Author Manuscript
Author Manuscript
Author Manuscript
Author Manuscript

# HHS Public Access

Author manuscript

*J Subst Abuse Treat*. Author manuscript; available in PMC 2022 August 01.

Published in final edited form as:

*J Subst Abuse Treat*. 2021 August ; 127: 108352. doi:10.1016/j.jsat.2021.108352.

# Structural racism and reflections from Latinx heavy drinkers: Impact on mental health and alcohol use

**Christina S. Lee, Ph.D.**[a], **Bridget M. O'Connor, M.S.**[b], **Irina Todorova, Ph.D**[c], **Mariana E. Nicholls, M.A.**[c], **Suzanne M. Colby, Ph.D.**[d]

[a]Boston University School of Social Work, 264 Bay State Road, Boston, MA 02215

[b]Boston, MA

[c]Department of Applied Psychology, Bouvé College of Health Sciences, Northeastern University, 360 Huntington Avenue, Boston, MA 02115, USA

[d]Department of Psychiatry & Human Behavior, Center for Alcohol & Addiction Studies, Alpert Medical School of Brown University, 121 South Main St., Providence, RI, 02912, USA

## Abstract

**Background:** Discrimination and social inequity increase risk for alcohol use disorders among Latinxs. An alcohol intervention trial that led to significant reductions in alcohol-related consequences also produced significant reductions in mental health symptoms for Latinx heavy drinkers. In the current qualitative study, we explore this trial's mental health effect by examining participants' perspectives on the social context of immigration, i.e., structural barriers, and associations among the immigrant experience, stigma, depressive/anxiety symptomatology, and alcohol consumption.

**Methods:** Study participants were eligible if they completed the clinical trial, exhibited levels of depressive and anxiety symptoms that exceeded the range for clinical depression ( 18, CES-D) and anxiety ( 12, BAI) at baseline, and demonstrated significant declines in depression and anxiety symptoms 12 months following their completion of the trial. The study coded 24 participant transcripts using ATLAS.ti and thematic analysis.

**Results:** Participants reported their responses to structural barriers (e.g., a lack of educational supports, difficulties accessing safety net programs). Reported experiences of exclusion and discrimination were associated with depressive and anxiety symptoms. Stigmatization processes

Correspondence may be sent to Christina S. Lee at the Department of Clinical Practice, Boston University School of Social Work,264 Bay State Road, Boston, MA 02215. (Office) 617-353-1415, leecs@bu.edu.

Author Contributions

Christina Lee: Conceptualization, Writing-Original draft preparation, Resources; Bridget O'Connor: Investigation, Visualization, Methodology, Writing –Reviewing and Editing; Irina Todorova: Conceptualization, Methodology, Writing- Reviewing and editing; Suzanne Colby: Methodology, Writing- Reviewing and Editing, Mariana Nicholls: Writing- Reviewing and Editing

Declarations of interest: none.

**Publisher's Disclaimer:** This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

included feeling isolated and contributed to poor mental health. Participants reported drinking to cope with low mood.

**Conclusions:** Structural barriers are exclusionary because they limit full participation and communicate who does/does not belong along race/ethnic lines, i.e., structural racism. Feeling stigmatized for being different was associated with feelings of anxiety and depression among our immigrant participants. Future interventions must focus on stressors associated with the constraints of being an immigrant. Understanding how structural barriers and structural racism impact health behavior can enrich the design and impact of interventions for socially disadvantaged Latinx individuals.

### Keywords

Immigration; Depressive symptoms; Alcohol consumption; Latinxs; Intervention; Discrimination; Qualitative methods

## 1. Introduction

Immigrants and their U.S.-born children constitute 28% of the U.S. population (90 million people) with 44% reporting Latinx origins (Batalova et al., 2020). In the United States and internationally, labor policies and immigrant status enforcement have created a social milieu for immigrants that is characterized by prejudice and fear (Castañeda, 2015). Stressors associated with immigration include poverty, reduced access to economic opportunities, and social isolation (Cano et al., 2015; Cano et al., 2017; Ornelas & Perreira, 2011). Such stressors, i.e. "experience[s] denoting adversity" (Keyes et al., 2011, p. 2), have been associated with risky health behaviors like heavy drinking among Latinxs (Keyes et al., 2011).

However, there are important differences among Latinx subgroups. (The use of "Latinx" rather than "Latino/a" or "Latino" is intentional in promoting a social justice mission that includes all gender identities and expressions within the community. The term Latinx has been adopted widely across the field and has been promoted by the National Latinx Psychological Association to support sexual orientation and gender diversity by intentionally not using a term grounded in binary models of gender, such as "Latino/a."). For example, although an analysis of the NESARC revealed substance use disorders to be positively correlated with acculturation (measured as time spent in the United States and language preference), the analysis found Puerto Ricans to have increased odds of past year drug use disorder relative to other Latinx subgroups (Blanco et al., 2013). Similarly, an analysis of the Monitoring the Future Study revealed a higher prevalence of marijuana use among more highly acculturated Mexican-American youth only (Delva, Wallace, O'Malley, Gachman, Johnston, & Schulenberg, 2005).

How might immigration stressors be related to heavy drinking among Latinxs? At the individual/psychological level, Minority Stress Theory posits that exposure to stressors like discrimination prompts feelings of anxiety and depression, which then increases vulnerability to adopting unhealthy ways of coping, like heavy drinking (Meyer, 2003). Other psychological variables like emotion regulation (i.e., the ability to identify one's

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

emotions and then to access strategies to respond in a controlled and adaptive way (Gross, 2015; Tull & Aldao, 2015), exert effects on this relationship among Latinxs (Paulus et al., 2016). Emotion regulation mediated the link between acculturative stress and problematic alcohol use among Latinxs in primary care (Paulus et al., 2019), indicating that it was not just the presence of negative emotions, but the ability to manage them, that was important in predicting subsequent alcohol misuse (Paulus et al., 2016). For the Latinx populations in the United States, these linkages (stressors to mental health, stressors to heavy drinking) have been reported in separate studies. Exposure to stressors related to immigration status such as discrimination was found to increase risk for alcohol and other substance use disorders among Latinxs by diminishing mental health (Abraído-Lanza et al., 2016; Ornelas et al., 2011; Todorova et al., 2015).

Evidence from national (Alegría et al., 2007; Zemore, 2005) and community samples (Torres & Ong, 2010) of Latinxs have supported the association between experiences of discrimination and symptoms of depression. Ethnic identity, or one's self-concept based on one's membership in a particular ethnic group (Phinney & Ong, 2007), has been found to buffer the effects of discrimination on psychological distress among Latinxs (Torres & Ong, 2010). The association between discrimination and heavy drinking has been similarly documented in national surveys. For example, the National Latino and Asian American Survey revealed that among Latinxs, discrimination is associated with increased heavy drinking and frequency of drinking (Borrell et al., 2010; Mulia & Zemore, 2012; Savage & Mezuk, 2014). A secondary analysis of the 2005 National Alcohol Survey (which includes nondrinkers) showed that among Latinxs, higher levels of perceived unfair treatment and racial stigma were significantly associated with alcohol dependence symptoms and other alcohol-related negative consequences (e.g., injuries, accidents, workplace problems) (Zemore et al., 2011).

However, there are few qualitative studies on how Latinx individuals themselves viewed any connections among stressors, mental health, and alcohol consumption (Meyer, 2003). We interviewed Latinx heavy drinkers who had participated in a trial of a brief motivational intervention to reduce heavy alcohol use. Within an MI framework, we broadened the intervention to address the social context of being an immigrant in the United States and addressed stressors related to immigration such as discrimination (Lee, C. S., Colby, S. M., Rohsenow, D. J., Martin, R., Rosales, R, McCallum, et al., 2019). Although the primary target was alcohol use, participants also showed significant declines in symptoms of anxiety and depression (Lee, Rosales, Colby, Martin, Cox, & Rohsenow, 2020). If the intervention included discussion of social stressors related to being an immigrant, and these stressors were related to anxiety/depression symptoms, then such discussion may have contributed to the described improvements in mood. Was low mood prompted by discriminatory experiences and the challenges of being an immigrant in the United States? Was drinking in fact viewed as a way to cope with low mood?

