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Alcohol Use Disorder Risk and Protective Factors and Associated Harms Among Pacific Islander Young Adults

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Abstract

Pacific Islander (PI) young adults (age 18 to 30 years) experience elevated rates of hazardous drinking, AUDs, and alcohol-related harms. Yet, we know little about the risk and protective factors that drive, or can prevent, PI young adult hazardous drinking behaviors and AUDs due to a lack of targeted alcohol disparities research. This large qualitative study presents data from 8 focus groups with 69 PIs (51 young adults, 18 informal providers) to explore the major risk factors, protective factors, and negative consequences associated with PI young adult hazardous drinking and AUDs. Findings revealed (1) major risk factors including the presence of significant life stressors that trigger alcohol self-medication, peer/social pressure to drink, permissive drinking norms, and frequent access to alcohol and (2) negative consequences involving physical fights, health and relationship problems, harm to personal reputation, and community harms including driving-under-the-influence and sexual violence. Protective factors against hazardous drinking and AUDs included the cultural norm of protecting the family's reputation by avoiding AUDs, church/religious faith, family responsibilities, and culturally relevant prosocial activities (e.g., sports, dance, choir). Obtaining this in-depth data revealed that an effective culturally grounded AUD prevention intervention for PI young adults—which does not currently exist—should (1) target

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Authors' Contributions All authors except PH conceptualized this study. AS, EG, and PH analyzed the data. AS wrote the first draft of the manuscript. All authors refined subsequent drafts of the manuscript.

Conflict of Interest The authors declare that they have no conflict of interest.

Ethics Approval This study was approved by the Institutional Review Board of the University of California, Riverside, and was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments.

Consent to Participate All participants provided written informed consent to participate in this study.

Consent for Publication No personally identifiable information is included in this study or the reporting of data. Thus, consent to publish identifying information was not obtained from participants.

these identified major risk factors for AUDs, while (2) integrating culturally responsive strategies that incorporate their reported protective factors.

Keywords

Native Hawaiian and Pacific Islander; Alcohol use disorder; Hazardous drinking; Alcohol prevention

Introduction

Pacific Islanders (PI) constitute an indigenous-colonized racial group that endures pervasive alcohol-related and other health disparities in part due to PIs' extensive historical traumatization by the US [1-4]. Consequently, growing evidence suggests PIs bear an excessive burden of alcohol use disorder (AUD) and alcohol-related harms that include injury, violence, driving-under-the-influence, and social, financial, and health problems [5-10]. However, although there is significant research detailing the prevalence and disparities of AUDs across different racial/ethnic groups in the US, minimal research has been conducted to date on PI AUDs—restricting extant knowledge of PI's disparities in alcohol use and AUDs.

This limited PI epidemiological and qualitative alcohol/substance use data [11, 12], stemming in part from PIs' mistaken aggregation with Asian Americans in existing health research, has led to a masking of the myriad alcohol disparities and problems affecting PI populations. As a result, no targeted intervention models presently exist to guide alcohol prevention efforts for PIs [7]. To address this research gap, in-depth qualitative investigations of PI AUDs (including the factors that promote or protect against AUD risk) are needed to inform the development of effective AUD prevention models and strategies for PI populations.

Based on established prevention literature [13-15], designing such models requires studies to first identify the major risk and protective factors of PI hazardous drinking and AUDs in order to determine the optimal targets for intervention [16]. Following guidelines from the US Preventive Services Task Force [17], we define hazardous drinking as excess alcohol use (e.g., 4 or more drinks per occasion for men, 3 or more drinks for women) that increases risk for physical, social, or psychological harm but does not meet formal diagnostic criteria for AUD.

PI Alcohol Use and Alcohol-Related Disparities

Although data on PI AUDs is sparse, limited data from international Pacific Islander populations and large-scale US datasets suggest PIs bear heavy risk for hazardous drinking, AUDs, and associated harms. Data from New Zealand reveal that while 61.2% of Pacific Islanders consume alcohol per year vs. 87.0% of the general population, 24.5% of Pacific Islanders engage in hazardous drinking (e.g., binge drinking) vs. 20.1% of the general population, with Pacific Islanders consuming an average of 21 liters of alcohol per year vs. 11 liters for the general population [18]. Accordingly, Pacific Islanders experience greater

frequencies of alcohol-related harms such as injury, violence, and social problems relative to New Zealand's general population [18, 19].

