods).

RESULTS

Only 6 articles met the inclusion criteria after full-text review.^{9–14} Table 1 shows articles that met the inclusion criteria and detailed study data. None involved both alcohol and other SUDs. Three stemmed from a single study, 3 (50%) were randomized control trials (RCTs), and only 1 study included women. None provided participants AUD pharmacotherapy. Overall, CHW-delivered interventions were brief, had infrequent contact points, and had variable interventions for UAU. Although studies showed a trend toward decreased drinking, most alcohol-related outcomes lacked evidence of efficacy.

The duration and frequency of interventions ranged from a single 20-minute intervention¹⁰ to monthly encounters with CHWs for 6 months.¹⁴ The 3 RCTs had nonintensive CHW engagement and were 8 weeks in duration. CHWs primarily offered information for Alcoholics Anonymous and free clinic locations. Studies used different measures of alcohol severity, ranging from self-reported drinking patterns to the Alcohol Use Disorders Identification Test and Rapid Alcohol Problems Screen scores.

Participants across RCTs reacted positively to the CHW-led interventions. Moore et al.⁹ reported that 92% of participants in the intervention group were satisfied with the intervention, and Ornelas et al. reported that participants appreciated the in-person interactions.

In Torres et al.'s^{12,13} follow-up studies, nearly all participants reported that the CHWs were understanding, well-trained, and knowledgeable about alcohol use and had a Latino/a/x focus. This study measured participant satisfaction on a 5-point Likert scale and included questions related to satisfaction with the intervention content, setting, and relationship with the CHWs. Overall satisfaction ranged from 84% to 95%.^{12,13}

In Documet et al.'s¹⁴ pre-post study, participants' access to care increased from 24% to 43%, and social support increased from 49.5% to 64.5%. However, binge drinking did not change from baseline to the 6-month follow-up ($P = 0.839$).¹⁴

DISCUSSION

Our review of CHW-delivered interventions for UAU in Latino/a/x populations revealed a limited body of literature with only 6 publications, and most focused on men. Given increasing rates, morbidity, and mortality of UAU, we need to understand whether CHW-driven interventions are effective for UAU.^{1–3} For Latino/a/x individuals, especially immigrants, this is compounded by worse UAU-related outcomes (eg, death, chronic disease, incarceration, treatment access).^{15–18}

The current nationwide shortage of the behavioral health workforce presents an opportunity to leverage the cultural and linguistic skill set of Latino/a/x CHWs as part of the addiction workforce, as has been done for other chronic illnesses.^{19,20} California recently added CHW-delivered services as a Medicaid benefit, pledging \$201 million by 2026 to 2027.²¹ In making CHW interventions reimbursable, there will be increased CHW presence and community access to health care services. However, CHW interventions for UAU must be evaluated to assess their efficacy.

Our review of the current limited evidence shows that, although participants exhibited increased reflection on their alcohol use and were satisfied with CHW interventions for UAU, most alcohol-related outcomes did not significantly improve. Studying more frequent, higher intensity interventions for a longer duration may show improved outcomes. Future CHW interventions also should combine education and linkage to health care for initiation of evidence-based treatment for AUD and include women. Studies could also include objective measures related to UAU including liver function tests, alcohol biomarkers, weight, diabetes control, and hypertension as well as categorization of at-risk drinking versus AUD.

CONCLUSIONS

While trending toward reduced alcohol use, currently, there is insufficient and limited evidence as to the type of CHW model that would improve UAU and health-related outcomes among Latino/a/x populations. Future studies should incorporate evidence-based addiction treatment, more frequent CHW touchpoints, and longer study periods to improve efficacy. This is critical given the need for linguistic and culturally informed services, evidence for CHWs in other chronic diseases, growing CHW workforce, and the increasing morbidity and mortality of AUD.

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