

1 **TITLE:**

2 Understanding Social and Cultural Contexts of Alcohol Misuse in Mexican-Origin Hispanic Men

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38 **RUNNING HEAD:** Alcohol Misuse in Hispanic Men

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47 **ABSTRACT**

48  
49 Evidence suggests that Hispanic and non-Hispanic white men (NHW) have comparable  
50 prevalence rates of alcohol use. However, Hispanic men consistently have higher prevalence  
51 rates of alcohol misuse compared to NHW men. Consequently, Hispanic men experience  
52 disproportionate levels of adverse health consequences of alcohol misuse when compared to  
53 NHW men. The aim of this study was to explore Hispanic male perspectives and opinions  
54 regarding alcohol use patterns that may lead to disparate rates of alcohol misuse in Hispanic  
55 males. Demographic data were collected with questionnaires. Twenty semi-structured one-on-  
56 one interviews were completed in English and Spanish with Mexican-origin Hispanic men (age:  
57  $44.6 \pm 11.3$  yrs.). A thematic analysis was conducted using a hybrid deductive-inductive strategy  
58 with an a priori codebook supplemented with iterative analysis of transcripts. Results suggest  
59 that alcohol misuse patterns in Hispanic males are influenced by; an interaction between alcohol-  
60 related social norms and learned expressions of masculinity; a lack of knowledge of the alcohol-  
61 related health risks that further perpetuate the normalization of alcohol misuse; and expressions  
62 of masculinity and adaptive coping that lead to alcohol misuse as an escape from life stressors.  
63 Given the rapid expansion of the Hispanic population in the U.S., and the disparate consequences  
64 of alcohol misuse in this population, it is imperative to consider the complex and often  
65 compounded impact of sociocultural norms and the social context on misuse-related behaviors.  
66 Viable prevention and treatment strategies should be addressed through multicomponent,  
67 community-level strategies that more comprehensively address the complexities of alcohol  
68 misuse in this population.

69  
70 **KEY WORDS**

71 Hispanic, Men's Health, Alcohol Misuse, Masculinity, Cultural Competence, Interviews

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81 **INTRODUCTION**

82 Alcohol misuse encompasses a spectrum of health behaviors including risky (excessive)  
83 alcohol use, alcohol abuse, or alcohol dependence. According to current dietary guidelines,  
84 moderate drinking is up to 1 drink per day for women and up to 2 drinks per day for men  
85 (USDHHS, 2017). The National Institute of Alcohol Abuse and Alcoholism defines risky alcohol  
86 use for men as binge drinking (4 or more drinks in about 2 hours), drinking more than 4 drinks  
87 on any given day, or more than 14 drinks in any given week (NIAAA, 2004). Evidence suggests  
88 that Hispanic and non-Hispanic white men (NHW) have comparable prevalence rates of  
89 moderate alcohol use (Caetano, Baruah, Ramisetty-Mikler, & Ebama, 2010; CSBHSQ, 2015;  
90 SAMHSA, 2014). However, Hispanic men binge drink, and consume higher volumes with more  
91 frequency than their NHW counterparts (SAMHSA, 2013). This may explain, in part, why  
92 Hispanic men experience disproportionate levels of adverse health and social consequences of  
93 alcohol misuse when compared to NHW men (Caetano, 2003). Hispanic men present alcoholic  
94 steatosis, hepatitis, and cirrhosis at significantly younger ages than NHW men (Levy, Catana,  
95 Durbin-Johnson, Halsted, & Medici, 2015). Further, Hispanic men have higher incidence rates of  
96 alcohol-related intimate partner violence (Caetano, Galvan, Aguirre-Molina, & Molina, 2001;  
97 Morales-Aleman et al., 2014), and face disproportionate alcohol use-related contact with the  
98 criminal justice system (Iguchi et al., 2002).

99 The initiation, duration, and cessation of alcohol in men may be influenced by  
100 sociocultural and gender-bound behavior norms (Castro & Alarcón, 2002; Guerrero, Marsh, Cao,  
101 Shin, & Andrews, 2014; Prado, Szapocznik, Maldonado-Molina, Schwartz, & Pantin, 2008;  
102 Zemore, 2005). Adherence to behavioral traits perceived to be masculine such as self-reliance,  
103 expressions of strength, and emotional disconnectedness can result in maladaptive life stressor

104 coping behaviors causing adverse effects on physical and emotional wellbeing (Courtenay,  
105 2000). Research suggests that some Hispanic men may closely adhere to masculine ideologies  
106 (*traditional machismo*) that are exaggerated and can be problematic (Arciniega, Anderson,  
107 Tovar-Blank, & Tracey, 2008; Torres, Solberg, & Carlstrom, 2002). Adherence to machismo has  
108 been associated with higher levels of depression and stress (Fragoso & Kashubeck, 2000) as well  
109 as alcohol use and misuse (Liang, Salcedo, & Miller, 2011). Scholars have posited that Hispanic  
110 masculinity exists on two distinct spectrums and that the notion of *caballerismo* (in reference to  
111 a caballero, Spanish for horseman) the dual counterpart of *machismo* and it characterizes men as  
112 nurturing, noble, socially accountable, and familial; which can have a health-protective influence  
113 (Arciniega, 2008). Nevertheless, the pathways by which masculinity-driven traits influence  
114 behaviors that lead to poor consumption outcomes are inadequately understood (Bernal, Trimble,  
115 Burlew, & Leong, 2002; Castro & Alarcón, 2002; Guerrero et al., 2014; Prado et al., 2008).  
116 Important but overlooked interactions may exist between sociocultural norms and individual  
117 *social contexts* such as differential exposures to life stressors and access to social, educational,  
118 and economic resources (Krieger & Moss, 1995). However, empirical relationship of these  
119 relationships is lacking. Thus, under a Socio-Ecological Perspective as a heuristic framework for  
120 understanding this phenomenology, examining the notions of Traditional Machismo and  
121 Caballerismo can provide mapping to better identifying sources of influence of alcohol misuse-  
122 related behaviors in Mexican origin Hispanic men.