The first aim of the current qualitative study was to query participants about what it was like to be an immigrant (e.g., stressors, challenges) and whether participants associated these experiences with psychological distress and alcohol use. Structural barriers are the concrete social conditions that affect how people live and work, e.g., access to reliable transportation

Author Manuscript
Author Manuscript
Author Manuscript
Author Manuscript

and safe housing. Structural barriers and policies that systematically exclude groups from full participation in society are examples of structural racism (Gee & Ford, 2011; Viruell Fuentes, Miranda, & Abdulrahim, 2012. Structural racism refers to practices that produce differential access to opportunities and resources along race and ethnic lines (Gee & Ford, 2011; Viruell Fuentes, Miranda, & Abdulrahim, 2012). Structural racism influences health through segregation and exclusionary policies. For immigrants, such exclusionary policies may result in experiences of discrimination and prompt self-stigmatization processes. We explored whether such processes produced psychological distress and alcohol problems. Our second aim was to examine the potential effect of structural barriers related to immigrant status on mental health and substance use. Finally, we asked participants how the parent trial's intervention may have helped with anxiety and depressive symptoms.

## 2. Materials and methods

### 2.1. Description of the parent clinical trial

Participants self-identified as first or second generation Latinx adults, ages 18–65 years, who reported two or more heavy drinking episodes ( 4/5 drinks per occasion for females/males) in the past month, and were not in alcohol treatment. Exclusion criteria were: evidence of cognitive impairment, active drug use (4+ times in the month, excluding marijuana), and active psychotic symptoms. Between September 2013 and November 2016, the study recruited participants in a city in the northeast United States and surrounding areas. After completing a baseline assessment, including measures of depressive and anxiety symptoms, the study randomized participants to receive either a standard motivational interview (MI) or a culturally adapted motivational interview (CAMI). The CAMI incorporated a specific focus on discussing stressors related to the immigration experience that research has theorized helps to reduce heavy drinking and alcohol problems (Lee, C.S., Colby, S.M., Magill, M., Almeida, J., Tavares, T., & Rohsenow, 2016). After completing the intervention, the study contacted participants at 3, 6, 9, and 12 months to complete follow-up assessments about their levels of alcohol use, alcohol-related consequences, and depressive and anxiety symptoms. The study received human subjects approval at a university in the northeast United States (IRB# 12–08-45). The authors registered the parent clinical trial with Clinicaltrials.gov with identifier NCT # 01996280.

### 2.2. Qualitative study participants

Participants had to meet the following criteria to be invited to participate in the interview study: 1) At baseline, showed elevated anxiety (BAI 12) and depression (CES-D 16) scores, and 2) At twelve months, showed statistically significant reductions in depressive and anxiety symptoms and in the frequency of drinking outcomes/negative alcohol-related consequences. We contacted all 70 eligible participants up to one year after completing the final 12-month CAMI follow-up. Twenty-six had a wrong number on file and were not reachable. Study staff contacted the remaining $n = 44$ and 20 were unable to participate (10 with transportation challenges, 5 had moved, 4 not interested, 1 hospitalized). There were 24 total participants in the qualitative study ($n = 13$ had received CAMI; $n = 11$ had received MI).

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

Study staff informed the participants that the intent of the qualitative interview study was to understand their experiences and responses to the intervention. A bilingual research assistant administered all procedures and conducted the interviews. The study offered participants the option to complete the interview by phone or in-person; in the latter case the study provided prepaid train passes for travel to and from the study site. Participants received a $25 gift certificate for their time. The study audio recorded interviews and used a semistructured approach (Table 1). The questionnaire included 11 main questions with additional clarification questions added when relevant. A research assistant transcribed verbatim the English interview tapes and a bilingual research assistant transcribed verbatim the Spanish tapes and then translated them into English.

### 2.3. Qualitative data analysis methods

Research staff conceptually framed study aims and the interview guide using Minority Stress Theory (MST), based on the empirical literature, which demonstrates sensitivity to theory and to social/cultural contexts (Neale, 2016; Yardley, 2000). The analysis is guided by Minority Stress Theory (Meyer, 2003) at the individual level, which explains that the accumulation of stressors that result from multiple sources of stigma due to race, ethnicity, and immigration status can attenuate mental health. It also uses a social/structural determinants of health (SDH) lens on a broad level (Abraído-Lanza et al., 2016; Castañeda et al., 2015; Otiniano-Verissimo, Grella et al., 2014), to understand how the context of immigration, including related structural barriers, influenced our participants' responses. Because we sought to avoid influencing participants' disclosures, our questions were open ended and we did not ask participants to confirm/disconfirm associations.

We conducted qualitative data analysis based on thematic analysis (Braun & Clarke, 2006), including iterative categorization, a technique to manage data that supports thematic analysis (Neale, 2016). This approach allowed us to understand participants' experiences living as immigrants and at the intersection of gender and race. Throughout coding and interpretation, we placed a strong emphasis on staying close to the voices of the participants (Manning, 2017). Before beginning coding, the two coders familiarized themselves with the audio recordings and transcripts to achieve an overarching understanding of the content of the interviews and initial patterns in the data. We conducted the analysis of the transcribed interviews using the qualitative data analysis software Atlas.ti (Scientific Software Development GmbH, Germany, https://atlasti.com/). We first marked large segments of the texts of transcribed interviews with specific codes to capture fundamental meanings. This process allowed coders to simultaneously view the text as a whole while extracting segments of text labeled by specific codes to maintain subtle nuances. The study then integrated iterative categorization as an explicit method for organizing/coding, categorizing, and interpreting qualitative data (Neale, 2016).

Coding consisted of several steps, which were iterative and not necessarily linear. We started with initial coding by marking segments of text with codes which are close to the content of the text, and thus creating a coding scheme that was used across interviews. At the next reading and coding of the transcripts, these smaller codes could be merged into larger code categories. This creates a hierarchical "tree" of codes that allows the coder to make

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

comparisons across the data as part of the interpretation. At the next step, we merged these categories into broader themes, as well as more abstract and interpretative themes, which were identified in the majority of the interviews. For example, in our initial coding, we generated codes like "difficulty communicating due to language barrier, racism, increasing violence, fear of deportation, U.S. political climate", under the category "Reasons for Anxiety". The "Reasons for Anxiety" category was then then merged with the "Reasons for Depression" category. Both were under the broader theme, "Association between Immigration, Depression, and Anxiety Symptoms". Thematic analysis starts with description, which organizes the text to show patterns of content and then moves to interpretation, which aims to understand the broader meaning and importance of these patterns (Braun and Clarke, 2006). Thus data analysis and interpretation involved the process of coding, theme development, and interpreting the meaning of the text, the latter of which was further deepened during the elaboration of the themes. In summary, using thematic analysis (Braun & Clarke, 2006), we examined patterns and identified themes within and across the 24 participants' interviews, looking for consistencies, inconsistencies, and connections between themes (Neale, 2016).

## 3. Results

There were 24 participants (8 men, 16 women) averaging 46 years of age ($SD = 11.41$). Sixty-three percent migrated from Puerto Rico ($n = 13$) or emigrated from the Dominican Republic ($n = 2$); the remaining individuals emigrated from Columbia, Honduras, Cuba, and Mexico. Our participants lived in the United States for more than 20 years, averaged less than $15,000/yearly income, and nearly 60% were unemployed.

