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Participant Satisfaction and Acceptability of a Culturally Adapted Brief Intervention to Reduce Unhealthy Alcohol Use Among Latino Immigrant Men

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Abstract

Latino immigrant men are at increased risk for unhealthy alcohol use, yet few interventions have been designed to meet their unique needs. The current study assessed participant satisfaction and acceptability of a culturally adapted brief intervention to reduce unhealthy alcohol use in this population. Adaptations to the brief intervention included delivering it in Spanish by *promotores* in a community setting. The mixed methods approach included surveys ($N = 73$) and in-depth interviews ($N = 20$) with participants in a pilot randomized controlled trial. The study drew on Sekhon's theoretical framework of acceptability to asses affective attitude, burden, and perceived effectiveness of the intervention, along with satisfaction with the content, setting, and *promotor*. Participants' survey responses indicated that they were highly satisfied with the content, setting, and delivery of the brief intervention. In interviews participants noted that the brief intervention helped them reflect on their drinking behaviors, that they perceived *promotores* to be a trusted source of health information, and that they liked receiving personalized feedback via tablets. Some participants found the feedback did not match their own perceptions of their alcohol use and wanted clearer advice on how to reduce their drinking. Men felt they would benefit from more contact with *promotores*. These findings suggest that Latino immigrant men in this study were receptive to the culturally adapted brief intervention. Future interventions may be more effective if they include multiple contacts with *promotores* and more directive guidance on strategies to reduce drinking.

Keywords

Latino immigrant men, day laborers, brief intervention, cultural adaptation, satisfaction, acceptability

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Previous studies have found high rates of unhealthy alcohol use in Latino immigrant men, in part due to the unique stressors they face based on their gender, ethnicity, and immigration status (Ornelas et al., 2016; Worby & Organista, 2013). One approach to addressing these disparities has been to culturally adapt evidence-based interventions for reducing unhealthy alcohol use (Cooper et al., 2002). Previous studies have identified that brief interventions can be effective in reducing alcohol use among Latinos in clinical settings (Field & Caetano, 2010). Given that Latino immigrant men have limited access to health care, they are unlikely to receive brief interventions. This study aimed to assess participant satisfaction and acceptability of a culturally adapted brief intervention aimed at reducing unhealthy alcohol use among Latino immigrant men.

The cultural adaptation of this evidence-based intervention drew on Barrera and Castro's framework (Castro et al., 2004). The process included formative research with health and social service providers and Latino immigrant men (Castro et al., 2004). These findings highlighted the intersectional stressors Latino immigrant men face, in addition to their limited access to alcohol prevention and treatment programs (Ornelas, Allen, Vaughan, Williams, & Negi, 2015). Based on these findings, the brief intervention was modified in the following ways: (a) It was delivered by bilingual and bicultural *promotores* (community lay workers), in lieu of health-care providers, (b) it was provided in a community setting, as opposed to a primary care setting, and (c) it referred men to low-cost Spanish-speaking services if needed (Ornelas et al., 2015). The culturally adapted brief intervention consisted of a 30-min motivational interviewing counseling session that followed standard protocols for previously tested brief interventions, including personalized feedback on drinking behaviors, discussion motives and consequences of drinking, and making of a plan to change alcohol use (Whitlock et al., 2004). *Promotores* were also trained to encourage men to discuss factors contributing to their alcohol use, such as gender norms and expectations about being a provider and exposure to discrimination by immigration and law enforcement.

A pilot randomized trial (Vida PURA) was conducted to assess the efficacy of the culturally adapted brief intervention relative to the control condition (Ornelas et al., 2019). Although self-reported alcohol use decreased in both arms, there were no significant differences between the intervention and control group (Ornelas et al., 2019). Given these results, the current study sought to evaluate participant satisfaction and acceptability to help explain if participants perceived the intervention to be less useful than expected.

One key aspect to intervention effectiveness is the extent to which the intervention is considered acceptable and satisfactory to those receiving it. This study drew on the Theoretical Framework of Acceptability (TFA, v2) to assess participant satisfaction and acceptability of the culturally adapted brief intervention. The goal was to identify which elements of the intervention were preferred by participants as well as which were perceived to be the most helpful. The study sought to identify whether intervention components could be improved in future studies of brief interventions to address unhealthy alcohol use in this population.