123       Hispanics are a broad and heterogenous population with many different and varying  
124 subgroups. Recent estimates indicate that most Hispanics are of Mexican origin (63.3%),  
125 followed by Puerto Rican (9.5%), Central American (6.8%), South American (4.9%), Cuban  
126 (3.7%), other Hispanic or Latino (3.4%), and Dominican (3.3%) (Flores, 2017). Evidence

127 examining differences in alcohol consumption among Hispanic subgroups suggests that Puerto  
128 Rican and Mexican origin men reported higher drinking rates, weekly consumption, and binge  
129 drinking than all other Hispanic groups (Ramisetty-Mikler, Caetano, Rodriguez, 2010).  
130 Moreover, while it is evident that detrimental hypermasculine norms and behaviors exist across  
131 races and ethnicities, it is important to assess how these norms intersect with the unique  
132 sociocultural and environmental contexts of Mexican origin men. Consequently, we aimed to  
133 learn opinions and perspectives related to; a) how Mexican origin Hispanic men define alcohol  
134 misuse and abuse b) how they define their masculine identity, and c) how notions of masculinity  
135 influence alcohol misuse related behaviors.

136

## 137 **METHOD**

### 138 *PARTICIPANTS*

139 Participants were passively recruited via flyers at community health and neighborhood  
140 centers in Tucson, AZ where 42.1% of the population are Hispanic. Active recruitment occurred  
141 via tabling at community agencies, local employers, and outdoor marketplaces. Recruitment,  
142 interviews, and simultaneous analysis took place over the course of three months (Feb-Mar) in  
143 the spring of 2017. Eligible participants had to be between the ages of 21-64 years, self-  
144 identified as Hispanic and male, able to provide informed consent and disclose that they had ever  
145 consumed alcohol or drugs. All participants provided written informed consent prior to  
146 participation. All study materials and protocols were approved by the University of Arizona's  
147 Human Subjects Protection Program Internal Review Board.

148

### 149 *DATA COLLECTION*

150 A semi-structured interview guide (**Table 1**) was used to elicit perspectives of alcohol  
151 use and misuse. A bilingual, bicultural Hispanic male member of the research team conducted all  
152 interviews in the participant’s preferred language. Participants also completed a questionnaire  
153 including a) demographics (age, Hispanic heritage, schooling, employment, income, marital  
154 status, and time lived in the U.S); b) *machismo/caballerismo* (using the *Machismo Caballerismo*  
155 scale ‘TMCS’, a 20-item self-report instrument designed to assess the extent to which men  
156 identify with two different constructs of machismo; *traditional machismo* and  
157 *caballerismo*,(Arciniega et al., 2008)) – there was no relationship between subscales in this study  
158 but the Cronbach’s alphas for *traditional machismo* and *caballerismo* were .87 and .81  
159 respectively; c) alcohol use (past 12-month alcohol consumption frequency and quantity); and d)  
160 acculturation (Brief Acculturation Scale for Hispanics, a language use-based scale to indicate  
161 level of acculturation (Mills, Malcarne, Fox, & Sadler, 2014)) – Cronbach’s alpha was .80. The  
162 BASH and the TMCS have been tested for validity and reliability in our target population  
163 (Arciniega et al., 2008; Mills et al., 2014). All quantitative measures were collected to better  
164 characterize our sample and to provide each participant with attributes that would enhance our  
165 qualitative analysis.

166

#### 167 *DATA ANALYSIS*

168 All interviews were audio-recorded and transcribed verbatim in their respective  
169 languages by trained staff. We used thematic analysis to identify, analyze, and report patterns  
170 within our data (Braun & Clarke, 2006). Data analysis began with a deductive process for which  
171 the research team used a preliminary codebook developed based on the topics included in the  
172 interview guide. The preliminary codebook used *a priori* themes based on the topics included in

173 the interview guide and on the objectives of the analysis. The codebook was then supplemented  
174 with broad themes and codes that emerged during iterative reading of the data transcripts. The  
175 codebook was finalized during a series of ongoing discussions and iterative reading of each  
176 transcript. Four transcripts were selected at random and were double coded by two members of  
177 the research staff to ensure fidelity of coding strategies; remaining transcripts were coded by a  
178 single member of the research team, however, 10% of each transcript was reviewed by two  
179 coding members of the research team to diminish the probability of analytic drift by a single  
180 analyst. The authors ensured that all salient themes were adequately saturated before recruitment  
181 completion Saturation was derived by the diminishing of variation in the transcribed and  
182 subsequently coded data (Patton, 1999). NVivo 13 (QSR International, Cambridge, MA) was  
183 used to facilitate data organization, management, and analysis.