### 3.1. Difficulties of immigration

When asked to describe their immigration experiences, most (21/24) participants (5/8 men; 16/16 women) described hardships that they experienced as the result of policies that limited their access to resources, education, and well-paying employment. One participant described her mother's challenges when they first arrived from Puerto Rico:

> She had to sign on the welfare, what's that called, from the state, to get help. Yea, so it was tough, she had to try to get a way to get welfare. To get help, to feed us.
>
> She was going to, uh, I think they were like food banks at the time, stores that give out government food (Female, age 59).

According to social theorists, restricted access to social safety net programs is a common discriminatory practice toward immigrants (Castañeda et al., 2015; Falconier et al., 2016; Hacker, Chu, Arsenault, & Marlin, 2012), motivated by nativist ideology defining certain immigrant groups as not deserving of citizenship or "unassimilable others" (Gee & Ford, 2011; Viruell Fuentes et al., 2012). For example, not being able to speak English fluently excluded one participant and her family from full participation in school. This participant described difficulties in school because she had to learn English while serving as the family interpreter. Her challenges were exacerbated by her mother's struggle to learn English:

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

> My mom never fully learned reading and writing in Spanish, by the time she came here (to the U.S.), just to learn English was a problem. And she tried, I remember her trying so hard when I was younger. She would try to help my sister and I with schoolwork and she couldn't … I remember it was really tough, like my sister and I would have to go interpret for her at appointments. The language barrier was an issue because as a kid, I couldn't really interpret certain words – it was difficult. (Female, age 32)

The process of being set apart as different, or "othered" produced inequality by locating participants within a social hierarchy (Viruell-Fuentes, 2012). Those with limited access to life opportunities like a good quality education had lower status on the social hierarchy. Other structural barriers related to being an immigrant included limited access to reliable transportation and well-paying employment (Castañeda, 2015). A participant explained that her mother had to work all the time and spent long hours commuting to work with little flexibility in her work schedule. Such a schedule impacted the family:

> I was nine when I got here. I have eight younger siblings … I had to pick up the slack of everybody really quick. I don't know, mom always made it look like it was my responsibility to do everything pretty much … yeah, I pretty much did all the responsibilities. Because I was older, it was expected of me to take on that responsibility. Yeah, I got very depressed, over the years, and started doing a whole bunch of bad things and it didn't land me in any nice places. (Female, age 47)

This quote also demonstrates the intergenerational "drag" effects of structural racism (Gee & Ford, 2011), as structural factors produce differential access to life opportunities that persist (Viruell-Fuentes et al., 2012). The prolonged effects of disadvantage impacted this participant, who developed depression and initiated risky behaviors as she grew older.

**3.1.2. The effects of discriminatory policies: Marginalization—**According to the theory of structural racism, immigration policies systematically exclude groups of people by defining who "belongs" to the United States or deserves citizenship along race lines (Gee & Ford, 2011; Morey, 2018; Viruell-Fuentes et al., 2012). The net effect of these policies is to segregate people from mainstream society (Gee & Ford, 2011). The aggregate demographic profile of the trial participants—low income and employment levels despite years of U.S. residency—suggests segregation, or at the very least, minimal social integration. Thus "becoming American" is a racialized process whereby those deemed not deserving of citizenship are not treated equally (Morey, 2018; Grove & Zwi, 2006). All immigrants, regardless of their legal status, are included in this category because of their race/ethnicity (Gee & Ford, 2011; Morey, 2018; Viruell-Fuentes et al., 2012), and they experience the same barriers to accessing health care (Hatzenbuehler, Prins, Flake, et al., 2017). Stigma is defined as the presence of stereotyping, loss of status, and discrimination that occurs where there is a power differential, or where people are stereotyped in a way that gives them a lower status in society with less political power (Morey, 2018). Many participants reported feeling a loss of status (identity) and discriminated against for being an immigrant (19/24 total, 7/8 men, 12/16 women).

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

In describing their status as immigrants, people felt enervated by their status of being "in-between" countries, because a source of identity, a peer group, was lost: "I left friends behind that I grew up with … I had to learn how to speak English really fast. … It sucked the energy out of me I guess (Female, age 47). Others described feeling alienated, or "out of place" after arriving to the U.S. mainland from Puerto Rico. This contributed to a sense of vulnerability or exposure for being made to feel different:

> It was difficult to move back here (the U.S.), I felt uncomfortable and sometimes I was out of place. I knew English, but I still felt out of place, because I got used to living the way, the way we lived in Puerto Rico. (Female, age 40)

In the next quote, one participant describes how being "othered", or being made to feel like an outsider, prompted feelings of anxiety and depression.

> [On his reasons for anxiety/depression] Um, seeing other families, because I never really exactly had that … a lack of finances sometimes … sometimes strangers. Or people who always, who always kind of seem like, like they're a little too touchy, or like, like staring at you, trying to like, figure you out, or something, like a total stranger. And I'm like, oh my god, like quit staring, or something, you know? (Male, age 35)
>
> The feeling of "not belonging" was intensified when there was more than one source of discrimination. One Latinx participant who was also Black, described not being able to fully "express" himself with his father because he did not speak Spanish fluently. When he was with either racial/ethnic group, he wondered if they were "saying things about me because I was Black and I was Hispanic":
>
> They would like – "you're Spanish"…so then the Spanish would say "you're Black", and so I would have loved to have been either one or the other so that I didn't have to hear from this group that I was this, and from that group that I was, you know, the other. (Male, age 25)

In the following quote a participant shared how not being able to speak English made him feel ashamed. According to Morrey (2018), the racist underpinnings of an anti-immigrant environment denigrates those who do not fit into the image of who is a "true" American, i.e., English speaking non-Hispanic white Americans. The participant was experiencing the stigma of being an outsider, i.e., not being able to speak English,

> The language of … of … English has been difficult. Because I didn't take English classes in Puerto Rico when I was in school, it's been hard for me. It's been hard for me. I understand a lot, but I don't know … I get embarrassed to speak it (in the U.S.). (Male, age 57)

These quotes show how societal messages of exclusion result in people isolating themselves from society out of shame and are examples of self-stigmatization. The process of self-stigmatization involves people internalizing negative societal messages about their group (Corrigan, Sokol, & Rusch, 2013; Schomerus et al., 2011). Studies of Latinx children who, aware of the negative sociopolitical climate, demonstrated low self-esteem and shame about their immigrant status, indicating awareness about stigma against immigrants (Dreby, 2012). In our study, participants, who were exposed to messages that told them they did not fit in or

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

belong anywhere, began to feel alienated and alone. In the next case, loneliness culminated in feelings of depression:

> I feel lonely, like I don't have my family by my side. I feel depressed… my family is helping each other and are with my grandmother. It's been seven years that I haven't seen her. I get depressed. I'm depressed. I'm depressed and thoughtful. I'm always thinking. That hurts me, it makes me sick. It depresses me. And now that I can't see her, my family does not put her on the phone for me. They don't answer my phone calls. (Male, age 42)

These examples show that participants felt like they did not belong, were separated from the mainstream, and given a lower societal status. These were examples of discrimination that occurred in the presence of a power differential, i.e., stigma (Morrey, 2018). Studies have shown that exclusion and segregation negatively affect physical and mental health (Acevedo-Garcia, 2000; Mair, Roux, & Galea, 2008).