Methods

Vida PURA Study Procedures

Participants in the Vida PURA study were recruited from a community-based organization serving Latino immigrants in Seattle, WA. The organization served as a day labor worker center, and therefore many Latino immigrant men came to the organization seeking employment each day. Persons were eligible who self-identified as Latino males, spoke Spanish, were born outside the United States (immigrant), and screened positive for unhealthy alcohol use (based on a score of 6 or higher on the Alcohol Use Disorders Identification Test [AUDIT]). Eligible participants completed a baseline survey (N = 121) as well as 2- and 8-week follow-up surveys with participant retention rates of 86% and 88%, respectively (Ornelas et al., 2019). All surveys were interviewer administered by a *promotor*. Following completion of the baseline survey, participants were randomized into either an intervention or control group and informed of their condition. Those in the intervention group were invited to meet with a different *promotor* for the brief intervention. Two- and 8-week follow-up surveys were administered by the same *promotor* who conducted the baseline survey (but different from the *promotor* who provided the brief intervention). Participant satisfaction measures were included on the 2-week follow-up survey administered after the brief intervention. This design helped reduce bias by separating intervention delivery from assessment. For this study, only survey data from men who received the intervention (N = 85) and completed 2-week follow-up surveys (N = 73; 86%) were included.

The culturally adapted brief intervention was delivered by *promotores* with the aid of a tablet (Microsoft Surface Pro). Participants were given personalized feedback on their drinking behaviors that was generated based on survey results and presented on the tablets. Participants were then shown their reported drinking motivations and consequences to help generate a discussion about pros and cons of their drinking. Finally, the participants were asked to assess their readiness to change their drinking behavior.