184

## 185 **RESULTS**

### 186 *PARTICIPANT DEMOGRAPHIC CHARACTERISTICS*

187 Recruitment of potential participants was ongoing and was terminated once saturation  
188 was reached leading to a total of 20 participants. A total of 73 men were interested in  
189 participating and provided contact information to study staff. We were able to reach 47 of these  
190 men over the phone, of which 35 continued to be interested in participating in the study. Of these  
191 35 men screened 30 were deemed eligible and were scheduled for interviews. Of the 30 eligible  
192 men 4 were unable to attend or reschedule their interviews due to family/employment conflicts  
193 and 6 others were lost to follow-up. Semi structured interviews lasted an average of 43 minutes.  
194 Of this sample, 10 conducted the interview in Spanish and 10 in English. Mean age of  
195 participants was 44. 6 (range: 23 to 64; *SD* = 11.3). All men were of Mexican-origin, having

196 been born in Mexico, or were the children or grandchildren of Mexican-born  
197 parents/grandparents. Fifteen (75%) participants were born outside the United States and  
198 reported living in the United States a mean of 29.8 years (range: 6 to 57;  $SD = 15.4$ ). All  
199 participants were currently employed, and 50% reported an annual income below \$29,999. Mean  
200 *traditional machismo* scale and *caballerismo* scale scores were 2.7 ( $SD = 0.69$ ) and 5.8 ( $SD =$   
201 0.66) respectively; meaning that our sample showed low agreement with *traditional machismo*-  
202 related traits and high agreement with *caballerismo*-related traits. Mean Brief Acculturation  
203 Scale for Hispanics score was 2.6 (range: 1 to 4.75;  $SD = 1.1$ ) and ranged from 1 to 4.75  
204 suggesting acculturation was *moderate* for our sample (Norris, Ford, & Bova, 1996). Current  
205 alcohol use was reported by 17 (85%) of our participants, 6 (35%) drank at least once a week, 5  
206 (29%) were consuming between 9-15 drinks per drinking occasion, and 4 (23%) reported binge  
207 drinking at least once a month.

208

209

## 210 *QUALITATIVE THEMES*

211 We present the qualitative results of this study organized into four broad themes; a)  
212 *understandings of alcohol misuse*, b) *Machismo at the root*, c) *The Ubiquity of use*, and d)  
213 *Alcohol use as an Escape*. Excerpt quotes are included in **Table 2** to illustrate the following  
214 themes and subthemes in the words of the participants. Additionally, some of the sub-themes are  
215 named after direct quotes because of how illustrative these were in representing the given theme;  
216 demographic attributes also are provided along with quotes to characterize the participant.

217

218

219 **UNDERSTANDINGS OF ALCOHOL MISUSE:**

220 Defining Misuse from Direct Experience

221           When recounting alcohol use and misuse parameters participants defined alcohol misuse  
222 as the negative consequences that arise from alcohol misuse and not specific drinking  
223 parameters. Unprompted, participants shared personal and familial experiences with the  
224 consequences of alcohol use in order to illustrate what they knew about the implications of  
225 alcohol misuse. The men spoke about vomiting blood, cirrhosis, losing work, sabotaging familial  
226 relationships, and getting in trouble with the law. However, when some participants were probed  
227 about their self-reported alcohol use, they did not perceive their drinking as risky, even when  
228 their consumption patterns exceeded moderate drinking limits.

229

230 **MACHISMO AT THE ROOT:**

231 Defining Masculinity

232           Participants reported contradictory views on the *ideal* characteristics of men versus the  
233 learned societal expectations they perceived. Men reported that men should be hard working,  
234 level-headed, loving of their family, respectful of their spouses, caring for their elders, and good  
235 providers for their family. Nevertheless, participants shared that men are taught to be *machos*;  
236 they must be strong, hard-working, in charge, good drinkers, and make money. Some men  
237 explained that while being macho carries a negative connotation, *machismo* perpetuates gender  
238 roles that are followed by most men to some degree. Men reported that hyper-masculine ideals  
239 can be more pervasive in rural and disadvantaged communities, attributing this to a lack of  
240 education and exposure to more progressive ideals of expressing masculinity. Important to note;  
241 it was evident that men who were born in the U.S. or had spent a considerable amount of their

242 life in the U.S. were more likely to speak about *machismo*-related concepts from a more distal  
243 perspective. There were mentions about how *machismo* permeated culture in Mexico but that  
244 having grown up in the U.S., some men were able to escape a *macho*-centered upbringing.

245

246 “Tome, Para Hacerse Hombre” (Drink, so you can become a man); (Male, 44, Born in Mexico)

247 Some men reported they felt fortunate not to have been raised in a household where  
248 hyper masculine behavior was an expectation but acknowledged pervasiveness of *machismo*.  
249 There was a shared perception that alcohol consumption, along with a multitude of health risk  
250 behaviors are directly related to beliefs and expressions of masculinity. The birth of health  
251 jeopardizing consumption patterns stemmed from experiences of being handed drinks when they  
252 were very young and being expected to drink in order to show their worth as boys. The men  
253 linked this to developing alcohol tolerance at a young age to keep up with older men who drank a  
254 lot. Finally, participants added that men who abstain from drinking are stigmatized as *santos*  
255 (saints), and looked to as lesser men in certain circles, which can make it very difficult to abstain  
256 from alcohol or to drink moderately.