### 3.2. Association among immigration, depressive, and anxiety symptoms

In response to the question, "How, if at all, has your immigration experience/coming to the U.S., influenced your mental health?" three-quarters of the participants (18/24; 4/8 men; 14/16 women) expressed feelings of anxiety and depression. The quotes provided next describe participants' emotional response to the unwelcoming climate. We conducted the study in 2017–2018, a time of increasing anti-immigrant political discourse that encouraged prejudicial attitudes (Pierce, Bolter, & Steele, 2018). One participant described how racism increased her anxiety by making her feel vulnerable to attack:

> Well, I don't know if I should say this, but I get nervous with myself and my kids with the police in the current situation, like in how things are going in my neighborhood. Sometimes I'm afraid to get pulled over for something simple that can get escalated because of my race. Sometimes I feel like we are targeted, sometimes I feel like my kids are targeted and that causes me anxiety. And my older boys, like based on our race … I feel like them even coming home from work or school causes me anxiety. I would say it's the police and the racism. (Female, age 44)

One participant described feeling that that her family was not accepted. Her observation contributed to feelings of depression as she matured:

> I can't say I was depressed as a kid, but later on in life when I started looking back, and you know, I started feeling kind of depressed, you know, I used to say to myself: "Why me? Why my family? Why can't we be one or the other?" And you know, I think I got more depressed more in teenage and young adult years. (Female, age 63)

In these quotes, participants described their experiences of "enacted stigma" (i.e., harassment and discrimination; Lyons et al., 2019), which were associated with feelings of anxiety and depression. Research has documented well the relationship among stigma, mental health, and alcohol use (Grzywacz et al., 2010; Haztenbuehler, 2016; Schomerus et al., 2011).

Author Manuscript
Author Manuscript
Author Manuscript
Author Manuscript

#### 3.2.1. The stigma associated with being an immigrant and with having mental health issues—

Similar to other studies with Latinx individuals, participants in our study reported stigma against mental health care and seeking help (Interian et al., 2010; Mora-Rios, Ortega-Ortega, & Medina-Mora, 2017). Participants said that family members and the community would discourage them from seeking help (17 of the 24 participants [3/8 men; 14/16 women]). Their family sometimes invalidated their emotions:

> If I sit there and even try to express how I feel, it's always like, "You got no reason to feel that way". Like [my partner] doesn't believe in depression or anything like that. He says, "Oh doctors don't know what they're talking about, they're just looking for a track to write prescriptions, every prescription they write they get a check for". (Female, age 37)

One participant described how she learned that these issues were not to be shared or asked about:

> I mean … that's a very touchy subject (the effects of immigration on mental health). Like, we don't really – I mean unless we do talk about it sometimes. Like I remember asking my mom once why she never learned English. And I didn't know the full backstory, but after I was like, "Maybe I shouldn't have asked her that". We don't talk about those things. (Female, age 32)

Another participant described that he was aware of his father's mental health struggles because of his immigration challenges. The topic was never raised within the family:

> I think immigration was difficult for [my father] and he struggled with depression, and it did cause anxiety, especially when his parents died. It was something that I definitely noticed but we did not talk about it. (Male, age 29)

Immigrants who experience mental health stigma suffer the burden of more than one stigmatized identity (Morrey, 2018) and are at greater risk of not receiving care. Stigma is a barrier to seeking treatment (Lyons et al., 2019) because people feel unworthy and less deserving of help than others (Hatzenbuehler, 2016).

### 3.3. Associations between low mood and alcohol consumption

We did not ask participants to confirm any associations between heavy drinking and psychological distress. Yet most participants (20/24) reported using alcohol as a way of coping with negative feelings (7/8 men; 13/16 women). These associations were explicit ("I drink because of depression") and used symptom-specific language ("I drink because I feel worthless"). In the next excerpt, a participant describes and identifies her symptoms as anxiety and connects her drinking behaviors directly to her experience of anxiety.

> Sometimes I feel unhappy, like not miserable … but I just try to keep an open mind. If I get stuck … that's when I feel like trapped and I have to get out the trap. I feel my drinking issue has a lot to do with what I do with my anxiety. (Female, age 54)

> Another participant spoke of the relationship between her depression and her alcohol use, emphasizing her intent to use drinking as a way to distance herself and not feel upset by daily events:

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

> Today, there's nothing really that makes me feel less depressed, but the drinking. To numb myself from what's going on in this world today. It's very scary. (Female, age 59)

Minority Stress Theory proposes that when the exposure to stressors become overwhelming, the increased negative emotions begins to undermine healthy coping responses, leaving people prone to adopting risky health behaviors, like heavy drinking, to cope (Meyer, 2003). These participants' accounts also demonstrated a relationship between stigma and heavy drinking, similar to the associations found between stigma and risky sexual behaviors (Lyons et al., 2019). People may resort to harmful behaviors to alleviate feelings of low self-esteem. To this point, participants recollected that they consumed alcohol to minimize their negative emotions about feeling shamed or stigmatized.

We also explored participants' perspectives on the relationship between mental health and heavy drinking by asking: "If there was a treatment that targeted drinking and your mood, what would you want to focus on first? Why?" Seventeen out of 24 participants (7/8 men; 10/16 women) wanted mental health to be the first focus, four wanted alcohol to be first (1/8 men; 3/16 women), and 3 participants (1 man, 2 women) wanted both to be addressed. In the responses that follow, participants endorsed mental health as being an important, if not primary, influence on their alcohol use:

> I think that the mental health is what drives the drinking. Obviously, some of it could be genetic, some of it could be behavior. Part of the mental health component is figuring out where the person is in order to figure out how to help, what their stressors are, how they try and cope … because I think that it's one of the reasons why… like if I could fix that issue, I feel like every other issue would be addressed. (Male, age 29)

### 3.4. How did an alcohol intervention help with anxiety and depressive symptoms?

We asked participants if and how the intervention they received in the parent clinical trial led to improvements in mental health symptoms. Eighteen of the 24 participants (6/8 men; 12/16 women) felt that the intervention helped to decrease feelings of depression and anxiety. When asked how the intervention was useful, participants said that they appreciated talking about their experiences and feelings in a nonjudgmental environment with the study therapist. The listener's neutrality made it easier to talk more openly:

> It was nice to talk to someone, like outside. My family, or my best friend, like I talk to my best friend a lot about – cause she's also Latina and she only talks to her mom, because she's the only girl. It's nice to I don't know, just talk to someone else outside and just like normalize your feelings and validate them. (Female, age 32)

Feeling accepted for their choices made participants more willing to listen to information about the potential negative effects of alcohol consumption: "I talked about how I would drink a little bit, but I didn't feel pressured, I didn't feel judged. They provided some information on it and I felt okay after that" (Male, age 29).

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

Participants said they wanted to stay in touch with the study staff after study completion and participants offered ways to do so: using technology (13 of 24; 3/8 men, 10/16 women) (e.g., check-ins via phone-based texting) was a means to receive additional support. They noted another potential advantage of using technology was that staff could check in on their patterns of use more regularly (e.g., each month, instead of the 3-month study intervals), and monitoring their own patterns of use would be helpful: "Even just on a text or phone app. Because then I can monitor why my drinking pattern is not changing as fast" (Female, age 32).

The CAMI intervention had focused on how the social context influenced stressors related to drinking. Therefore, that about half the participants (11/14; 2/8 men; 9/16 women) said that the intervention would be improved by offering information about and referrals to social services (e.g., WIC, public housing) was not surprising. They felt that having increased knowledge of the services available in their community would have bolstered the intervention's effectiveness.

> You know, I mean a phone call or two, or a text message would be fine. You know, it would help, just to check in … support services, things like that I might like to do, so it would be good. But, there's just – I think support is important through those kinds of things. (Female, age 62)

## 4. Discussion

Our primary aims were to understand participants' experiences of immigration, associations between mood and alcohol use, and perspectives on the brief intervention they had received a year earlier. Participants described their responses to the structural and social conditions of being an immigrant in the United States. Their accounts illustrate the constraints of being an immigrant and of being marginalized. We conducted our study in 2017–2018, following the 2016 U.S. presidential election (Pierce, Bolter, & Selee, 2018) when anti-immigrant political discourse and enforcement of harsh policies had created a hostile climate for immigrants. The numerous executive orders signed during that time not only discouraged immigration, they limited the rights of immigrants (Morrey, 2018). National surveys document that this climate negatively impacted the mental (Castenada, 2015; Hacker, Chu, Arsenault, & Marlin, 2012; Mora-Rios, Ortega-Ortega, & Medina-Mora, 2017) and physical health of Latinx immigrants, i.e., by increasing preterm birth rates among Latinas (Gemmill, Catalano, Alcala, Karasek, Casey, & Bruckner, 2020). Our study provides a qualitative perspective on the condition of immigrants, showing that restricted access to resources prompted feelings of exclusion or "otherness" that was in turn associated with feelings of isolation, depression, and anxiety.