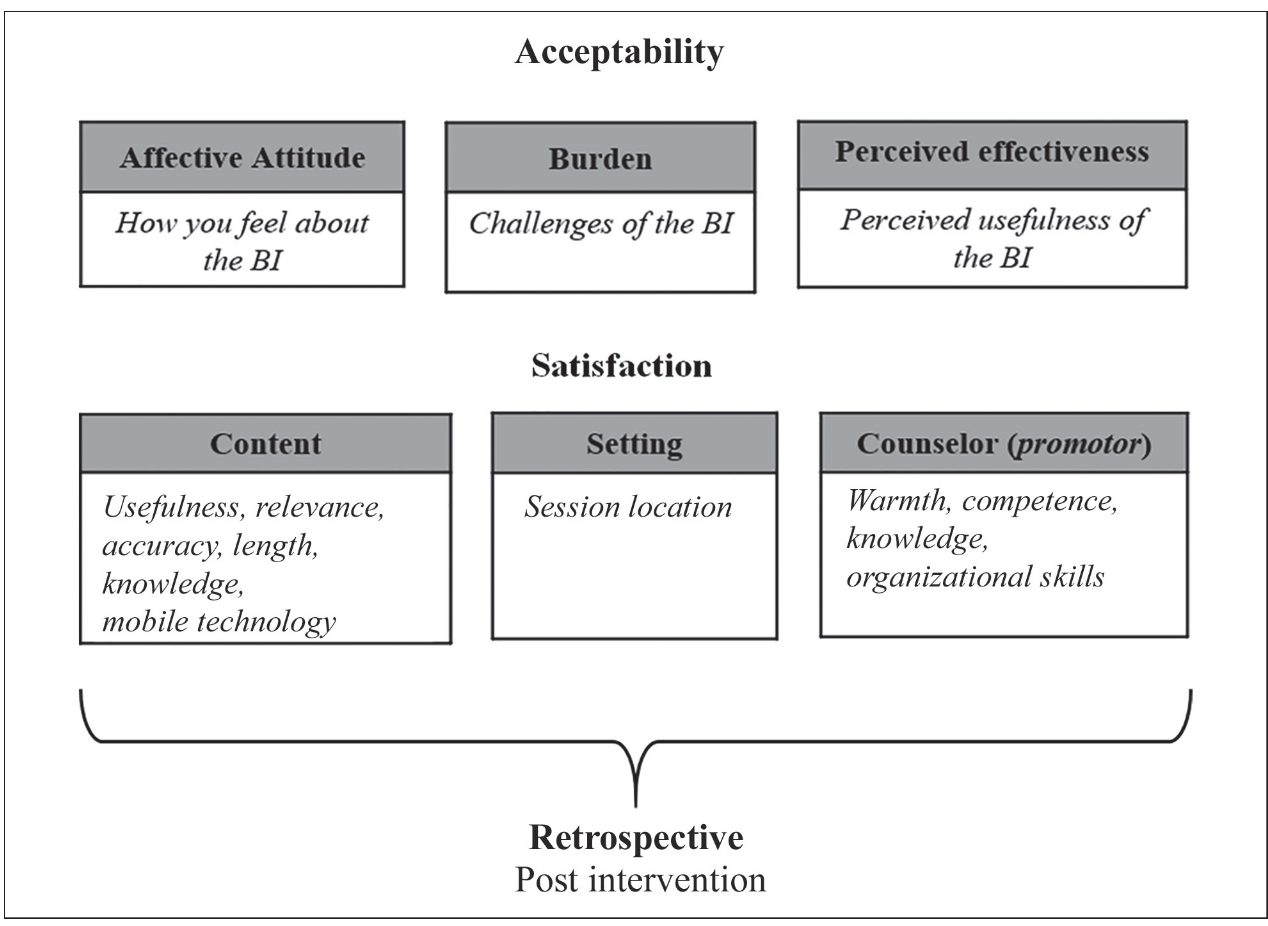

Figure 1. Assessing acceptability and satisfaction of a brief intervention to reduce unhealthy alcohol use.

Present Study—Sample and Design

A mixed methods approach was used to assess participant satisfaction and acceptability, including both participant surveys and in-depth interviews. Specifically, a concurrent embedded (nested) design was used, in which a random sample of qualitative interviews were embedded within the larger trial (Creswell, 2013). The quantitative data included participant satisfaction surveys completed by participants who received the intervention ($N = 73$) at the 2-week follow-up assessment. The qualitative data was collected through interviews with a random sample of participants ($N = 20$) who received the brief intervention and consented to be recontacted. All participants provided written informed consent prior to enrollment in the study. Qualitative interviews were conducted by a graduate research assistant who did not participate in intervention delivery or administering the surveys. Qualitative interviews were conducted in 2016 and study participants received $30 for each survey and interview completed. Quantitative and qualitative data were integrated during the analysis phase (Creswell, 2013, 2015; Tashakkori & Teddlie, 2003).

For the purposes of this study, participant acceptability and satisfaction were defined and conceptualized as two distinct concepts. Each was analyzed separately using a distinct methodology (i.e., quantitative surveys for satisfaction and qualitative interviews for acceptability), and differences and possible overlap across the two approaches were assessed during analysis (Creswell & Plano Clark, 2011). The goal in analyzing the qualitative interviews and the quantitative survey responses together was to provide a more holistic and comprehensive understanding of participants' perspectives on the intervention (Abbastashakkori, 2003; Creswell, 2013). This study was approved by the Human Subjects Division at the University of Washington.

Data Collection: Participant Satisfaction and Acceptability

The study was guided by Sekhon et al.' TFA and included satisfaction constructs (Platt et al., 2016) for each culturally adapted element of the brief intervention (Figure 1). Participant satisfaction was assessed across three domains—content, setting, and counselor

(*promotor*) qualities. Participant acceptability was assessed with three additional domains—attitude (i.e., how you feel about the brief intervention), burden (i.e., challenges of the brief intervention), and perceived effectiveness (i.e., perceived usefulness of the brief intervention) (Sekhon et al., 2017).

Demographic characteristics. Vida PURA survey data were used to summarize participants' demographic characteristics including participant age, number of years of residence in the United States, weekly income, level of education, and total hours worked per week.