257

258 “Si el Hombre Gana el Hombre Manda” (If the man earns, the man calls the shots) (Male, 52,

259 Born in Mexico):

260 Participants shared that it can sometimes be difficult for men to internalize the idea that  
261 they have a problem with alcohol when gender roles are met. Men explained that many believe  
262 that as long as their family is provided for, they perceive themselves as functional members of  
263 their families, even when alcohol misuse may be taking a toll on their health, and at times  
264 ignoring family pleads to make behavior changes. Because of this, problematizing alcohol

265 misuse is not easy. Participants added that some men do not realize they have a problem until  
266 they face the grave consequences of their alcohol misuse, such as a DUI conviction, a serious  
267 health problem, or job loss, which ultimately prevents them from providing for their families.

268

## 269 **THE UBIQUITY OF USE:**

### 270 Consumption-Centered Marketing

271 Participants alluded to culture-specific normalization of overconsumption that facilitates  
272 the crossing of the use/misuse boundary, particularly for men. Cultural expectations of Hispanic  
273 men to overconsume are pervasive, they are often exacerbated by social pressures. Surprisingly,  
274 many participants commented on how the alcohol industry may take advantage of cultural  
275 vulnerabilities to sell alcohol to Hispanic men in the U.S. The men shared they felt constantly  
276 surrounded by alcohol advertisements.

277

### 278 Lack of Knowledge Preserves Norms

279 There were beliefs that the existing normalization of alcohol misuse was influenced by a  
280 lack of knowledge of risky consumption parameters. Specifically, the men explained that most  
281 men are not aware of how damaging their own consumption may be to their health. Some men  
282 spoke about this relationship existing in a cycle, explaining that lack of knowledge increased the  
283 perpetuation of normalization which then suppresses negative perceptions of alcohol. It was  
284 believed that if Hispanic men understood the paths to the physical and social damage that alcohol  
285 misuse can cause, maybe they would be more likely to develop a healthier relationship with  
286 alcohol.

287

288 **ALCOHOL USE AS AN ESCAPE:**

289 *Coping Rooted in Traditional Machismo*

290 Another perceived exacerbation of alcohol misuse was the idea that *machismo* may lead  
291 to alcohol misuse as an alternative coping strategy for Hispanic men. Participants shared that  
292 alcohol use as a coping mechanism is taught and encouraged from a young age. The men  
293 explained that men often do not learn how to cope with life stressors, which can lead to use of  
294 alcohol as a socially acceptable coping strategy.

295

296 *Looking for a Future and Finding Alcohol Misuse*

297 Several men recounted when they came to the U.S. and how their drinking habits  
298 changed over time. They claimed alcohol use was moderate back in Mexico and never perceived  
299 it to be a problem. However, they spoke about falling into social circles where alcohol misuse  
300 was highly encouraged after they migrated to the U.S. There were stories about how they lived  
301 away from their families with other men who they worked with. Upon leaving work the men  
302 would all drink together into the late hours of the night as an escape and then go back to work the  
303 next morning. There was also agreement that their strenuous work was related to their  
304 consumption patterns. They added that the compounded stress of working long and physically  
305 exhausting days in the hot sun while making very little money can lead them to drink the  
306 physical pain away.

307

308 **DISCUSSION**

309 The purpose of this study was to explore Hispanic male perspectives and opinions  
310 regarding alcohol use and misuse patterns that may lead to disparate rates of alcohol misuse in

311 Hispanic males compared to NHW males. Our findings show that alcohol misuse patterns in  
312 Hispanic males are influenced by a) an intersection between alcohol-related social norms and  
313 learned expressions of masculinity, b) a lack of knowledge of the alcohol-related health risks that  
314 further perpetuates the normalization of alcohol misuse, and c) expressions of masculinity and  
315 successive coping mechanisms that may lead to alcohol misuse as an escape.

316         While largely stereotypical in nature, the *macho* notion within traditional machismo, is  
317 generally a negative hypermasculine view of Hispanic men that characterizes them as aggressive,  
318 violent, antifeminine and detrimental to health. *Caballerismo* characterizes men as family  
319 oriented, emotionally aware, socially responsible and health protective. The men in our sample  
320 had higher *caballerismo* than *macho* attitudes as reported in their TMCS scores, which nearly  
321 mirrored scores from work with a parallel sample of men (Glass & Owen, 2010). However,  
322 stratifying on TMCS scores did not result in response congruency from participants in the  
323 present study, which may be due to an expected lack of variability in these scores in our sample.  
324 Nevertheless, qualitative findings illuminate an intersection between the cultural normalization  
325 of alcohol misuse and machismo-driven expressions of masculinity. Some men may be exposed  
326 to environments where alcohol misuse is highly normalized and encouraged. This situation is  
327 compounded by machismo driven expressions of masculinity which can drive men to express  
328 their masculinities in unhealthy ways, including the recreational (e.g., social gatherings) and non-  
329 recreational (e.g., drinking to alleviate stress after work) overconsumption of alcohol. Our  
330 findings are congruent with research suggesting the presence of strong social pressures exerted  
331 on Hispanic men to engage in social drinking with other men makes abstinence an unrealistic  
332 goal (Fiorentino, Berger, & Ramirez, 2007). Fiorentino et al.'s (2007) findings also suggested  
333 that men use alcohol in adherence to the expectations of men to trying to live up to the *macho*

334 image. The ability to consume large amounts of alcohol is intrinsically considered a favorable  
335 macho trait. The normalization of misuse compounded by the overconsumption as an encouraged  
336 expression of masculinity can create an environment where the expectation to misuse alcohol is  
337 inescapable.