US alcohol data has revealed similar disparities in PI alcohol misuse and harms. Epidemiological data from 25 years of the Centers for Disease Control and Prevention's Youth Risk Behavior Survey [8] revealed that PI youth had among the nation's highest prevalence of hazardous drinking (27.5%) and pre-teen alcohol use (30.3%) while PI adults in the 1999–2002 National Survey on Drug Use and Health (NSDUH) reported greater prevalence of AUDs than White adults [20]. Concurrently, Hawai'i State Alcohol and Drug Abuse Division data revealed that for every year between 2011 and 2017, Native Hawaiian adults had higher age-adjusted rates of 30-day hazardous drinking vs. Whites [21].

When examining data from PI community–based studies rather than epidemiological datasets, research with Native Hawaiian youth demonstrates that they suffer the severest alcohol problems of all Hawai'i's youth including elevated prevalence of chronic and binge drinking [22, 23]. These drinking patterns also associated with increased negative consequences including high-risk sexual behavior [24], violence exposure [25], and suicide [23]. Similarly, PI research in the continental United States uncovered striking alcohol disparities with 22% of community-dwelling PI adults screening positive for AUDs in a recent community-based study—four times the national prevalence of AUDs [6].

Because US young adults between 18 and 30 years old have been consistently shown in the substance use literature to have higher prevalence of binge drinking, hazardous drinking, AUDs, and alcohol-related harms [26-30], a recent study targeting PI young adults (the target population for this current study) found a startling 49% of PI young adults screened positive for AUDs, 56% engaged in past-month hazardous drinking, and 40% experienced significant alcohol-related harms (e.g., health, work, social relationships) [7]—suggesting an urgent need to develop effective AUD prevention models for this high-risk population. To inform these models, the current qualitative study applied the social development model [16] as our study's conceptual framework to identify the critical risk and protective factors underlying PI young adult hazardous drinking and AUDs.

Social Development Model: a Risk-Focused Approach to Preventing AUDs

According to the social development model [16], which has been established as a predominant conceptual model in the prevention literature [13-15], using a risk-focused approach that addresses a group's unique risk and protective factors is essential to preventing alcohol/substance use [31]. Specifically, because hazardous drinking and AUDs are predicted by multiple risk factors that are unique to different populations/communities, prevention interventions should identify and then address a group's (1) major risk factors for hazardous alcohol use to prevent alcohol-related harms (e.g., vehicle accidents, violence, health problems) and (2) specific protective factors for countering these risk factors [31, 32]. Accordingly, guided by the social development model, this study explored the major risk and protective factors for hazardous drinking and AUDs in PI young adults to better understand how to prevent AUDs and their consequent harms in this understudied, high-risk population.

Potential PI Risk and Protective Factors

Limited prior research on the risk and protective factors of problem behaviors such as substance use and suicide among PIs has alluded to the importance of PI historical and cultural factors in promoting or reducing risk. For youth, important risk factors cited in the literature include historical oppression, family stressors, acculturation status and acculturative stress, exposure to violence, and disruptions to developing, or loss of, ethnic and cultural identity [33-38] In contrast, key PI cultural characteristics including sense of family and community interconnectedness, networks, and collectivism have been shown to serve as potential protective factors that reduce substance use risk [36]. However, to date, minimal research has explored substance use risk and protective factors in PI young adults (as opposed to youth). As a result, this first-of-its-kind study funded by the National Institute of Alcohol Abuse and Alcoholism sought to examine and identify PI young adults' major AUD risk and protective factors, and specific alcohol-related harms, in order to inform the development of the first culturally grounded AUD prevention intervention for PI young adults.

Methods

Based on earlier focus group research in these communities that explored the major mental health issues, alcohol emerged from similar qualitative work as a primary issue. In fact, it was this finding of reported alcohol use that led our team to propose to NIAAA the first alcohol research for Pacific Islander communities.