Satisfaction. Satisfaction was assessed via a survey administered to the intervention group 2 weeks after receiving the brief intervention. Satisfaction with the content of the brief intervention was assessed using responses to eight items that corresponded to different aspects of the intervention (i.e., usefulness, relevance, accuracy, knowledge, length, and use of mobile technology). The measure was not developed for this study but was based on similar measures used in previous evaluations of brief interventions (Tribal Colleges and Universities Behavior Wellness Study, 1R01AA022068-01). An example item was "I found the information provided to be useful in helping me to think about my alcohol use." Satisfaction with the setting of the brief intervention was assessed with two items about session location (e.g., "the location of the session was convenient" and "the location of the session was safe"). Satisfaction with counselor (*promotor*) relationships was assessed with four items related to the *promotor's* warmth, competence, knowledge, and organization skills. An example item was "The counselor seemed warm and understanding." Levels of satisfaction were rated based on a Likert-scale ranging from 0 to 4 (0 = *completely disagree*, 1 = *disagree*, 2 = *neutral*, 3 = *agree*, and 4 = *completely agree*). Participants were categorized as being "satisfied" with the intervention if they agreed or completely agreed with the item.

Acceptability. The qualitative interview guide included a series of 20 open-ended questions with structured probes to elicit information regarding acceptability of the intervention (Appendix A). Acceptability was defined as how the recipients of the intervention perceived and reacted to it (Brooke-Sumner et al., 2015). Participants were asked what they generally thought about the brief intervention as well as what they found most challenging and useful. All interviews were conducted in person and in Spanish at a private location at the day labor worker center and lasted between 30 and 45 minutes.

Data Analysis

For the quantitative data, means and percentages were calculated to describe demographic characteristics and participant satisfaction with the brief intervention.

For the qualitative data, audio recordings of the in-depth interviews were transcribed verbatim and reviewed for accuracy by the interviewer. The data were analyzed using template analysis, a technique that utilizes thematic coding, which allows the use of a priori codes as well as emergent identification codes (King, 1998). The initial template for coding was informed by the semistructured interview questions and the TFA (Sekhon et al., 2017). The coding template was used by two bilingual and bicultural research assistants to code three initial transcripts, independently to determine consistency across coders. Discrepancies between coders were discussed among the research team, reviewed by the lead investigator, and resolved via consensus; thereafter, the template was modified. After coding consistency and data saturation were established, the remaining transcripts were coded independently by at least two coders using Atlas.ti Version 8. Queries were generated in Atlas.ti, which included all quotations for each code. Research team members read the queries and identified themes, which were then further categorized and refined. A summary of the themes was shared with coinvestigators and community advisors for assistance with interpretation. Salient quotes were identified for each theme and then translated from Spanish to English.

Results

Participant characteristics are presented in Table 1. The mean age was 48 years; the majority of men were from Mexico (n = 48, 66%) and had been living in the United States for 20 years on average. Most participants were single (n = 40, 55%), with low income and low levels of education.

Satisfaction

Most participants reported high levels of satisfaction with the content, setting, and counselors (*promotores)* delivering the brief intervention (see Table 2 for detailed findings). For each of the satisfaction items, the percentage of men who reported being "satisfied" with the brief intervention ranged from 84% to 95%. In terms of the content, the majority of participants found the information useful in thinking about their alcohol use (n = 65, 89%), relevant (n = 66, 90%), and accurate (n = 66, 90%). The men also reported that the time and length of the session was convenient for them (n = 66, 90%); they liked the use of the tablet for providing information (n = 67, 94%) and found the interaction with the tablet to be straightforward (n = 67, 93%). The

Table 1. Sample Demographic Characteristics ($N = 73$).

	Mean/*N*	(*SD*)/%
Age in years		
18–34	14	19.2
35–49	19	26.0
50+	40	54.8
Country of origin		
Mexico	48	65.8
Central America	19	26.0
Other	6	8.2
Years living in the United States	20.1	(11.5)
Marital status		
Single	40	54.8
Divorced/widowed	23	31.5
Married/cohabitating	10	13.7
Weekly salary		
$200 or less	23	32.4
$200–$300	14	19.7
$300–$400	16	22.4
$400 or more	18	25.4
Educational level		
Primary or less	43	58.9
High school graduate or GED	19	26.0
Some college or more	11	15.1
Hours of paid work in a typical week	18.7	(12.7)

Note. The total number does not add up to $N = 73$ due to missing data.

satisfaction with the setting of the brief intervention was ranked high overall, with 89% ($n = 64$) reporting that the location of the session was convenient and 93% ($n = 66$) feeling it was safe. Finally, satisfaction with the *promotor* was also high. Participants agreed that the *promotor* was warm and understanding ($n = 69$, 95%), competent and well trained ($n = 66$, 92%), knowledgeable about alcohol use in the male Latino population ($n = 65$, 89%), and organized ($n = 68$, 94%).