338           Complicating the influence rooted in the expectations of masculine ideals, our findings  
339 showing that Hispanic men feel especially targeted by alcohol and liquor marketing. This  
340 capitalizes on the existing alcohol-related vulnerabilities and is congruent with evidence  
341 suggesting that some segments of the U.S. population are differentially exposed to a wide variety  
342 of alcohol and liquor marketing (Sudhinaraset, Wigglesworth, & Takeuchi, 2016). Studies  
343 suggest that African American, Hispanic, and American Indian communities, specifically, are  
344 targeted by complex focused marketing strategies (Maria Luisa Alaniz & Wilkes, 1998).  
345 Targeted strategies can create positive beliefs about drinking, as well as expand environments  
346 where alcohol use is socially acceptable and encouraged (Maria Luisa Alaniz & Wilkes, 1998;  
347 McKee, Jones-Webb, Hannan, & Pham, 2011). These factors can influence the initiation of  
348 drinking, increase overall consumption and frequency of alcohol misuse (Tanski et al., 2015).  
349 Researchers argue that alcohol marketing strategies use symbols comprising cultural artifacts,  
350 maps of home countries, and widespread use of the Spanish language as a significant attempt to  
351 refigure Hispanic culture into a culture of consumption (Maria L Alaniz & Wilkes, 1995). While  
352 our participants reported the burden of high expectations for men to drink excessively, there is  
353 evidence of how the alcohol industry in the U.S. plays a significant role in manipulating normed  
354 alcohol use patterns and expectations, which can have detrimental consequences for Hispanic  
355 male consumers.

356 Our findings suggest that there may be a cyclical relationship between lack of knowledge  
357 that results in alcohol use which further perpetuates the normalization of alcohol misuse.  
358 Research suggests that increased knowledge of alcohol-related health risks decreases the  
359 frequency of alcohol misuse incidence (Bertholet, Daeppen, Wietlisbach, Fleming, & Burnand,  
360 2005), particularly when the attainment of knowledge is responsive to individual consumption  
361 patterns. There is support for social norm marketing campaigns to reduce alcohol consumption;  
362 however, most of the empirical data on the matter is focused largely on NHW and college aged  
363 populations (DeJong et al., 2006). An increase in individual knowledge of the alcohol quantity  
364 parameters of moderate use, misuse, and dependence, may better equip Hispanic men to gauge  
365 their own consumption patterns and how they may be affected in the long term, which can result  
366 in an increase in protective behaviors.

367 Participants suggested that maladaptive coping may be entrenched in culturally  
368 acceptable expressions of masculinity and in the lack of learned healthy coping behaviors.  
369 Consequently, Hispanic men's coping strategies may be underdeveloped due to persistent  
370 suppression of male expression of emotions that exists in Mexican culture; alcohol is considered  
371 an acceptable and encouraged coping mechanism for Hispanic men. For instance, an interview-  
372 based study found that lack of choices for work, lack of opportunities for social advancement,  
373 fear of being deported and grieving the distance from family members were important  
374 determinants of suffering that often drove Hispanic men to drink (Holmes, 2006). As such, there  
375 has been interest in the intersected influences of the social context of Hispanics including levels  
376 of perceived discrimination, socioeconomic disadvantage, historical trauma, context of  
377 migration, and immigration status. For example, research indicates that Hispanic migrant  
378 workers in the U.S. engage in heavy alcohol use and binge drinking at higher rates than their

379 NHW counterparts; a trend that has been attributed to instability and unsafe work environments  
380 (Arcury et al., 2016). Evidence suggests that the stress of living or working in spaces defined by  
381 deprivation can be psychologically distressing and can lead people to consume alcohol as a  
382 means of escape (Hill & Angel, 2005).

383

#### 384 *Limitations*

385 In part, limitations arise from the transferability of the data generated in this study to  
386 other study populations and women given the thin and very *purposeful* sample size. Additionally,  
387 participants might have felt embarrassed fully disclosing their opinions and perspectives with the  
388 member of the research team that conducted the study. Further, while issues of masculinity were  
389 discussed, our work examined gender as a binary measure. As such, our work is not  
390 representative of a full spectrum of masculinity and gender expressions and their influence on  
391 alcohol use patterns, particularly the lived experiences of the Hispanic LGBTQ community.  
392 Despite these limitations, our study offers valuable insight about an important segment of the  
393 Mexican-origin, cisgender, heterosexual male population in southern Arizona.

