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Perceived Unfair Treatment and Problem Drinking among U.S. Navy Careerists

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Abstract

This mixed method paper assessed interrelationships of unfair treatment at work, stress, and problem drinking amongst a sample of U.S. Navy careerists. Survey data from current drinkers (n=2380) were analyzed, along with qualitative interviews from a quota sample of 81. More women than men (51.4% vs. 16.2%) reported gender unfair treatment; approximately 20% of respondents reported ethnic/racial unfair treatment. Unfair treatment was associated with likelihood of problem drinking, but associations were attenuated after adjusting for frequency of work problems and expecting alcohol to alleviate stress. Qualitative results revealed contexts of unfair treatment within bureaucratic structures, tradition, norms, and role modeling.

Keywords

Unfair treatment; Alcohol use; Problem drinking; Gender; Ethnicity; Navy; Stress

Introduction

Among the myriad stressors impacting workers' well-being, perceived unfair treatment is among the most pernicious. Reflecting psychological and sociological theories on hierarchical relations in society generally and work specifically, unfair treatment may be defined as discriminatory behaviors and policies, influenced by multiple pathways of social and economic context often based on gender, race, or ethnicity (Schulz et al., 2000; Guyll,

Matthews, & Bromberger, 2001). Specifically, unfair treatment perpetuates and exacerbates those hierarchical relations by regulating the advancement of certain classes of workers based largely on their demographic characteristics (Cockburn, 1991). Given the competitive nature of work organizations, unfair treatment may also occur in the form of hostile work environments as a vehicle for advancement at others' expense or as a way of marginalizing women (Stainback, Ratliff & Roscigno, 2011) or members of particular racial/ethnic groups (West & Fenstermaker, 1995), or in work settings where norms supportive of harassment, bullying, violence and weak or authoritarian leadership exist (Baillien, Neyens, and De Witte, 2008; Rospenda, Richman, Ehmke, & Zlatoper, 2005).

Several aspects of unfair treatment are particularly worthy of mention. First, in virtually all industrialized nations, gender or racial/ethnically-based discrimination in the workplace is illegal (Green, 2003). Although overt forms of unfair treatment against employees have diminished, subtler forms, which are difficult to detect and prove, are likely to persist (Sears, 1998; Cortina et al., 2011). Moreover, cross-sectional research suggests positive associations between increased unfair treatment and elevated stress (Judge & Colquitt, 2004; Vermunt, & Steemsa, 2001; Roberts, Swanson, & Murphy, 2004), and specifically between experiencing unfair treatment at work and engaging in problem drinking (Rospenda, Fujishiro, Shannon, & Richman, 2008).

In much of this literature, stress and other threats to employees' well-being result from their *perception* of unfair treatment (Arai, 2008; Wadsworth et al., 2007). Unfair treatment and discrimination overlap by definition as noted by Schulz et al. (2000:315), because unfairness may "include institutional or structural forms of systematic discrimination" such as barriers to educational and employment opportunities. Thus, even in workplaces with well-defined, rigorously enforced policies regarding discrimination, employees may suffer from stress if they feel themselves to be the victim of overt or subtle unfair treatment.

Although the U.S. military has policies prohibiting gender and racial/ethnic-based discrimination, as well as more generalized forms of discrimination such as hazing, its culture of conformity, stoicism, and obedience to authority may result in the perpetuation of more subtle forms of unfair treatment. Formal and informal unfair treatment may be particularly salient among women, given the historically masculine occupational culture of the military (Duke & Ames, 2009). Prior to the Afghanistan and Iraq conflicts commencing in 2001, women faced structural discrimination by generally being precluded from serving in conflict zones, thus diminishing equal opportunity for promotion.

More recent findings on work-related stress and problem drinking have been somewhat mixed, depending on the type of stress measured. As reported by Frone's recent review (2013), positive relations were found between problematic alcohol outcomes and abusive supervision (Bamberger & Bacharach, 2006), general harassment (Marchand, 2008), sexual harassment (men), and gender discrimination (women), and negative relations with racial discrimination (Rospenda, Richman, & Shannon, 2009) and conflict at work (Frone, 2003).

