

Tobacco Knowledge, Attitudes, and Services Among Latino/a Community Health Workers

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Abstract

Background: Tobacco-related illnesses are among the leading preventable causes of death for Latinos/as in the United States. Latino/a groups are less likely to receive advice to quit from health professionals or use tobacco cessation strategies. The position of community health workers (CHWs) warrants further attention to address tobacco-related disparities in Latino/a communities. The objective of this study was to describe CHWs' roles to inform future smoking cessation training to ensure relevance and accessibility. **Methods:** A needs assessment survey, including a 10-item tobacco knowledge questionnaire, was conducted with 29 Latino/a CHWs serving Latino/a communities in a metropolitan area to assess their roles, tobacco related services, attitudes, and knowledge. **Results:** All CHWs were Spanish-speaking and mainly employed part time (55%) in community organizations (67%). They offered various services, primarily health education. Most of the CHWs (58.6%) assessed and discussed tobacco use, yet half (51.7%) reported low confidence in this area. Some CHWs (41%) expressed that their clients/patients would use evidence-based nicotine replacement therapies as a smoking cessation treatment if offered and identified "Financial Cost" (31%) as a deterrent of use. CHWs' score on a tobacco knowledge questionnaire indicated low knowledge in areas related to tobacco (4.03 out of 10; SD = 1.92). **Conclusions:** CHWs reported low tobacco related knowledge and confidence, and would benefit from tailored tobacco cessation training to decrease tobacco cessation disparities.

Keywords

tobacco cessation, smoking, community health, community health workers, Latino/a health

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Introduction

Tobacco use continues to be the leading reason for preventable sickness, disability, and death in the United States.¹ Even though smoking among Latinos/as in the United States remains below the national average, they face significant smoking cessation disparities.^{2–4} Brief interventions to address smoking have shown positive trends in reducing tobacco use, yet findings suggest that Latinos/as have less access to healthcare settings and receive less advice to quit from healthcare professionals.² Community Health Workers (CHWs) are known members of the community who focus on building positive community partnerships and cost-effective health interventions.^{5–7} These health professionals are key to addressing the smoking cessation disparities that Latinos/as face as they can provide culturally-relevant and accessible interventions. However, little is known about how CHWs address tobacco, and their knowledge of tobacco use and smoking cessation treatments.

Latinos/as have been a historically underserved group in the United States.⁸ It is of significant concern how Latinos/as face many barriers when accessing healthcare services and preventative health interventions.^{8,9} The literature suggests that Latino/a smokers have light and intermittent smoking patterns, consume fewer cigarettes per day, and smoke fewer days a month than non-Hispanic white smokers.^{2,10,11}

However, light and intermittent smoking rates still place individuals at higher risk of developing lung cancer¹² and

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other health adversities such as coronary heart diseases and strokes.¹³ Similarly, there are significant disparities in smoking cessation among Latinos/as. For instance, it has been thoroughly documented that Latinos/as are less likely to receive advice to quit smoking from a healthcare professional when compared to non-Hispanic whites.^{2,4} Additionally, Latinos/as find less success at tobacco cessation than non-Hispanic whites.⁴ Latinos/as are also less likely to use evidence-based tobacco cessation treatments, particularly nicotine replacement therapies (NRTs), compared to non-Hispanic whites.^{2,4} Therefore, the specific smoking behaviors and smoking cessation trends found in Latinos/as should be considered when designing smoking cessation interventions to reduce smoking cessation disparities.

The CHW model has been used nationally to address health behaviors across Latinos/as.^{5,7} In the Latino community, CHWs are usually referred to as *promotoras de salud* or *aliadas de la salud* (health promoters or allies of health). CHWs have a crucial role in bridging health disparities in Latinos/as and providing culturally-relevant health initiatives since many Latinos/as do not have access to traditional health care settings (e.g., hospitals).^{2,10} Previous CHW health interventions have been successful in addressing health disparities such as chronic diseases, heart diseases, and nutrition.^{5,7,14,15} Past programs have been developed to address tobacco use through training CHWs and lay health workers.^{16,17} Results from these interventions suggest that tobacco cessation training for CHWs increase tobacco cessation knowledge, self-efficacy, and proportion of brief intervention deliveries,¹⁷ yet these studies do not provide baseline knowledge and guidelines to adapt those training to specific circumstances across CHWs.