394

#### 395 **CONCLUSION**

396 The Hispanic population in the U.S. continues to expand along with the growing costs of  
397 alcohol-related health and social problems. As such, it is imperative to find viable prevention and  
398 treatment solutions. While limited in scope, we believe the knowledge shared by the men in our  
399 sample can be used as a valuable insight to better inform intervention strategies with Mexican-  
400 origin men. Careful consideration of the sociocultural intersections mentioned above might allow  
401 practitioners and researchers alike to have a better grasp on nuances that may influence alcohol

402 consumptions patterns in this population. Our work highlights the important need for responsive  
403 prevention and treatment efforts to consider the potential intersections that exist between  
404 alcohol-related social norms and learned expressions of masculinity when formulating  
405 interventions for Mexican-origin men. Inclusively, these findings point to the need to improve  
406 the ways in which we disseminate information about alcohol use parameters and the  
407 consequences of misuse to these populations in ways that increase receptiveness on information  
408 in this community. Further research is needed to identify parallels and differences in how these  
409 findings compare to other Hispanic populations.

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425 **REFERENCES**

426

427 Substance Abuse and Mental Health Services Administration. (2013). Results from the 2012

428 National Survey on Drug Use and Health: Summary of national findings. In *NSDUH*

429 *Series H-46, HHS Publication No.(SMA) 13-4795: Substance Abuse and Mental Health*

430 *Services Administration Rockville, MD.*

431 Alaniz, M. L., & Wilkes, C. (1995). Reinterpreting Latino culture in the commodity form: The

432 case of alcohol advertising in the Mexican American community. *Hispanic Journal of*

433 *Behavioral Sciences, 17(4), 430-451.*

434 Alaniz, M. L., & Wilkes, C. (1998). Pro-drinking messages and message environments for young

435 adults: the case of alcohol industry advertising in African American, Latino, and Native

436 American communities. *Journal of Public Health Policy, 447-472.*

437 Arciniega, G. M., Anderson, T. C., Tovar-Blank, Z. G., & Tracey, T. J. (2008). Toward a fuller

438 conception of Machismo: Development of a traditional Machismo and Caballerismo

439 Scale. *Journal of Counseling Psychology, 55(1), 19.*

440 Arcury, T. A., Talton, J. W., Summers, P., Chen, H., Laurienti, P. J., & Quandt, S. A. (2016).

441 Alcohol consumption and risk for dependence among male Latino migrant farmworkers

442 compared to Latino nonfarmworkers in North Carolina. *Alcoholism: Clinical and*

443 *Experimental Research, 40(2), 377-384. doi:10.1111/acer.12969*

444 Bernal, G., Trimble, J. E., Burlew, A. K., & Leong, F. T. (2002). *Handbook of racial and ethnic*

445 *minority psychology: Sage Publications.*

446 Bertholet, N., Daeppen, J.-B., Wietlisbach, V., Fleming, M., & Burnand, B. (2005). Reduction of  
447 alcohol consumption by brief alcohol intervention in primary care: systematic review and  
448 meta-analysis. *Archives of internal medicine*, *165*(9), 986-995.

449 Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in*  
450 *psychology*, *3*(2), 77-101.

451 Caetano, R. (2003). Alcohol-related health disparities and treatment- related epidemiological  
452 findings among Whites, Blacks, and Hispanics in the United States. *Alcoholism: Clinical*  
453 *and Experimental Research*, *27*(8), 1337-1339.  
454 doi:10.1097/01.ALC.0000080342.05229.86

455 Caetano, R., Baruah, J., Ramisetty-Mikler, S., & Ebama, M. S. (2010). Sociodemographic  
456 predictors of pattern and volume of alcohol consumption across Hispanics, Blacks, and  
457 Whites: 10-year trend (1992–2002). *Alcoholism: Clinical and Experimental Research*,  
458 *34*(10), 1782-1792.

459 Caetano, R., Galvan, F. H., Aguirre-Molina, M., & Molina, C. (2001). Alcohol use and alcohol-  
460 related problems among Latinos in the United States. *Health issues in the Latino*  
461 *community*, 383-412.

462 Castro, F. G., & Alarcón, E. H. (2002). Integrating cultural variables into drug abuse prevention  
463 and treatment with racial/ethnic minorities. *Journal of Drug Issues*, *32*(3), 783-810.

464 Courtenay, W. H. (2000). Constructions of masculinity and their influence on men's well-being:  
465 a theory of gender and health. *Social Science & Medicine*, *50*(10), 1385-1401.

466 CSBHSQ, C. f. B. H. S. a. Q. (2015). *Behavioral health trends in the United States: results from*  
467 *the 2014 National Survey on Drug Use and Health*.

468 DeJong, W., Schneider, S. K., Towvim, L. G., Murphy, M. J., Doerr, E. E., Simonsen, N. R., . . .  
469 Scribner, R. A. (2006). A multisite randomized trial of social norms marketing campaigns  
470 to reduce college student drinking. *Journal of studies on alcohol*, 67(6), 868-879.

471 Fiorentino, D. D., Berger, D. E., & Ramirez, J. R. (2007). Drinking and driving among high-risk  
472 young Mexican-American men. *Accident Analysis & Prevention*, 39(1), 16-21.

473  
474 Flores, A. (2017). How the US Hispanic population is changing. *Washington, DC: Pew Research*  
475 *Center*.

476  
477 Fragoso, J. M., & Kashubeck, S. (2000). Machismo, gender role conflict, and mental health in  
478 Mexican American men. *Psychology of Men & Masculinity*, 1(2), 87.