Participants described their responses to structural barriers: a lack of educational supports for students who spoke a second language, difficulties accessing safety net programs and opportunities for well-paying jobs, lack of good child care, and limited reliable transportation. These critical "health resources" have been shown to support health (Morrey, 2018). Immigrants in states with more exclusionary policies (e.g., eligibility of immigrants for food assistance) had higher rates of poor mental health days than those with a less

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

exclusionary policy climate (Hacker, Arsenault, & Marlin, 2012; Hacker et al., 2011; Hatzenbueler et al., 2017).

These barriers are exclusionary because they limit full and equal participation and communicate who does/does not belong along racial/ethnic lines, i.e. structural racism (Gee & Ford, 2011). Those who hear that they are less deserving by virtue of feeling different or "othered" may internalize these negative messages and, in turn, isolate or feel ashamed and depressed. Our findings hint at such self-stigmatization processes (Viruell-Fuentes, 2012), which are associated with poor mental health and heavy drinking (Hatzenbueler, 2016; Schomerus et al., 2011). Participants' experiences of exclusion prompted symptoms of depression and anxiety and they used drinking to minimize those feelings. Stigma invalidates feelings of depression and anxiety, isolates people, and weakens the impetus to seek help and support. It also increases health risk by diminishing motivation to seek help and limiting access to needed care (Lyons et al., 2019).

In the face of these challenges, data from the parent trial highlighted the resilience that participants demonstrated. In listening to session recordings from the parent clinical trial, we noted that participants in the clinical trial placed great value on their family and community connections, on their ethnic identity, ability to care for family members, and took pride in doing one's best to improve despite difficult circumstances. These values reflect cultural strengths (i.e., *aguantarse*, i.e., the ability to withstand difficult situations [Anez et al., 2008]; or "*poner de su parte*", i.e., doing one's best to improve circumstances [Interian et al., 2010]) that can contribute to one's self-efficacy to change (Interian et al., 2010). Highlighting personal resources and strengths may counter the "self-blame" that immigrants may assume for their hardships (Castañeda et al., 2015; Falconier et al., 2016). Interventions for marginalized populations should place a greater emphasis on resilience factors that may help to mitigate internalized stigmas among these populations. Interventions to mitigate stigma should aim to dislodge the silence around mental health problems that arise from harsh immigration conditions. Anti-oppression frameworks, such as the Liberation Health Framework, can help individuals to view their problems as the result of discriminatory and oppressive policies (Buccieri et al., 2014) and not solely individually determined.

The relationship between mental health and substance use, documented internationally and in the United States (Breslau et al., 2005; Grant et al., 2004; Kingston et al., 2017; Prior et al., 2017; Sullivan et al., 2005; Vasquez et al., 2011), is important to understand because Latinxs are among the fastest growing groups entering substance use treatment programs (Guerrero et al., 2013). Depressive symptoms increase risk for premature treatment termination, so minimizing symptoms might prolong engagement in alcohol treatment for Latinx drinkers (Curran et al., 2002). Our findings also provide qualitative evidence not only for Minority Stress Theory but also for the motivational model of alcohol use, which views drinking motives as proximal factors for drinking behavior (Cooper et al., 2015; Crutzen et al., 2013); people drink because they believe that it will help them to minimize negative affect associated with stress.

Why did an alcohol intervention prompt declines in mental health symptoms? The intervention may have offered an unexpected opportunity to relieve participants of

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

psychological distress. Although participants evidenced clinically meaningful depressive and anxiety symptoms, most were not in any psychological treatment (Lee, Rosales, Colby, Martin, Cox, & Rohsenow, 2020). The intervention allowed participants to discuss their experiences of being discriminated against, stigmatized, and/or racially “othered”. Perhaps simply being invited to explore such experiences conferred psychological benefits. A recent study with African American college students showed that confronting discriminatory experiences promoted their psychological well-being (Sanchez, Himmelstein, Young, Albugja, & Garci, 2015).

More women than men talked about drinking to reduce anxiety and depression that they related to missing their families; women mentioned other types of immigration stressors that were relational in nature (e.g., losing social ties, missing family) more than did men (Sanchez et al., 2014). This finding may reflect gendered cultural norms that women should care for and nurture family, so losing family ties may be a particularly difficult challenge for women compared to men (Falconier et al., 2016; Falicov, 2014; Lee, C. S., Colby, S. M., Rohsenow, D. J., Martin, R., Rosales, R, McCallum, et al., 2019; Lee, Rosales, Colby, Martin, Cox, & Rohsenow, 2020).

Because participants stated that mental health issues influenced their alcohol use, we did not find it surprising that they preferred to prioritize mental health issues over addressing alcohol problems. Thus, providers should address mood and drinking at screening and interventions delivered during routine health visits for socially disadvantaged Latinxs (Bahorik et al., 2016; Lee, Rosales, Colby, Martin, Cox, & Rohsenow, 2020; Satre et al., 2016). Providing mental health care (that includes treatment for substance use) in an integrated setting can destigmatize help-seeking for mental health issues and lower barriers to care for Latinxs, who are more likely to seek help for their mental health issues if assistance is provided in the context of primary care (Bridges, Andrews, Villabos et al., 2014; Torrens et al., 2015).

### 4.1. Study limitations

Several limitations impact the generalizability of our findings. The study recruited participants from the northeastern United States, and participants were heavy drinkers who had completed a clinical trial to reduce alcohol use. Thus, the associations that we found between drinking and low mood may not be found among non–heavy drinking Latinxs or among Latinx individuals who live in other geographic regions. Second, we were unable to reach 26 out of 70 participants from the parent study because their phone number had been changed. We note here that the length of time between the first study contact in the parent study, and the contact for the qualitative study, could be up to two years. Thus, loss of contact may be because of the time interval. Second, participants may have been using temporary phones, so they may have changed their phone numbers. Participants were also contacted during a politically charged time, with local and federal governments applying deportations and other anti-immigrant policies; the hostile climate may have discouraged participants from staying in contact. However, due to the limited study scope, we are unable to make any conclusions about these potential explanations.

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

Future research should focus on understanding reasons for loss of contact among marginalized populations. Further, the participation rates suggest that the interview may have missed the most vulnerable people with greater structural barriers to attend the interview (e.g., farther away from the study site, no childcare, unstable housing). Future studies should make greater accommodations (e.g., providing access to phones for interviews) to ensure that such individuals are included. Finally, we were only able to analyze Spanish interviews that were translated and then coded in English. Because we were unable to code the interviews in Spanish we could not compare whether similar themes emerged in Spanish and in English. Future studies could compare interviews conducted in Spanish to interviews conducted in English to assess whether there are nuances in language that were not captured by coding an interview translated and transcribed from Spanish.

### 4.2. Conclusions and recommendations

Our alcohol intervention approach, which was to broaden patients' discussion to explorations of the social/structural world, parallels the shift from solely culturally based frameworks of health behavior to "perspectives that consider the role of structural factors in producing health inequalities among immigrants" (Viruell-Fuentes, Miranda, & Abdulrahim, 2012). Broadening the scope of alcohol interventions to address structural barriers and/or racism that Latinx immigrants encounter can alleviate their mental health symptoms. That said, individual-level interventions alone cannot overcome the harsh structural factors and structural racism that affect immigrant populations' health.