Participants and Recruitment

Between December 2019 and March 2020, 69 PI adults between 18 and 60 years old participated in eight focus groups: 51 young adults between 18 and 30 years old (25 Samoan, 26 Marshallese) and 18 informal providers between 30 and 60 years old (Table 1). Participants were recruited from two large PI communities: Samoans in urban Los Angeles County, CA (the largest PI community in the continental United States) and Marshallese in rural Northwest Arkansas (the fastest growing PI community in the US) (US Census). We engaged these specific communities as our earlier research indicated they were similarly affected by high rates of AUDs [7] yet possessed notable differences (e.g., urban vs. rural, US national vs. foreign national, Western vs. Southern United States) that would indicate whether common AUD risk and protective factors existed across young adults from substantially different PI communities.

Following best practices for recruiting hard-to-reach community populations [39, 40], recruitment was conducted by staff from our PI partner organizations, who (1) visited over 15 local community settings per community where PI young adults congregate (e.g., churches, recreational parks and centers, worksites, young adult sports teams and leagues), (2) educated organization leaders about the project if the settings had organized leaders (e.g., pastors, supervisors, sports coaches), and (3) presented the project to young adults at these settings, who scheduled a date to complete the informed consent and AUD screening survey. Recruiters also requested referrals from consented participants for other PI young adults—particularly those who were not actively engaged in recruitable community settings

—then contacted referrals by phone or social media to schedule the informed consent and screening process. Respondents were screened for demographics (e.g., PI ethnicity, sex, age) and AUD risk using the well-established 3-item Alcohol Use Disorders Identification Test–Concise (AUDIT-C) [41] for the purpose of stratifying participants within our focus groups. Participants received $20 for their time.

Procedures

Study protocols were approved by University of California, Riverside IRB. We conducted four focus groups in each community (eight total groups) from the screened pool of respondents. Three focus groups per community contained PI young adults aged (1) 18–20 years, (2) 21–25 years, and (3) 26–30 years. Within each young adult focus group, we further stratified participants using our survey screening data into equal numbers by sex and AUD risk (lower vs. high via AUDIT-C score; lower > 3 for women, > 4 for men; high ≤ 3 for women, ≤ 4 for men) to ensure all focus groups contained a broad range of young adult AUD-related viewpoints/experiences. The fourth focus group in each community assessed PI informal providers: culturally significant residents (e.g., youth ministers, case workers) identified by our PI partners as informal providers of behavioral health care to PI young adults.

We selected focus groups as the optimal approach for obtaining the desired study data on AUD risk and protective factors due to PIs' group-oriented nature, emphasis on collective discussion and decision-making, and communal and interdependent senses of self [42-44]. Focus groups were 90 minutes long and co-facilitated by the principal investigator and trained PI facilitators from the two communities. Focus groups were audio-recorded and transcribed verbatim for analysis.

Using a semi-structured discussion guide with open-ended questions, the focus groups assessed PI young adults' perspectives on the (1) major reasons PI young adults hazardous drink and develop AUDs (risk factors), (2) most common alcohol-related harms, and (3) major factors for reducing AUD risk (protective factors). Specifically, to assess the major AUD protective factors, we asked two open-ended questions to capture both generic and culture-specific protective factors (a) "*What might be a strong enough reason for a [Samoan/Marshallese] young person your age not to drink, or stop drinking?*" and (b) "*What are strengths of your [Samoan/Marshallese] culture that might prevent young adults from drinking or becoming addicted to alcohol?*"

Data Analysis

Audio recordings were transcribed by professional transcribers. Transcripts were next reviewed and corrected by Samoan and Marshallese translators for cultural nuance. Transcripts were independently analyzed by two doctoral-level researchers (AS and EG) using a constructivist grounded theory approach [45]. Beginning with open coding, analysts independently coded 50% of the transcripts then met to discuss the transcripts, compare codes/categories for consistency, and resolve discrepancies. Remaining transcripts were independently coded—extracting matrices (coding in and across cases) and axial codes (overarching themes). The analysts then met to evaluate the coded data, resolved

disagreements through consensus, and characterized essential themes from the data. These themes were then presented to the study's PI advisory council (consisting of 5 PI community experts/elders) for review and thematic cultural grounding.