Understanding the current needs, knowledge, and roles of CHWs would provide insights to develop culturally-relevant and accessible training to assist them in bridging healthcare access to reduce disparities. The aims of the current study were to explore (1) the roles of Spanish-speaking CHWs and (2) tobacco-related services, attitudes, and knowledge of Spanish-speaking CHWs who served the Latino community in a metropolitan area. Our goal is to use these preliminary data to inform the development of a smoking cessation training specifically for CHWs.

Methods

A total of 40 Spanish-speaking CHWs were recruited through a health education series offered through a National Cancer Institute-designated comprehensive cancer center. Participants attended an education module that provided information on overall tobacco use and cessation, which was delivered in Spanish. The CHWs were invited to complete a 15- to 20-min online Qualtrics® survey before attending the educational module or at the beginning of the scheduled session. After providing informed consent,

CHWs completed a survey and received a gift card for their time. Additionally, participants had the chance to discuss issues they found interesting from the survey before finishing the educational modules. Eleven participants were excluded from further analyses because they did not complete the survey (i.e., participants opened the survey link but did not answer the questions), leaving a final sample of 29 CHWs. This study received approval from the Institutional Review Board at the University of Chicago before the start of the study (IRB21-1424).

A 50-question survey was translated to Spanish and adapted for a Latino/a sample based on a needs assessment survey in English previously developed for assessing needs in CHWs serving low socio-economic status communities.¹⁸ The survey was constructed to capture their knowledge, practices, training accessibility, and attitudes related to tobacco use and smoking cessation.¹⁸ Key stakeholders (ie, CHWs) contributed to the development and editing of this survey to accurately represent the needs of CHWs.¹⁸ Two native-Spanish-speaking graduate-level research trainees translated and back-translated the original needs assessment into the Spanish version of the measure. Two questions were added to the Spanish version inquiring about clients'/patients' probability of using NRTs and the reasons behind their use. Likewise, immigration was added as an option to describe the services provided by Latino/a CHWs, given how immigration has been reported as a significant stressor in Latino/a groups.¹⁹ Participants were asked to respond to statements about their experiences as CHWs either in multiple-choice questions, table response selections, true or false statements, and free-response options (ie, participants typed their responses). The survey was divided into the following sections: job characteristics, tobacco cessation practices, client characteristics, tobacco cessation practices and attitudes, a tobacco knowledge questionnaire, desired skills and training, and participant characteristics.

The 10-question tobacco knowledge questionnaire ($\alpha = .56$) was included to evaluate general knowledge about tobacco use in the U.S., nicotine dependence, and smoking cessation treatment. CHWs were instructed to select among the answer options for the correct choice in each question, and a higher score indicated more tobacco-related knowledge. This tobacco knowledge questionnaire has previously been used to assess CHWs' overall knowledge of tobacco and tobacco cessation practices.¹⁸

Quantitative data were analyzed using Statistical Analysis Software (SAS) version 9.4. Descriptive statistics were performed to describe the roles of CHWs and their beliefs and attitudes concerning tobacco, smoking, and tobacco cessation. Each question had 1 correct answer in the tobacco knowledge questionnaire, which accounted for 1 point. Two questions in the questionnaire prompted participants to select all the options that apply to the question.

Table 1. Community Health Workers' Job Characteristics and Tobacco Cessation Services.