Acceptability

Qualitative analysis of interviews identified eight themes, which were grouped into the three domains based on the conceptual model: affective attitude—thoughts about the brief intervention (3 themes), burden—challenges of the brief intervention (3 themes), and perceived effectiveness—perceived usefulness of the brief intervention (2 themes). A summary of these themes and representative quotes is presented in the following text.

Affective Attitude—Thoughts About the Brief Intervention (3 Themes)

Theme 1. The brief intervention helped participants reflect on their alcohol use. Many participants ($n = 9$) noted that the brief intervention helped them reflect on how much alcohol they were consuming as well as the consequences of their alcohol use. For example, one participant said, “Sometimes you do not realize how much you drink and there are some drinks that are stronger than others.” Another participant said, “Well, more than anything [the brief intervention] helped me reflect on how much money I spend [on alcohol], instead of sending the money I’m supposed to send back home to my family. . .the little money that I earn is spent on my vice, alcohol.”

Theme 2. Participants found promotores *to be a trusted source of health information.* Participants had very positive perceptions about the *promotores* delivering the brief intervention. They found them to be friendly, knowledgeable, personable, organized, and trustworthy. One participant said, “[We felt] very comfortable with [the *promotores*], the truth is that they are very good people, very nice. . .with time we felt more trust. I’ve noticed that they are good to us, and they are respectful. . .”

Theme 3. Participants liked the use of tablets to see their personalized feedback. Participants described how seeing their personalized feedback displayed on the tablets was very helpful. The feedback included images of their daily and weekly drinking levels compared to the National Institute on Alcohol Abuse and Alcoholism (NIAAA) low risk guidelines, which helped them realize whether they were consuming more than the recommended guidelines and by how much. One participant said, “. . .the images help a little because you [become] conscious of what you are doing.”

Burden—Challenges of the Brief Intervention (3 Themes)

Theme 4. Participants struggled to accept that they were drinking at unhealthy levels. Participants had a difficult time accepting that they were drinking at unhealthy levels, despite their high AUDIT scores. One of the participants said, “Well, the hard part was to start accepting that [I have a problem] with alcoholism.” A few ($n = 3$) of the men who acknowledged that they were drinking at unhealthy levels highlighted the importance of accepting it as a first step to addressing their alcohol use.

Theme 5. Participants wanted concrete guidelines for reducing their drinking. Participants suggested providing more guidance and direction on how to reduce their alcohol consumption during the brief intervention. A few men ($n = 3$) found the motivational interviewing approach to be slightly vague in addressing unhealthy alcohol use; when participants were asked by the *promotores* about ways to reduce their drinking, they were unsure of what to do. For

Table 2. Satisfaction With the Brief Intervention (*N* = 73)

	N	%	Mean	(*SD*)
Brief Intervention Content				
The information was useful in helping me think about my alcohol use	65	89.0	3.2	(0.64)
The information provided was relevant to men like me	66	90.4	3.2	(0.75)
I am confident that the information provided is accurate	66	90.4	3.3	(0.78)
I feel better able to deal with alcohol-related situations	61	83.6	3.1	(1.11)
I learned new information about drinking and its consequences	63	86.3	3.0	(1.06)
The time and length of the session was convenient	66	90.4	3.3	(0.84)
I liked the use of the tablet for providing information	67	94.4	3.4	(0.80)
I found the interaction with the tablet to be straightforward	67	93.1	3.3	(0.80)
Brief Intervention Setting				
Location of the session was convenient	64	87.7	3.2	(1.03)
Location of the session was safe	66	93.0	3.3	(0.92)
Counselor (*promotor*) seemed. . .				
Warm and understanding	69	94.5	3.4	(0.71)
Competent and well-trained	66	91.7	3.5	(0.65)
Knowledgeable about alcohol use in the Latino population	65	89.0	3.3	(0.78)
Well-organized	68	94.4	3.5	(0.61)

Note. The total number does not add up to *N* = 72 due to missing data.

example, one participant said, "I feel that part of the intervention could be to give the participants some direction on where to go to receive help, even for a person like me who is not an alcoholic, but definitely wants to [stop drinking] all together." Another participant explained, ". . .[I am] looking for a solution. . .maybe not a solution, but a response [such as]—look you have three options to help you avoid [drinking]." Overall, participants wanted more concrete guidelines to help them reduce their alcohol consumption.