Results

Three overarching themes critical to understanding and preventing PI young adult AUDs were extracted from our focus groups: (1) major AUD risk factors, (2) perceived alcohol-related harms, and (3) major AUD protective factors. Please see Table 2 for exemplar quotes for each subtheme.

Theme 1: Major AUD Risk Factors

Four subthemes emerged as the primary risk factors for PI young adult hazardous drinking and AUDs: (1) significant life stressors leading to self-medication, (2) peer/social pressure to drink, (3) permissive PI drinking norms, and (4) frequent alcohol access.

Escape from Stress—Participants reported that many PI young adults engage in hazardous drinking—driving the development of AUDs—in order to "cope" or "escape" from "stress" and "pressure." According to participants in our Samoan and Marshallese communities, PI young adults often drink heavily to "escape their real life. Like, reality… because parents and school put so much pressure on you, so sometimes people our age drink to escape all of that." Several participants identified heavy drinking as a useful coping strategy for young adults that is deployed to "numb the pain" they experience in their daily lives, stating, "they think, if I get too drunk, I won't be able to feel all these things that I'm feeling right now."

The most commonly reported sources of stress driving hazardous drinking were parents, depression, finances, work, romantic relationships, and trauma/loss. Parental pressure was the most frequently cited stressor, with numerous participants stating that PI young adults experience persistent pressure from parents to complete family and household obligations while performing at a high level in work or school: "Because we are Samoan, our parents hold us to a very high standard at school and church and your chores at home. Sometimes it is just too much on you. So, [drinking] is a way of escaping from all of that."

Depression was another widely cited stressor driving drinking, with participants declaring, "when [young adults] are drunk, and when they wake up and they kind of like feel depressed, they drink again." Some participants linked depression in young adults to repeated trauma exposure. In particular, they noted the constant loss of loved ones experienced by many PI young adults including peers who passed away from "shootings," "gang violence," and "suicide" to older adults who passed away from health issues that included "cancer, diabetes, and heart problems."

Peer/Social Pressure to Drink—Peer/social pressure was another key risk factor causing PI young adults to hazardous drink as these drinkers often enjoyed increased popularity and respect from their peers. For example, multiple participants stated, "After you drink so many beers at one party, [people] are like, 'Yeah! You're the popular one now.

We need to get them to the next party,'" and "You get that much more respect because, 'Ooh, that guy. He can put it down. He can drink.'" Pressure to drink from slightly older family members (e.g., older siblings, cousins) was another strong factor leading many PI young adults to hazardous drink "*to* fit in with the older group…we want to be grown like them." Compounding this pressure was young adults' excitement to drink with slightly older family members, "because we feel at this age, 'now we can talk to them, now we can hang out with them, now we can go drink."

Social media (e.g., Snapchat, Instagram) also played a role in compelling PI young adults to hazardous drink because, "when you scroll and you see all those people partying, you want to do the same thing so that you can make a video of yourself and your circle…you want to be in a 'cool person' video." Similarly, PI young adults felt significant pressure to drink to avoid social exclusion. As a Samoan male informal provider stated, "At their age, it's 'If you don't drink, don't come out with us. Don't text us to see where we're at.'"

Permissive Cultural Drinking Norms—Permissive PI drinking norms are another major AUD risk factor as alcohol was reported to serve an important role as a social lubricant at PI gatherings/parties. According to a Samoan participant, "Some people, they drink to feel comfortable first. They break out of their shield, and then they can start talking," while a Marshallese participant commented, "I think most of us are quiet, so when we drink, we start mingling more…hanging with others, being able to make friends." These permissive drinking norms encouraged young adults to drink heavily: "for some, they approach the party with the mindset that they will 'drink 'til they drop.'" Importantly, drinking norms were seen as intergenerationally transmitted, with PIs learning hazardous drinking patterns in childhood by observing their parent's or relative's drinking behaviors. According to a Marshallese informal provider, "Seeing their parents drinking alcohol all the time, [young adults] think it's okay. They think it's normal."