479 Guerrero, E. G., Marsh, J. C., Cao, D., Shin, H.-C., & Andrews, C. (2014). Gender disparities in  
480 utilization and outcome of comprehensive substance abuse treatment among racial/ethnic  
481 groups. *J Subst Abuse Treat*, 46(5), 584-591.

482 Hill, T. D., & Angel, R. J. (2005). Neighborhood disorder, psychological distress, and heavy  
483 drinking. *Social Science & Medicine*, 61(5), 965-975.  
484 doi:10.1016/j.socscimed.2004.12.027

485 Holmes, S. M. (2006). An ethnographic study of the social context of migrant health in the  
486 United States. *PLoS Med*, 3(10), e448.

487 Iguchi, M. Y., London, J. A., Forge, N. G., Hickman, L., Fain, T., & Riehm, K. (2002).  
488 Elements of well-being affected by criminalizing the drug user. *Public Health Reports*,  
489 117(Suppl 1), S146.

490 Krieger, N., & Moss, N. (1995). Measuring social inequalities in health: Report of a National  
491 Institutes of Health conference. *Public Health Rep*, 119, 302-305.

492 Levy, R. E., Catana, A. M., Durbin-Johnson, B., Halsted, C. H., & Medici, V. (2015). Ethnic  
493 differences in presentation and severity of alcoholic liver disease. *Alcoholism: Clinical  
494 and Experimental Research, 39*(3), 566-574. doi:10.1111/acer.12660

495 Liang, C. T., Salcedo, J., & Miller, H. A. (2011). Perceived racism, masculinity ideologies, and  
496 gender role conflict among Latino men. *Psychology of Men & Masculinity, 12*(3), 201.

497 McKee, P., Jones-Webb, R., Hannan, P., & Pham, L. (2011). Malt liquor marketing in inner  
498 cities: the role of neighborhood racial composition. *Journal of Ethnicity in Substance  
499 Abuse, 10*(1), 24-38.

500 Mills, S. D., Malcarne, V. L., Fox, R. S., & Sadler, G. R. (2014). Psychometric evaluation of the  
501 brief acculturation scale for Hispanics. *Hispanic Journal of Behavioral Sciences, 36*(2),  
502 164-174.

503 Morales-Aleman, M. M., Hageman, K., Gaul, Z. J., Le, B., Paz-Bailey, G., & Sutton, M. Y.  
504 (2014). Intimate Partner Violence and Human Immunodeficiency Virus Risk Among  
505 Black and Hispanic Women. *American journal of preventive medicine, 47*(6), 689-702.  
506 doi:10.1016/j.amepre.2014.08.007

507 National Institute on Alcohol Abuse and Alcoholism. (2004). NIAAA council approves  
508 definition of binge drinking. *NIAAA newsletter, 3*(3).  
509

510 Norris, A. E., Ford, K., & Bova, C. A. (1996). Psychometrics of a brief acculturation scale for  
511 Hispanics in a probability sample of urban Hispanic adolescents and young adults.  
512 *Hispanic Journal of Behavioral Sciences, 18*(1), 29-38. .

513 Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Serv  
514 Res, 34*(5 Pt 2), 1189-1208.

515 Prado, G., Szapocznik, J., Maldonado-Molina, M. M., Schwartz, S. J., & Pantin, H. (2008). Drug  
516 use/abuse prevalence, etiology, prevention, and treatment in Hispanic adolescents: A  
517 cultural perspective. *Journal of Drug Issues*, 38(1), 5-36.

518 Ramisetty-Mikler, S., Caetano, R., & Rodriguez, L. A. (2010). The Hispanic Americans Baseline  
519 Alcohol Survey (HABLAS): alcohol consumption and sociodemographic predictors  
520 across Hispanic national groups. *Journal of Substance Use*, 15(6), 402-416.  
521

522 SAMHSA. (2014). *Results from the 2013 National Survey on Drug Use and Health: Summary of*  
523 *National Findings*. Retrieved from Rockville, MD:

524 Sharon, E., Merarys, R. V., & Nora, A. (2011). The Hispanic Population: 2010. 2010 Census  
525 Briefs.  
526

527 Sudhinaraset, M., Wigglesworth, C., & Takeuchi, D. T. (2016). Social and cultural contexts of  
528 alcohol use: Influences in a social–ecological framework. *Alcohol research: current*  
529 *reviews*, 38(1), 35.

530 Tanski, S. E., McClure, A. C., Li, Z., Jackson, K., Morgenstern, M., Li, Z., & Sargent, J. D.  
531 (2015). Cued recall of alcohol advertising on television and underage drinking behavior.  
532 *JAMA pediatrics*, 169(3), 264-271.

533 Torres, J. B., Solberg, V. S. H., & Carlstrom, A. H. (2002). The myth of sameness among Latino  
534 men and their machismo. *American Journal of Orthopsychiatry*, 72(2), 163.