Theme 6. Participants wanted more sessions with the promotores*.* Participants also requested more brief intervention sessions. While all of the men mentioned that the length of the brief intervention was appropriate, they suggested that having more sessions with the *promotores* would provide more time to discuss ways to reduce their unhealthy alcohol use. In an interview, one participant stated, "If the [brief intervention] was done more frequently, it would be better. . .because that way we can pay attention more closely and not forget. . .the advice given to us."

Perceived Effectiveness—Perceived Usefulness of the Brief Intervention (2 Themes)

Theme 7. Participants perceived the brief intervention as useful and effective in reducing their drinking. Participants thought that all the components of the study were helpful to make changes. Participants believed they reduced their drinking in response to the intervention. For example, one man said, ". . .I was astray, drinking and this *charla* [chat] helped me reduce [my drinking] a little bit, [however] I haven't been able to completely stop drinking like I would like, but the *charla* has been useful." Another explained that he was able to reduce his drinking due to ". . .the motivation that [the *promotores*] gave [me]—it encouraged and pushed me to begin drinking less." Another helpful strategy shared was ". . .to focus on the risks of drinking—a car accident, getting a DUI, and many other ways that our world can be shattered."

While participants acknowledged that the study and brief intervention were helpful for reducing their alcohol consumption, they highlighted the role of self-motivation to make changes in their drinking behavior. They expressed a desire to take ownership for reducing their alcohol consumption and emphasized that in addition to being able to receive support from the *promotores*, they were also driven by their will power to make the changes. One participant said, "[It is a matter] of doing something on your part."

Theme 8. Participants felt that the brief intervention was not enough to reduce their drinking. Although the brief intervention was helpful for participants to identify that they drink at risky levels, participants reported that it was not enough to get them to reduce their alcohol consumption. One of the participants said, "Well, I am still in the same boat. The truth is that this doesn't go away. I was able to stop drinking for about two or three months. . .So at first, I was able to contain myself because I was taking

medication, but it was very difficult for me because the truth is that I always drink." Two other men resonated with this notion that they did not have the *fuerza de voluntad* (will power) to stop drinking.

Discussion

This mixed methods study assessed satisfaction and acceptability of a culturally adapted brief intervention to reduce unhealthy alcohol use among Latino immigrant men. Findings suggest that participants had high levels of satisfaction with and acceptability of the brief intervention, including the content and the way it was delivered. Participants found it challenging to integrate the personalized feedback with their perception of their alcohol use; some wanted clearer advice and more intervention contacts. The men described challenges in reducing their drinking that aligned with dependent drinking. Moreover, while the intervention was perceived as useful, they also believed that true change had to come from participants themselves.

Both quantitative and qualitative data identified high levels of satisfaction with and acceptability of the content and delivery mechanisms of the brief intervention. In survey data, participants reported finding the brief intervention content useful, relevant, and accurate, they found the tablet useful for receipt of information, and they found the *promotores* delivering the brief intervention to be warm and understanding, competent, knowledgeable, and organized. Findings from qualitative interviews supported survey results, demonstrating participants' positive perceptions of the brief intervention. Specifically, they described feeling like the intervention helped them reflect on their drinking behaviors, they liked the use of tablets to see their personalized feedback, and they reported great satisfaction with and appreciation for the *promotores*, who they perceived to be a trusted source of health information.