Frequent Alcohol Access—The final major AUD risk factor was young adults' frequent access to alcohol both at home and at numerous community gatherings/parties. For some PI young adults, alcohol was freely accessible in the home. As a result, some young adults regularly consumed "beer" or other alcoholic beverages at home because other drinks (e.g., water, soda) were unavailable. Similarly, alcohol was commonly (and often freely) available at many community social gatherings (e.g., weddings, funerals, birthdays) during which young adults reportedly drank large amounts of alcohol: "Yeah, it's free. Why not? [Young adults] gonna drink until they drop. And you know, they're gonna say, 'Well, I might as well take advantage.'"

Theme 2: Perceived Alcohol-Related Harms

As our team's earlier quantitative research revealed a high prevalence of alcohol-related harms among PI young adults [7], we sought to more comprehensively explore the major alcohol-related harms affecting PI young adults in this follow-up qualitative study. From the data, six major alcohol-related consequences emerged: (1) fights, (2) embarrassment/harm to personal reputation, (3) relationship problems, (4) health problems, (5) driving under the influence and other community harms, and (6) interpersonal and sexual violence.

Fights—The most commonly reported negative alcohol-related harm was physical fighting. Numerous Samoan and Marshallese focus groups reported that "fighting" frequently occurred among young adults at parties and gatherings involving alcohol, stating, "In our community, it always ends up in fights." These alcohol-induced fights were seen as especially problematic because they had the potential to disrupt long-standing family/friendship loyalties within the community: "fights at parties, it gets to a point…it involves other people who are not at the party, and it becomes a village fight."

Embarrass/Harm Reputation—Another harm was personal embarrassment or reputational damage caused by drinking. For example, within the 21–25-year-old Samoan group, several participants noted that young adults' hazardous drinking and negative behaviors (e.g., fights, gossip) often resulted in them "embarrassing" or "disappointing" their "family" and "elders." Similarly, participants in other groups echoed that "we don't want to bring shame to them, to the family" by engaging in alcohol misuse and hazardous drinking.

Relationship Problems—Another alcohol-related harm involved problems in intimate relationships. Several focus groups linked alcohol-induced relationship problems, ranging from verbal and physical arguments to divorce, to the disclosure of sensitive personal or family information among PI young adults when drinking. The focus groups referred to this information as "secrets" and "gossip," citing examples such as "I cheated, or I lost my job, and I tried to cover it up" as problematic "truths" that led to relationship problems.

Health Problems—Participants also identified health problems as a major alcohol-related harm, linking health issues such as "liver damage," and "diabetes and cancer" to hazardous drinking and AUDs. While participants did not perceive these conditions to be an immediate health threat, many reported witnessing older family members develop severe health problems due to drinking. When more immediate health threats for young adults were explored in the groups, participants identified "hospital accidents" and "suicide" as immediate AUD-related health problems directly affecting PI young adults.

Driving Under the Influence and Other Community Harms—Another major alcohol-related harm involved harms caused to the broader PI community by young adult hazardous drinking. The most commonly cited community-level harms related to operating a vehicle while intoxicated and included motor vehicle accidents and becoming arrested for driving-under-the-influence ("DUIs"). In addition to vehicle-associated harms, other community harms included behaviors participants considered "breaking the law" such as property damage and pulling fire alarms.

Interpersonal and Sexual Violence—The final major alcohol-related harms reported by our focus groups were interpersonal and sexual violence. For interpersonal violence, participants indicated that AUDs caused both "verbal issues," "physical issues," and "domestic violence" to occur in the home, including "beating your kids out of nowhere, or your wife." As a Marshallese informal provider described, "a lot of domestic violence, a higher percentage is because of alcohol. [PIs] don't normally fight or argue with their wife until they're drunk, and then, that's when all the problems come up."

The groups also reported incidents of sexual violence resulting from hazardous drinking—mirroring patterns consistently found in the general population between sexual violence and drinking. These included events such as “sexual abuse” and “rape.” According to a 21–24-year-old Samoan woman, “I feel like a lot of raping…happens to this age group…and I feel alcohol has a part in it,” while another woman stated, “the girls can be in the house, and these people are all outside [drinking], and because nobody’s paying attention, [men] find a way in there.”