Policy interventions that combat structural racism and focus on increasing access to education and employment will help to minimize health inequities related to substance use. Other researchers have shown that it is possible to conduct multi-level interventions to reduce stigma with individuals living with HIV (Lyons et al., 2017). In the case of addiction treatment, one might train community health workers to deliver brief interventions that focus on stress and discrimination as drivers of health behavior to reduce addictive behavior; at the clinic level, providers can receive training to reduce stigma around discussing needs for mental health and substance use treatment. Oher policy interventions might increase awareness of how discrimination, including racism and anti-immigrant prejudice, can impact drinking and health. A strengths-based approach that appreciates the resiliency of marginalized communities (Lee, Rosales, Colby, Martin, Cox, & Rohsenow, 2020) provides a broader focus on social determinants and a more balanced approach that accounts for the individual and the effects of policies on behavior (Kendi, 2019).

## Acknowledgements:

Portions of this paper were presented at the annual meeting of the Research Society on Alcoholism, Minneapolis, MN, June 2019.

This study was funded by the National Institute on Alcohol Abuse and Alcoholism (Grant # R01AA021136). The terms of the award assures that the sponsors had no post-award scientific input or other influence with respect to the study's design, analysis, interpretation, or preparation of the article.

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

## References

Abraído-Lanza AF, Echeverría SE, & Flórez KR (2016). Latino immigrants, acculturation, and health: Promising new directions in research. Annual Review of Public Health, 37, 219–236. doi:10.1146/annurev-publhealth-032315-021545

Acevedo-Garcia D (2000). Residential segregation and the epidemiology of infectious diseases. Social Science & Medicine, 51(8), 1143–1161. doi:10.1016/S02779536(00)00016-2 [PubMed: 11037206]

Alegría M, Mulvaney-Day N, Torres M, Polo A, Cao Z, & Canino G (2007). Prevalence of Psychiatric Disorders Across Latino Subgroups in the United States. American Journal of Public Health, 97, 68–75. doi:10.2105/ajph.2006.087205 [PubMed: 17138910]

Ayón C (2016). Talking to Latino children about race, inequality, and discrimination: Raising families in an anti-immigrant political environment. Journal of the Society for Social Work and Research, 7(3), 449–477. doi:10.1086/686929.

Bahorik AL, Leibowitz A, Sterling SA, Travis A, Weisner C, & Satre DD (2016). The role of hazardous drinking reductions in predicting depression and anxiety symptom improvement among psychiatry patients: A longitudinal study. Journal of Affective Disorders, 206, 169–173. doi: 10.1016/j.jad.2016.07.039 [PubMed: 27475887]

Batalova J, Blizzard B, & Bolter J (2020). Frequently requested statistics on immigrants and immigration in the United States. Retrieved from Migration Policy Institute website: https://www.migrationpolicy.org/article/frequently-requested-statistics-immigrants-and-immigration-united-states

Blanco C, Morcillo C, Alegria M, Dedios MC, Fernandez-Navarro P, Regincos R, & Wang S (2013). Acculturation and drug use disorders among Hispanics in the U.S. Journal of Psychiatric Research, 47, 226–232. doi: 10.1016/j.jpsychires.2012.09.019 [PubMed: 23128062]

Borrell LN, Diez Roux AV, Jacobs DR Jr, Shea S, Jackson SA, Shrager S, & Blumenthal RS (2010). Perceived racial/ethnic discrimination, smoking and alcohol consumption in the Multi-Ethnic Study of Atherosclerosis (MESA). Preventive Medicine, 51, 307–312. doi:10.1016/j.ypmed.2010.05.017 [PubMed: 20609433]

Braun V, & Clarke V (2006) Using thematic analysis in psychology. Qualitative Research in Psychology, 3, 77–101, doi:10.1191/1478088706qp063oa

Breslau N, Schultz LR, Johnson EO, Peterson EL, & Davis GC (2005). Smoking and the risk of suicidal behavior: a prospective study of a community sample. Archives of General Psychiatry, 62(3), 328–334. doi: 10.1001/archpsyc.62.3.328 [PubMed: 15753246]

Bridges AJ, Andrews AR, Villabos BT, Pastrana FA, Cavell TA, & Gomez D (2014). Does Integrated Behavioral Health Care reducer mental health disparities for Latinos? Initial Findings. Journal of Latino/a Psychology, 2 (1), 37–53. doi: 10.1037/lat0000009

Buccieri L (2014). Working with Addictive Behavior. In Martinez DB & Fleck-Henderson A (Eds.), Social Justice in Clinical Practice: A Liberation Health Framework for Social Work (pp. 93–105). Routledge Press.

Cano MÁ, de Dios MA, Castro Y, Vaughan EL, Castillo LG, Lorenzo-Blanco EI, … Molleda LM (2015). Alcohol use severity and depressive symptoms among late adolescent Hispanics: Testing associations of acculturation and enculturation in a bicultural transaction model. Addictive Behaviors, 49, 78–82. doi:10.1016/j.addbeh.2015.06.002 [PubMed: 26092776]

Cano MÁ, Sánchez M, Trepka MJ, Dillon FR, Sheehan DM, Rojas P, Kanamori MJ, Huang H, Auf R and La Rosa M (2017). Immigration Stress and Alcohol Use Severity Among Recently Immigrated Hispanic Adults: Examining Moderating Effects of Gender, Immigration Status, and Social Support. Journal of Clinical Psychology, 73, 294–307. doi:10.1002/jclp.22330 [PubMed: 27228112]

Castañeda H, Holmes SM, Madrigal DS, Young ME, Beyeler N, & Quesada J (2015). Immigration as a social determinant of health. Annual Review of Public Health, 36, 375–392. doi:10.1146/annurev-publhealth-032013-182419

Cooper ML, Kuntsche E, Levitt A, Barber LL, & Wolf S (2015). Motivational Models of Substance Use. Oxford Handbooks Online. doi: 10.1093/oxfordhb/9780199381678.013.017

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

Corrigan PW, Sokol K.a., & Rusch N (2013). The impact of self-stigma and mutual help programs on the quality of life of people with serious mental illnesses. Community Mental Health Journal, 49(1), 1–6. doi: 10.1007/s10597-011-9445-2. [PubMed: 22038373]

Crutzen R, Kuntsche E, & Schelleman-Offermans K (2013). Drinking motives and drinking behavior over time: A full cross-lagged panel study among adults. Psychology of Addictive Behaviors, 27, 197–201. doi: 10.1037/a0029824 [PubMed: 22925011]

Curran GM, Kirchner JE, Worley M, Rookey C,& Booth BM (2002). Depressive symptomatology and early attrition from intensive outpatient substance use treatment. Journal of Behavioral Health Services and Research, 29, 138–143. doi:10.1007/BF02287700 [PubMed: 12032971]

Dreby J (2012). The burden of deportation on children on Mexican immigrant families. Journal of Marriage and family, 74(4), 829–845. doi:10.1111/j.1741-3737.2012.00989.x

Falconier MK, Huerta M, & Hendrickson E (2016). Immigration stress, exposure to traumatic life experiences, and problem drinking among first-generation immigrant Latino couples. Journal of Social and Personal Relationships, 33(4), 469–492. doi:10.1177/0265407515578825

Falicov CJ (2014). Latino families in therapy (2nd ed.). New York: Guilford Press.

Gee GC, & Ford CL 92011). Structural racism and health inequities: Old issues, new directions. Du Bois Review, 891, 115–201. doi: 10.1017/S1724058X11000130.