Type of employment (n = 29)	Frequency	Percentage
Full-time	5	17.24
Part-time	16	55.17
Volunteer	8	27.59
Services provided (n = 29) ^a		
Health education	26	89.7
Support groups	14	48.3
Immigration	9	31
Healthcare access navigation	10	34.5
Domestic violence prevention	6	20.7
Community violence prevention	3	10.3
Housing	7	24.1
Insurance assistance	6	20.7
Other	3	10.3
Time spent with clients/patients (n = 28)		
Less than 15 min	13	46.43
Between 15 and 30 min	10	35.71
Between 31 and 45 min	1	3.57
More than 45 min	4	14.29
Likelihood of assessing/discussing tobacco use (n = 20)		
Not at all likely	3	10.34
Somewhat likely	6	20.69
Moderately likely	4	13.79
Extremely likely	7	24.14
Frequency of inquiring about tobacco/nicotine dependence throughout treatment (n = 28)		
Never	10	34.48
Less than half of visits or sessions	5	17.24
About half of visits or sessions	4	13.79
More than half visits or sessions	2	6.90
Every visit or session	2	6.90
Information not available	6	20.69

^aCommunity Health Workers (CHWs) could select more than 1 service and the frequencies were calculated on each option.

In these cases, participants would only receive a correct point if they could identify all the correct responses. The scores from each question were aggregated to calculate a mean score for each participant (e.g., 5/10), and the scores from all the CHWs were averaged to provide an overall score for the group.

Results

The average age of the final sample (N=29) was 45.9 (SD=8.35), ranging from 26 to 63 years old. "High School" was the most selected completed educational attainment (37.9%) followed by "University Degree, Bachelor's or Equivalent" (20.7%), and "Elementary School or Partial High School" (13.8%). All of the CHWs self-identified as Hispanic or Latino/a and most of them (67%) reported

working within a "Community Organization" on a part-time basis (55%; see Table 1).

CHWs reported that they offer an array of services including health education, support groups, health care access navigation, and support with immigration services, among others. More than 3-quarters of the participants (79.3%) reported spending somewhere below 30 min in each encounter with their clients/patients.

When asked about their confidence levels to address tobacco/ nicotine use, 31% reported "Not at all confident," 20.7% "Somewhat Confident," 31% "Moderately Confident," and 6.9% "Extremely Confident." Overall, tobacco screening was low among CHWs with only a quarter of the participants (27.6%) indicating that they inquired about their clients'/ patients' tobacco use during their initial session, and about half of them (51.7%) either "Do not ask at all" or ask at "Less than half of the visits or sessions" throughout treatment. Even though CHWs indicated discussing tobacco use during their sessions, overall tobacco knowledge was low. The total scores from the participants ranged from 1 to 6 with an average score of 4.03 out of 10 (SD=1.92). Regarding their clients'/patients' tobacco treatment, CHWs indicated "Financial cost" (31%), "Lack of product knowledge" (27.6%), and a "Lack of personal character" (e.g., "I have to quit smoking on my own"; 31%) as the probable reasons why their clients'/ patients might not use NRTs.

The majority of the CHWs selected education on tobacco cessation treatments for clients/patients (79.3%), followed by local smoking cessation services (51.7%) and NRTs (51.7%) when asked about the type of training they would like to receive. CHWs also expressed a more considerable preference (86.2%) for a training within 30 min to 2 h. Likewise, most of them (48.3%) preferred the evening as a suitable time to receive future training, and the majority (69%) expressed that they would only attend free training.

Discussion

The CHW model has been used to promote specific health behaviors^{5,7} and could serve to bridge healthcare access among Latinos/as.^{6,16} As a result, there is growing interest in understanding the roles and responsibilities that CHWs hold in their positions to develop interventions to enhance or improve their skills. The overarching goal of the present work was to describe the roles of Spanish-speaking CHWs and understand the types of interactions they have with their clients/patients concerning tobacco use. Our results showed that CHWs' roles are highly dependent on the context that they are employed and that tobacco knowledge and confidence was low.