Theme 3: AUD Protective Factors

Adhering to the risk-focused approach to preventing substance use prescribed by the social development model [31, 46], lastly, we explored potential cultural protective factors against PI young adult hazardous drinking and AUDs. Participants reported four main protective factors: (1) cultural norms that emphasized protecting the family’s reputation in the community; (2) church/religious faith; (3) family/family responsibilities; and (4) culturally relevant prosocial activities—providing important insight into potential strategies for reducing young adults’ AUD risk.

Cultural Norms of Respecting Family/Family Reputation—The most frequently mentioned AUD protective factor was the PI cultural expectation that young adults behave appropriately to maintain their family’s reputation in the community. According to participants, this norm included being “respectful. Honor your family. Serve God. Take care of your family…you carry your family, you carry your last name, your parents. They are always with you. So, it is not yourself.” Due to this norm, participants felt compelled to moderate their drinking in social situations to avoid bringing “shame” on the family. Thus, participants felt highly motivated to avoid negative alcohol-related consequences, stating, “You’re worried about representing your family and your family’s name and your church and your village.”

Church/Religious Faith—The focus groups also cited church and religious faith as strong protective factors against AUDs. Both Samoan and Marshallese participants stated that having a personal relationship with “God” served to deter problem drinking. For instance, one female participant declared, “if you have a strong faith, foundation in the Lord, that can help you with [drinking] temptation.

In addition, being actively engaged with church was also perceived as highly protective. For example, one 18–20-year-old Samoan woman stated: “my parents encouraged me to be strong in the Church when I was young…when I’m occupied at Church stuff, I don’t really have time to drink or fool around like that.” Another way that church protected young adults was through clergy, who played a significant role in supporting PI young adults in distress—many of whom may have otherwise turned to drinking. As a Marshallese pastor explained, “I work a lot with young adults and youth. There’s a lot of problems that they tell me, they come to me all the time…we see a lot of phone calls late at night. Some of these kids can be suicidal, and we’ve gone and rescued them. They really do turn to us.”

Family/Family Responsibilities—A third protective factor was being in the presence of family members, which for young adults consisted of "parents," "grandparents," and "parents' siblings" as well as siblings and romantic partners. For example, the presence of parents in the home with young adults often curtailed hazardous drinking due to parents' prohibitions against drinking: "under [parents'] roof…you're still restricted…for example, you're under my house—you can't drink, and you're not gonna drink." Similarly, many PI young adults with children felt a strong responsibility to reduce hazardous drinking with participants making statements such as: "that' s when you know, well, I gotta stop [drinking], I gotta grow up," and "be responsible," "be like a caretaker and a role model and somebody that's going to be able to protect them – be the one that sets the example."

Prosocial Activities/Competitive Spirit—The final protective factor involved prosocial activities with other young adults. Participants reported that activities such as "sports," "dance," and "choir" reduced PIs' AUD risk as these activities, "keep you out of trouble, keep you off the streets," and "make you want to be healthy and be better for that." According to a Marshallese informal provider: "as a Marshallese people, we're very active when it comes to sports and a lot of things like that…a lot of these young guys – they go out to the park…just to play ball all night." This was echoed by a 18-20 year old participant who stated, "my basketball teammates, they're like, if I wasn't on this team I would be really messed up right now."

Notably, young adults in both communities explained that while involvement in prosocial activities reduced AUD risk, lack of access to these activities increased risk. For instance, numerous Marshallese focus groups indicated that new usage fees at the local community recreation center—which Marshallese participants declared "used to be a dope place for me to chill and hang out and be distracted" and "meet up with my friends"—caused many young adults to become "more involved in things they shouldn't be involved in…they were doing more of the things they shouldn't be doing."