Grant BF, Stinson FS, Dawson DA, Chou SP, Dufour MC, Compton W, Pickering RP, & Kaplan K (2004). Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions. Archives of General Psychiatry, 61(8), 807–816. doi:10.1001/archpsyc.61.8.807 [PubMed: 15289279]

Grzywacz JG, Quandt SA, Chen H, Isom S, Kiang L, et al. (2010). Depressive symptoms among Latino farmworkers across the agricultural season: structural and situational influences. Cultural Diversity and Ethnic Minority Psychology, 16, 335–343. doi: 10.1037/a0019722. [PubMed: 20658876]

Guerrero EG, Marsh JC, Khachikian T, Amaro H, & Vega WA (2013). Disparities in Latino substance use, service use, and treatment: Implications for culturally and evidence-based interventions under health care reform. Drug and Alcohol Dependence, 133, 805–813. doi: 10.1016/j.drugalcdep.2013.07.027 [PubMed: 23953657]

Hacker K, Chu J, Leun C, Marra R, Pirie A, Brahimi M, English M, Beckman J, Acevedo-Garcia D, Marlin R (2011). The impact of immigration and customs enforcement on immigrant health: Perceptions of immigrants in Everett, Massachusetts. Social Science & Medicine,73(4), 586–594. doi: 10.1016/j.socscimed.2011.06.007 [PubMed: 21778008]

Hacker K Chu J, Arsenault L, & Marlin RP (2012). Provider's perspectives on the impact of immigration and customs enforcement (ICE) activity on immigrant health. Journal of Health Care for the Poor and Underserved, 23(2), 651–665. doi:10.1353/hpu.2012.0052. [PubMed: 22643614]

Hatzenbuehler ML (2016). Structural stigma and health inequalitites: Research evidence and implications for psychological science. American Psychologist, 71(8), 742–751. doi:10.1037/amp00000068.

Hatzenbuehler ML, Prins SJ, Flake M, Philbin M, Frazer MS, Hagen D, Hirsch J (2017). Immigration policies and mental health morbidity among Latinos: A state-level analysis. Social Science & Medicine, 174, 269–278. doi:10/1016/j.socscimed.2016.11.040.

Interian A, Ang A, Gara MA, Link BG, & Vega WA (2010). Sigma and depression treatment utilization among Latinos: Utility of four stigma measures. Psychiatric Services, 61(4), 373–379. doi: 10.1176/ps.2010.61.4.373 [PubMed: 20360276]

Interian A, Martinez I, Rios LI, Krejci J, & Guarnaccia PJ (2010). Adaptation of a motivational interviewing intervention to improve antidepressant adherence among Latinos. Cultural Diversity and Ethnic Minority Psychology, 16(2), 215–225. doi: 10.1037/a0016072 [PubMed: 20438160]

Kendi IX (2019). How to be an antiracist. New York: One World Books.

Keyes KM, Hatzenbuehler ML, & Hasin DS (2011). Stressful life experiences, alcohol consumption, and alcohol use disorders: the epidemiologic evidence for four main types of stressors. Psychopharmacology, 218, 1–17. doi:10.1007/s00213-011-2236-1 [PubMed: 21373787]

Author Manuscript Author Manuscript Author Manuscript Author Manuscript



Kingston RE, Marel C, & Mills KL (2017). A systematic review of the prevalence of comorbid mental health disorders in people presenting for substance use treatment in Australia. Drug and Alcohol Review, 36(4), 527–539. doi:10.1111/dar.12448 [PubMed: 27786426]

Lee CS, Colby SM, Magill M, Almeida J, Tavares T, & Rohsenow DJ (2016). Theory and mechanisms of behavior change in a randomized controlled trial of culturally adapted motivational interviewing for Hispanic heavy drinkers: study protocol. Contemporary Clinical Trials, 50, 193–200. 10.1016/j.cct.2016.08.013 [PubMed: 27565832]

Lee CS, Colby SM, Rohsenow DJ, Martin R, Rosales R, McCallum TT, … Cortés DE (2019). A randomized controlled trial of motivational interviewing tailored for heavy drinking Latinxs. Journal of Consulting and Clinical Psychology, 87(9), 815–830. 10.1037/ccp0000428 [PubMed: 31403817]

Lee CS, Rosales R, Colby SM, Martin R, Cox K, & Rohsenow DJ (2020). Addressing social stressors in a brief motivational intervention improves mental health symptoms for Latinx heavy drinkers. Journal of Clinical Psychology. Advance on-line publication: 29 May 2020 10.1002/jclp.22976.

Lindert J, Ehrenstein O.S. von, Priebe S, Mielck A, & Brahler E (2009). Depression and anxiety in labor migrants and refugees – a systematic review and meta-analysis. Social Science and Medicine, 69(2), 246–257. doi:10.1016/j.socscimed.2009.04.032. [PubMed: 19539414]

Lyons CE Ketende S, Diouf D, et al. (2017). Potential impact of integrated stigma mitigation interventions in improving HIV/AIDS service delivery and uptake for key populations in Senegal. Journal of Acquired Immune Deficiency Syndromes, 74(S1), S52–S59. doi: 10.1097/QAI.0000000000001209 [PubMed: 27930612]

Manning J (2017). In vivo coding. In Matthes J (Ed.), The international encyclopedia of communication research methods. New York, NY: Wiley-Blackwell. Retrieved from 10.1002/9781118901731.iecrm0270

Meyer IH (2003). Prejudice, social stress, and mental health in lesbian, gay and bisexual populations: Conceptual issues and research evidence. Psychological Bulletin, 129, 674–697. doi:10.1037/00332909.129.5.674 [PubMed: 12956539]

Mora-Rios J, Ortega-Ortega M, Medina-Mora ME (2018). Addiction-related stigma and discrimination: A qualitative study in treatment centers in Mexico City. Substance Use & Misuse, 52(5), 594–603. doi: 10.1080/10826084.2016.1245744.

Morey BN, (2018). Mechanisms by which anti-immigrant stigma exacerbates racial/ethnic health disparities. 108(4), 460–463. doi:10.2105/AJPH.2017.304266.

Mulia N, & Zemore SE (2012). Social adversity, stress, and alcohol problems: Are racial/ethnic minorities and the poor more vulnerable? Journal of Studies on Alcohol and Drugs, 73, 570–580. doi:10.15288/jsad.2012.73.570 [PubMed: 22630795]

National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism. (2005). Helping Patients Who Drink Too Much: A Clinician's Guide (Rev. ed). Bethesda, MD. Retrieved from https://www.niaaa.nih.gov/sites/default/files/publications/guide.pdf

Neale J (2016). Iterative categorization (IC): a systematic technique for analyzing qualitative data. Addiction (Abingdon, England), 111(6), 1096–1106. doi: 10.1111/add.13314

Ornelas IJ, Eng E, & Perreira KM (2011). Perceived barriers to opportunity and their relation to substance use among Latino immigrant men. Journal of Behavioral Medicine, 34, 182–191. doi:10.1007/s10865-010-9297-1 [PubMed: 20865312]

Ornelas IJ, & Perreira KM (2011). The role of migration in the development of depressive symptoms among Latino immigrant parents in the USA. Social Science & Medicine, 73, 1169–1177. doi:10.1016/j.socscimed.2011.07.002 [PubMed: 21908089]

Paulus DJ, Bakhshaie J, Lemaire C, Garza M, Ochoa-Perez M, Valdivieso J, Valdes Velasco R, Bogiazian D, Kauffman BY, Robles Z, Neighbors C Zvolensky MJ (2016). Negative Affectivity and problematic alcohol use among Latinos in Primary Care: The role of emotion dysregulation. Journal of Dual Diagnosis, 12(2), 137–147. doi:10.1080/15504263.2016.1172897 [PubMed: 27065058]

Paulus DJ, Rodriguez-Cano R, Garza M, Ochoa-Perez M, Lemaire C, Bakhshaie J, Viana AG, & Zvolensky MJ (2019). Acculturative stress and alcohol use among Latinx recruited from a primary

care clinic: Moderations by emotion dysregulation. American Journal of Orthopsychiatry, 89(5), 589–599. doi: 10.1037/ort0000378