535 US Department of Health and Human Services. (2017). *Dietary guidelines for Americans 2015-*  
536 *2020*. Skyhorse Publishing Inc..  
537

538 Zemore, S. E. (2005). Re-examining whether and why acculturation relates to drinking outcomes  
539 in a rigorous, national survey of Latinos. *Alcoholism-Clinical and Experimental*  
540 *Research*, 29(12), 2144-2153. doi:10.1097/01.alc.0000191775.01148.c0

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**Table 1. Semi structured Interview Guide**

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Domain and questions

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*Definition of the problem*

- How would you define alcohol abuse?
- What do you think are some of the biggest alcohol-related health problems Latino/Hispanic men in the United States face?
- How do you think alcohol abuse affects the Latino/Hispanic community?
- How do you think alcohol abuse affects Latino/Hispanic men?

*Masculinity*

- Think of someone you consider manly or a typical man. Describe that person, what makes that person manly?
- How does the idea of manhood influence a man's life?
- How does manhood differ for a Latino/Hispanic man compared to a man of another race?
- How is the idea of manhood influenced by Latino/Hispanic culture or traditions?
- How does the idea of manhood influence health-related behaviors?

*Masculinity and Alcohol Consumption*

- How does the idea of manhood influence alcohol consumption in Latino/Hispanic men?
  - How do traditional ideas of manhood influence alcohol abuse in Latino/Hispanic men?
  - How does this influence change with age?
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**Table 2. Participant Characteristics (n=20)**

<b>Characteristics</b>	<b>n/mean</b>	<b>%/SD (range)</b>
<i>Age (years)</i>	44.6	11.3 (23-64)
<i>Foreign Born</i>	15	75%
<i>Years in the US</i>	29.8	15.4 (6-57)
<i>Currently Married or live with Domestic Partner</i>	15	75%
<i>Employed</i>	20	100%
<b>Income</b>		
<i>&lt;\$29,999</i>	10	50%
<i>\$30,000-59,999</i>	8	40%
<i>&gt;\$60,000</i>	2	10%
<b>BASH (Acculturation)</b>	2.6	1.1 (1-4.75)
<b>Machismo/Caballerismo Scale (TMCS)</b>		
<i>M-Scale (Machismo)</i>	2.7	0.69
<i>C-Scale (Caballerismo)</i>	5.8	0.66
<b>Consumption Measures</b>		
<i>Current Alcohol Use</i>	17	85%
<i>At Least Once a Week</i>	6	35%
<i>Binge Drink At Least Once a Month</i>	4	23%
<i>Experience with Treatment</i>	9	45%

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**Table 3. Select Quotes Illustrating Perspectives and Opinions Regarding Influential Factors of Alcohol Abuse in Hispanic Males.**

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**UNDERSTANDINGS OF ALCOHOL ABUSE**

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*Defining Abuse from Experience*

- “Fatty liver or whatever, or an alcoholic disease of some sort, so you have to cut down and realize that if you want to keep living, you have to stop drinking. People that drink also get sick a lot, if you are tired at getting sick all of the time, maybe you should stop drinking. So, all those little things. You know? You get sick, don’t go work, you don’t get paid, etc.” (Male, 44, Born in U.S.)

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**MACHISMO AT THE ROOT**

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*Defining Masculinity*

- “Many times, Latino men become very [self]-centric. The Latino-Hispanic culture is one that is very family oriented. But at the same time, it is very, men-centric in particular. Yes, this is my family... but you know what? I am the king of the castle and everyone takes care of me.” (Male, 32, Born in Mexico)

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*Tome, Para que se Haga Hombre (Drink so you can become a man)*

- “They have told us, ‘men do not cry’. I have seen fathers offer their young boys alcohol, two or three years old. I have seen it with my own eyes that they offer them a drink and they say ‘drink so you can become a man’”\*\*\* (Male, 52, Born in Mexico)

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*Si el Hombre Gana el Hombre Manda (If the man earns, the man calls the shots)*

- “Somebody doesn’t realize that it could take years until they finally realize, “Hey, I have health problems, I have this, I have that.” It’s not until somebody has a health issue or law enforcement. You get pulled over for drunk driving or you get into some kind of trouble that leads to something where alcohol was involved in. So, then, you realize because it becomes an economic issue” (Male 32, Born in U.S.)

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**THE UBIQUITY OF USE**

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*Consumption-Centered Marketing*

- “Marketing agencies have seized on the opportunity that Hispanics are machos so you know, they use sex appeal too ...there are agencies that tend to market their products or assume that you know, all Latinos are machos, womanizers and etc.” (Male 30, Born in U.S.)

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*Lack of Knowledge Preserves Norms*

- “I think that in our Hispanic culture, from the beginning, since I was a boy everyone drank, it was something that was normal. And I think it’s the same, it’s because of the ignorance of the harm that it can cause. In my opinion, it’s due to lack of knowledge, lack of conscience. \*\* (Male, 38, Born in Mexico)

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**ALCOHOL USE AS AN ESCAPE**

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*Coping Rooted in Machismo*

- “Yeah, even Hispanic males, when they do bond and talk to each other and a guy has a problem, what do you tell them? “Oh go have a couple of drinks and you know, you will be better, you’ll be fine.” Is that the advice, you know? You know, a couple of years later, you find out that the person is an alcoholic.” (Male, 52, Born in U.S.)

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*Looking for a Future and Finding Alcohol Abuse*

- “I work construction so... you know... it feels good to have freakin’ a few beers after work... I had a long day being out in the sun. So I want to say that kinda... it kinda just progresses” (Male, 33, Born in Mexico)

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*\*These quotes have been translated from Spanish*

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