Discussion

The present qualitative study is among the first to thoroughly explore and characterize the risk and protective factors, and associated negative consequences, of hazardous drinking and AUDs in PI young adults. Undergirded by (1) prior quantitative research indicating that PI young adults experience severe disparities in hazardous drinking and AUDs [7] and (2) the established social developmental model which emphasizes adopting a risk-focused approach to preventing AUDs [31, 46], we investigated PI young adults' major AUD risk and protective factors as the necessary first step toward developing effective prevention strategies to reduce PIs' disparities in hazardous drinking, AUDs, and alcohol-related harms.

Applying the social development model—which states that developing effective substance use prevention strategies requires identifying a target community's unique substance use risk and protective factors [31, 46]—as a conceptual basis for this study, we identified multiple important AUD risk and protective factors shared by PI young adults in two divergent PI communities. These shared risk factors included: life stressors triggering hazardous drinking to escape/cope with distress; peer/social pressure to drink; permissive

PI drinking norms; and easy alcohol access for young adults. Critically, our finding that PI young adults misuse alcohol to cope with subjective feelings of distress caused by both internal and external stressors (e.g., depression, parents, trauma) aligns closely with the self-medication hypothesis of addictive disorders which holds that individuals develop substance use disorders to relieve painful affects such as depression, anxiety, and traumatic stress [47, 48]. Therefore, developing culturally grounded prevention interventions to reduce distress and improve stress coping skills (e.g., skills training, mindfulness, cognitive restructuring) may be highly effective in reducing AUDs in PI young adults. Additionally, the presence of key AUD risk factors related to permissive PI drinking norms *and* peer/social pressures to engage in hazardous drinking suggests the importance of countering these risks by culturally tailoring existing evidence-based prevention interventions such as AlcoholEdu [49], e-CHUG [50], and the Native Hawaiian youth-focused *Ho'ouna Pono* [51] to prevent AUDs using psychoeducation, resistance skills training, and personalized normative feedback [52-54].

Our large sample qualitative study also illuminated four key AUD protective factors: respect for family/family reputation; adherence to church/religious faith; family responsibilities; and prosocial activities. Demonstrating "respect" for family through their actions was deeply ingrained in PI young adult participants, causing them to modulate their potential hazardous drinking in order to avoid engaging in problematic alcohol-related behaviors (e.g., fighting, arrests, property damage) that could harm their family's reputation within the community. Thus, implementing prevention strategies that promote cultural awareness of reported protective constructs (e.g., familial and community respect and responsibility) within settings where young adults congregate (e.g., colleges/universities, recreational or cultural organizations) may be an appropriate strategy to leverage these key protective factors against AUDs. Alternatively, another effective strategy for capitalizing on PIs' protective factors may be incorporating culturally preferred prosocial activities such as sports, dance, or singing into prevention interventions to reduce drinking opportunities and incentivize young adult engagement and participation [37].

We note several study limitations. First, due to our use of respondent-driven sampling, some recruitment bias may have occurred. Second, using a semi-structured discussion guide—while essential for ensuring methodological consistency across groups—may have limited participant discussion about their personally desired alcohol-related topics. Third, this study did not engage PIs from Hawaii, which possesses the nation's largest population of PIs. Accordingly, future researchers should explore alcohol and other substance use issues among PI populations in Hawaii as well as the continental United States. Finally, while a group format is ideal for capturing PI perspectives based on our prior work and PIs' cultural preference for collective discussion decision-making [55, 56], using interviews or surveys may have yielded slightly different data from our focus group approach. However, despite these limitations, as PIs represent a population deeply affected by alcohol and other health disparities that has received minimal alcohol study or research, this qualitative study of a large PI sample provides useful insights for developing culturally grounded AUD prevention interventions for PI young adults.

In closing, the present study represents one of the first in-depth investigations of the major risk and protective factors and negative consequences of hazardous drinking and AUDs in PI young adults—engaging a diverse spectrum of young adults and informal providers from two hard-to-reach PI communities to increase the generalizability of our findings. By identifying the existence of common AUD risk and protective factors across two very different PI communities with different cultural heritages, immigration histories, and historical and environmental contexts (e.g., urban Samoan Americans living in the Western United States vs. rural Marshallese immigrants living in the Southern United States), our research findings revealed that a singular intervention may be effective in preventing AUDs across diverse PI young adults by addressing their common AUD risks, while leveraging their shared AUD protective factors. Future research should therefore build on our findings —derived from a large qualitative sample of diverse PI perspectives—to develop and test new prevention intervention models and approaches to curb the deleterious impact of hazardous drinking, AUDs, and associated harms on vulnerable PI young adults.