Previous findings have shown that tobacco cessation training among CHWs and lay health workers are effective at increasing tobacco cessation-related knowledge and confidence.¹⁷ Results from this study provide valuable information on how to specifically structure these training to address

the needs of the CHWs. For example, even though the role of a CHW is being professionalized throughout health care settings,²⁰ a majority of CHWs from this study were employed part time. Additionally, the Spanish-speaking CHWs highlighted that they see their clients/patients in under 30 min for each session which should be taken into consideration as some tobacco cessation trainings assume that trainees will have more extended, structured interactions with their clients/patients.²¹ Likewise, tobacco use is only one of the subjects that CHWs could potentially discuss during their sessions. The CHWs reported that they provide various services to their population, which highlights the need for future tobacco cessation training to consider time constraints when delivering interventions. For these reasons, future training development should consider the specific type of interactions CHWs have with their clients/patients to accurately accommodate the needs of Latino/a CHWs.

The literature emphasizes that one of the significant roles of CHWs is to promote health literacy and education.²² The results from this study support these findings but also expand on the areas in which CHWs assist their clients/patients. For example, in this sample, many CHWs reported helping with topics related to immigration which might seem beyond the scope of the role in a traditional healthcare model. Nevertheless, this finding supports what other researchers have also found: the roles and responsibilities of CHWs depend on the organizations that employ them.²³ Similarly, immigration is a significant stressor for many Latinos/as, affecting their mental and physical well-being.¹⁹ Therefore, it seems pertinent that CHWs in this sample reported immigration services as a significant part of their role since CHWs are key in addressing social determinants of health that affect underserved and minoritized communities.⁶ These findings emphasize the importance of considering immigration and its repercussions on clients/patients for the roles of a Latino/a CHW in a metropolitan area.

Previous findings by Tan et al¹⁸ highlighted that CHWs who discuss tobacco use during sessions with their clients/patients report low levels of confidence in addressing this issue. Findings from this study portray a similar trend in a Latino/a sample of CHWs. Even though many Spanish-speaking CHWs reported a moderate to high likelihood of discussing tobacco during their sessions, only one of them addressed the problem directly. In addition, most of them reported low confidence levels in addressing this issue. These findings also support the idea that CHWs would benefit from a smoking cessation training, given how many of them discuss this subject with their clients/patients, yet consider themselves unprepared to address it.

This study should be interpreted in light of its limitations. The educational modules and data collection took place virtually over Zoom. There are some concerns that online data collection efforts might be at a disadvantage over those in person.²⁴ In particular, carelessness and reduced responses

in online data collection could have affected the frequency of responses in this study. In addition, this study involved a 50-question survey, which could deter some participants' engagement and motivation to complete it as they might feel it is too long. Future needs assessment could explore in-person data collection events to maintain participants' engagement with the survey. Similarly, many participants completed the initial informed consent but did not respond to the remainder of the questionnaire, resulting in a small sample for analysis. Finally, CHWs were recruited in one major city and the survey was administered only in Spanish, so results may not be generalizable to CHWs in other geographic areas. Future research with larger sample sizes of CHWs should consider these concerns so that data collection accuracy can be improved and representative.

Conclusions

Across the United States Latinos/as disproportionately experience less access to traditional health settings,⁸ and therefore, less access to tobacco cessation services. Thus, CHWs could provide cost-effective, accessible, and culturally-relevant interventions to address health disparities.^{6,16,17,20} This work provides a baseline understanding of the smoking cessation needs, attitudes and knowledge of Latino/a CHWs in a metropolitan area. Results from this study highlight that future tobacco cessation training should consider the time constraints, other social services CHWs already provide, and unique contextual issues (eg, immigration). These considerations would, in turn, allow for the accurate development of smoking cessation interventions that CHWs could use with their clients/patients to attain lasting behavioral changes.

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Author Contributions

MT, ANW, and EV conceptualized the paper. EV, MT, DV, and LN organized recruitment and data collection. EV performed the administrative data analysis and first draft of the manuscript. MT, CH, and ANW provided revisions on the paper.

Availability of Data

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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