Findings related to satisfaction with tablets are consistent with findings from the formative research for the Vida PURA study—that some Latino immigrant men have low levels of formal education and therefore utilizing simple graphics can help make the information more accessible for this population (Ornelas et al., 2016). The findings were also consistent with evidence suggesting that *promotores* are a trusted source of health information for underserved populations, including men (Arvey & Fernandez, 2012; Ramos et al., 2018; Rosenthal et al., 2010). Participants also highlighted specific *promotor* characteristics that contributed to their positive perceptions of the brief intervention, which included being friendly, personable (i.e., warm and understanding), trustworthy, knowledgeable, and organized. These qualities reflect cultural values often shared by Latinos, such as *personalismo*—personal attention in establishing affective connections and working relationships (Flores, 2000). Together, these findings confirm that culturally adapting the intervention by having *promotores* deliver the intervention was critical in establishing rapport and developing trusting relationships with the study participants (Ramos et al., 2018) and delivering the information in an accessible way, each contributed to high levels of satisfaction with and acceptability of the intervention (Barrera et al., 2017). Establishing these trusting relationships may be particularly important for Latino men who have been previously mistreated or discriminated against by those in the health and social service agencies (Fleming et al., 2017; Mann-Jackson et al., 2018).

Participants shared some of the challenges they experienced with the intervention and offered several suggestions on how to improve it. Although the participants found the personalized feedback to be helpful, one of the major challenges was accepting that they drink too much. For Latino men, unhealthy alcohol use may be common due to greater acceptance of heavy drinking among men in the Latino culture (Kulis et al., 2008). Additionally, participants provided three pieces of key feedback that may be useful for refining the brief intervention. First, they suggested providing more concrete guidelines to reduce alcohol consumption. Specifically, while the participants found the motivational interviewing approach to be helpful in self-reflecting, they also sought more directive advice. These findings are aligned with those of previous studies, which suggest that alcohol-related interventions in this population may need to balance participant autonomy with providing direct advice for those interested in reducing their drinking (Bradley et al., 2018; Oslin et al., 2014). Second, participants suggested having more brief intervention sessions with the *promotores.* Prior studies have underlined that repeated interventions may be the most beneficial. (Kaner et al., 2018; O'donnell et al., 2013). Third, though the participants who received the brief intervention largely reported feeling that the intervention was useful for increasing self-motivation and taking steps to reduce their drinking, they also described a feeling that the decision to reduce their drinking would ultimately have to be self-generated and that the intervention did not improve drinking relative to the control in the pilot study. Sentiments expressed by participants are similar to those identified in prior qualitative work among persons receiving alcohol treatment, in which participants described the importance of behavior change coming "down to me" or the idea that changes in alcohol use need to be self-directed to be effective (Orford et al., 2006). In combination, this feedback suggests that a refined brief intervention may be more effective if it is more directive, incorporates a greater number of sessions or contact, and focuses on self-efficacy and motivation as key levers of change. Further research is needed to test whether such refinements improve the efficacy of a culturally adapted alcohol counseling intervention for Latino immigrant men.

Limitations

Though this mixed methods study resulted in convergent findings across methodological approaches (Creswell, 2013; Creswell & Plano Clark, 2011) and provided key feedback from participants with regard to their satisfaction with and acceptability of a culturally adapted brief intervention in ways that can help refine such interventions, this study has several limitations. First, the findings may not be generalizable to other populations. Although a random sample of participants was selected from the larger study that received the intervention to participate in the qualitative interviews, only participants who agreed to be contacted for future studies were included. Participants in this study may have reported higher levels of acceptability compared to those who chose not to participate. Other limitations include potential biases due to social desirability. Participants who reported high levels of satisfaction may have been motivated out of desire to meet the expectations of the *promotores* or research team members. Other studies have reported a strong tendency toward social desirability in Latino populations, who value respect for authority figures and interpersonal relationships (Hopwood et al., 2009).

Conclusions

Despite these limitations, the present study provides a strong foundation for understanding the components of an alcohol-related intervention designed to reduce alcohol-related disparities. These findings suggest that the components of the intervention that were culturally adapted, such as having bilingual and bicultural *promotores* to deliver the intervention and delivering the intervention in a community setting, contributed to the participants' positive perceptions of the brief intervention (Ayala & Elder, 2011; Barrera et al., 2017). Given the negative trial results, the findings can also help improve future iterations of the culturally adapted brief intervention. Brief interventions may be more effective if they maintain the *promotores* and the tablets to deliver the intervention, incorporate a greater number of intervention sessions, tailor intervention content to provide explicit advice, and include shared decision-making around treatment options for higher risk participants. Future studies should test a refined intervention that builds on the findings from this study.

Authors' Note

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Supplemental Material

Supplemental material for this article is available online.

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