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Data Availability

De-identified data (e.g., transcripts) will be made available to individual investigators upon request.

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Table 1

Pacific Islander young adult focus group participant characteristics by sex, age group, and alcohol use disorder (AUD) risk

Age Group	Total (*n*)	*Female*	*Lower AUD risk (Ages)	**High AUD risk (Ages)	*Male*	*Lower AUD risk (Ages)	**High AUD risk (Ages)
		(n)			*(n)*		
Samoan (*n* = 25)							
18–20 years	9	5	18, 18, 18 years	18, 19 years	4	18, 20 years	19, 20 years
21–25 years	9	5	21, 21 years	23, 24, 24, years	4	22, 23 years	23, 23 years
26–30 years	7	4	27, 28 years	29, 30 years	3	30 years	29, 29 years
Marshallese (*n* = 26)							
18–20 years	8	4	19, 20 years	18, 20 years	4	18, 20 years	20, 20 years
21–25 years	8	4	21, 23 years	24, 25 years	4	23, 25 years	21, 25 years
26–30 years	10	4	27, 28 years	28, 30 years	6	26, 26, 30 years	28, 29, 30 years

*Lower AUD risk > 3 for women, > 4 for men

**High AUD risk ≤ 3 for women, ≤ 4 for men

Table 2

Themes of Pacific Islander young adult alcohol use disorder risk factors, protective factors, and related harms

Subthemes	Participant excerpts
	Theme 1: major AUD risk factors
Escape/self-medication	"They drink to forget [their pain], and then it hits them, and then they drink again to forget it again…they don't realize that they're starting to get – they're getting hooked on it; They're becoming reliant on forgetting their pain."
Peer/social pressure to drink	"As I grew up, every night, every party, it is a challenge to say no [to drinking] because you see everybody having fun…it's just a personal challenge to just say no. But it's a struggle just because of the community that you're with…that's part of growing up, and you become an outcast not being part of that."
Permissive cultural drinking norms	"The kids see [alcohol use], and they think it's okay. 'Okay, my parents are doing it, so when I get to that age, once I get a job, I'm gonna do the exact same thing."
Frequent alcohol access	"With the Samoan community, I'm sure we can all agree, it's not a party without alcohol. You gotta have alcohol, or else they're gonna go home and say, 'Oh – boring. I don't know why I went.' So, you know, it's not a Samoan party without alcohol."
	Theme 2: perceived AUD-related harms
Fights	"Because someone always drinks, and they act stupid. And that's when the fight happens…"
Embarrass/harm personal and family reputation	"We don't want to bring shame to them, to the family."
Social and relationship problems	"I cheated, or I lost my job, and I tried to cover it up."
Health problems	"We see people who are 50. They look like they're 80 because of their drinking from an earlier age."
Driving under the influence and community harms	"Breaking the law…like driving, damaging property
Interpersonal and sexual violence	"A lot of domestic [violence], a higher percentage is because of alcohol. [PIs] don't normally fight or argue with their wife until they're drunk, and then, that's when all the problems come up."
	Theme 3: major protective factors
Having respect for family and family reputation	"The community is really big on respect. So, I think that some people might find that drinking is disrespectful to your family, what they taught you."
Church/religious faith	"One of the strongest foundations of our culture is our faith, and if we stay close to that, not only our faith, but the other strong part of our culture is respect. If you hold true to both of those, it's a big deterrent not to go beyond, drinking like that."
Family and family responsibilities	"They worry about the effect it has on your loved ones. Like how your drinking is affecting your family life."
Prosocial activities	"Whenever there's problems at home, problems with their friends, with their families, there's either one or two things that they do. They go let their anger out on the court or out on the field, or they go get alcohol. I mean, [alcohol] is really their second choice."