Phinney JS, & Ong AD (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. Journal of Counseling Psychology, 54, 271–281. doi:10.1037/0022-0167.54.3.271

Pierce S, Bolter J, & Selee A (2018). US immigration policy under Trump: Deep changes and lasting impacts. Migration Policy Institute, 9. Retrieved from Migration Policy Institute Website: https://www.migrationpolicy.org/research/us-immigration-policy-trump-deep-changes-impacts

Powell JA (2008). Structural racism: building upon the insights of John Calmore. North Carolina Law Review, 86, 791–816. Retrieved from: https://scholarship.law.unc.edu/cgi/viewcontent.cgi?article=4312&context=nclr

Prior K, Mills K, Ross J, & Teesson M (2017). Substance use disorders comorbid with mood and anxiety disorders in the Australian general population. Drug and Alcohol Review, 36(3), 317–324. doi: 10.111/dar.12419. [PubMed: 27324816]

Risher K, Adaps D, Sithole B, et al. (2013). Sexual stigma and discrimination as barriers to seeking appropriate healthcare among men who have sex with men in Swaziland. Journal of the International AIDS Society, 16(Suppl 2): 18715. doi:10.7448/IAS.16.3.18715. [PubMed: 24242263]

Sanchez M, De La Rosa M, Blackson TC, Sastre F, Rojas P, Li T, & Dillon F (2014). Pre- to postimmigration alcohol use trajectories among recent Latino immigrants. Psychology of Addictive Behaviors, 28, 990–999. doi: 10.1037/a0037807 [PubMed: 25243834]

Sanchez DT, Himmelstein MS, Young DM, Albuja AF, & Garcia JA (2016). Confronting as autonomy promotion: Speaking up against discrimination and psychological well-being in racial minorities. Journal of Health Psychology, 21(9), 1999–2007. doi:10.1177/1359105315569619 [PubMed: 25694342]

Savage JE, & Mezuk B (2014). Psychosocial and contextual determinants of alcohol and drug use disorders in the National Latino and Asian American Study. Drug and Alcohol Dependence, 139, 71–78. doi:10.1016/j.drugalcdep.2014.03.01137/a0037807. [PubMed: 24742864]

Satre DD, Leibowitz A, Sterling SA, Lu Y, Travis A, & Weisner C (2016). A randomized clinical trial of Motivational Interviewing to reduce alcohol and drug use among patients with depression. Journal of Consulting and Clinical Psychology, 84(7), 571–579. doi: 10.1037/ccp0000096 [PubMed: 26985728]

Schomerus G, Corrigan PW, Klauer T, Kuwert P, Freyberger HJ, & Lucht M (2011). Self-stigma in alcohol dependence: Consequences for drinking-refusal self-efficacy. Drug and Alcohol Dependence, 114, 12–17. doi:10.1016/j.drugalcdep.2010.08.013. [PubMed: 20933344]

Sullivan LE, Fiellin DA, & O'Connor PG (2005). The prevalence and impact of alcohol problems in major depression: a systematic review. The American Journal of Medicine, 118(4), 330–341. doi:10.1016/j.amjmed.2005.01.007 [PubMed: 15808128]

Todorova ILG, Guzzardo MT, Adams WE, & Falcón LM (2015). Gratitude and longing: Meanings of health in aging for Puerto Rican adults in the mainland. Journal of Health Psychology, 20, 1602–1612. doi:10.1177/1359105313519155 [PubMed: 24496056]

Torrens M, Mestre-Pintó J-I, & Domingo-Salvany A (2015). Comorbidity of substance use and mental disorders in Europe. European Monitoring Center for Drugs and Drug Addiction. doi: 10.2810/532790

Torres L (2010). Predicting levels of Latino depression: Acculturation, acculturative stress, and coping. Cultural Diversity and Ethnic Minority Psychology, 16, 256–263. doi:10.1037/a0017357 [PubMed: 20438164]

Torres L, & Ong AD (2010). A daily diary investigation of Latino ethnic identity, discrimination, and depression. Cultural Diversity and Ethnic Minority Psychology, 16(4), 561–568. doi: 10.1037/a0020652. [PubMed: 21058819]

Williams DR, & Collins C (1995). Racial residential segregation: a fundamental cause of racial disparities in health. Public Health Reports, 116, 404–415. doi:10.1093/phr/116.5.404.



Author Manuscript Author Manuscript Author Manuscript Author Manuscript

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

Vasquez EP, Gonzalez-Guarda RM, & De Santis JP (2011). Acculturation, depression, self-esteem, and substance abuse among Hispanic men. Issues in Mental Health Nursing, 32(2), 90–97. doi: 10.3109/01612840.2010.528169 [PubMed: 21247274]

Viruell-Fuentes EA, Miranda PY, Abdulrahim S (2012). More than culture: structural racism, intersectionality theory, and immigrant health. Social Science & Medicine, 2099–2106. doi:10.1016/j.socscimed.2011.12.037. [PubMed: 22386617]

Yardley L (2000). Dilemmas in qualitative health research. Psychology & Health, 15(2), 215–228. doi:10.1080/08870440008400302

Zemore SE (2005). Re-Examining Whether and Why Acculturation Relates to Drinking Outcomes in a Rigorous, National Survey of Latinos. Alcoholism: Clinical and Experimental Research, 29, 2144–2153. doi:10.1097/01.alc.0000191775.01148.c0

Zemore SE, Karriker-Jaffe KJ, Keithly S, & Mulia N (2011). Racial prejudice and unfair treatment: interactive effects with poverty and foreign nativity on problem drinking. Journal of Studies on Alcohol and Drugs, 72, 361–370. doi:10.15288/jsad.2011.72.361 [PubMed: 21513672]

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

## Highlights

- Our qualitative study showed that restrictive policies related to immigration lead to feelings of marginalization that increase low mood and drinking to cope with low mood among a sample of immigrant Latinx heavy drinkers.
- Addiction treatments that address psychological distress and its causes can minimize health inequities for Latinxs.
- Policy interventions that focus on changing restrictive policies limiting access to education and employment and to eliminate discrimination will help to minimize health inequities related to substance use.

Author Manuscript
Author Manuscript
Author Manuscript
Author Manuscript

**Table 1.**

Overview of questions used to guide the semi-structured interviews.

| SEQUENCE | OPENING QUESTION AND ADDITIONAL OPTIONAL PROMPTS |
|---|---|
| QUESTION 1 | Can you tell me a little about how you/your family immigrated to the United States? |
| | How has it gone here? |
| | What has gone well? |
| | What has been unexpected/challenging? |
| | How, if at all, has your immigration experience/coming to the U.S., influenced your mental health? |
| QUESTION 2 | What symptoms do you link with being anxious? |
| QUESTION 3 | What symptoms do you link with being depressed? |
| QUESTION 4 | What are some reasons that make you feel anxious? |
| QUESTION 5 | What are some reasons that make you feel depressed? |
| QUESTION 6 | What would help you to feel less anxious? |
| QUESTION 7 | What would help you to feel less depressed? |
| QUESTION 8 | Remember the CAMI interview you had with us? |
| | If you can recall, what, if anything, about the interview helped you feel less anxious/depressed after the interview (i.e., person asked me about this, or listened to me about that, etc.)? |
| QUESTION 9 | Have you reduced your drinking the last time we saw you? |
| | How are you doing that? |
| | What might encourage you to try? What supports would you need to overcome the barriers? |
| QUESTION 10 | What suggestions do you have to improve the interview you did with us? (can suggest: phone-based texting, job training, physical activity, social support, being connected to services such as job training, WIC or food stamp programs, housing services, etc.). |
| QUESTION 11 | If there was a treatment that targeted drinking and your mood, what would you want to focus on FIRST? Why? |
| | Drinking, Mental health, or address them both together? |