Frone (2013, p.77) provides a taxonomy showing the distinction between work and work-family stressors, with a premise that stressors cause substance use as a means of reducing psychological tension and strain. Studies showing the mediational role of beliefs and norms about using alcohol for stress reduction in reducing stress (Chen & Cunradi, 2008; Ragland, Greiner, Yen, & Fisher, 2000), suggest that workers in occupational settings that support such norms are at particular risk of self-medicating with alcohol. A study of work culture, stress and military drinking norms found that among women, increased stress was associated with increased perceived peer approval of heavy drinking and increased perceived number of drinks by peers (Ames, Cunradi, Moore, & Stern, 2007).

U.S. military surveys show that the rates of heavy alcohol use (defined as drinking five or more standard drinks per typical drinking occasion at least once a week) have remained relatively constant between 1980 and 2008 at around 20% (Bray et al., 2010). Higher rates of heavy alcohol use among U.S. military personnel compared to civilians may in part be due to the preponderance (approximately 47%) of military males aged 18 to 25 (Bray et al., 2009). However, another recent U.S. military study found that high levels of perceived stress, coupled with alcohol availability and ambivalent alcohol policies, contributed to the high levels of problematic drinking (Ames, Duke, Moore, & Cunradi, 2009).

Given the likelihood of perceived unfair treatment resulting in occupational stress, the goals of this study are twofold: to assess the prevalence of perceived gender- and race/ethnicity-based unfair treatment at work and to analyze the interrelationships among perceptions of unfair treatment, other job and family stressors, and problem drinking. Expanding on a social ecological model of alcohol use previously developed by Ames & Janes (1992), we hypothesized that unfair treatment as a stress factor, in concert with other work-related stress factors, will be associated with alcohol problems, and that frequency of participation in pro-social non-alcohol centered activities during off hours will moderate these associations.

Methods

Data for this analysis were obtained from a larger mixed methods (ethnography and survey) study of the influence of military culture and occupational factors on drinking among active-duty U.S. Navy career personnel (Ames et al., 2007). The research protocol, including measures for confidentiality, was approved by the Institutional Review Boards of the Naval Health Research Center and the Pacific Institute for Research and Evaluation.

Survey Data Collection

Briefly, survey respondents consisted of Navy personnel with at least seven years of service. This criterion assured that all respondents had re-enlisted at least once, and purposively excluded new recruits and junior enlistees. Respondents voluntarily completed confidential self-administered questionnaires on drinking, demographic, and psychosocial factors between 2001 and 2002. In cooperation with the Department of Defense (DoD), we attempted to contact 6,518 potential participants: 588 did not meet study eligibility requirements, and 1,198 had incomplete address information. The final response rate was approximately 62% (2,922/4,732). Analyses herein were limited to current drinkers ($n=2380$; 82%), defined as those who had at least one drink of an alcoholic beverage in the previous 12 months (1,156 males, 1,224 females).

Measures

Demographic factors—Each respondent was coded as male or female; respondent age was categorized as 25-30 years, 31-35 years, 36-40 years, and those older than 40 years (reference group). Race/ethnicity was coded as non-Hispanic Black; Hispanic; Asian or Pacific Islander; American Indian or Alaska Native; or non-Hispanic white (reference group). Marital status was categorized as separated, divorced; single/never married or married/cohabiting (reference group). The rank of each respondent was categorized as enlisted or officer (reference group).

Perceived unfair treatment—Two scales were developed to measure unfair treatment based on gender and racial/ethnic background, respectively. Respondents were asked to rate the frequency over the past 12 months that they thought they were treated unfairly by co-workers, supervisors, getting promotions, disciplinary actions, and work-related social activities because of (1) their gender, and (2) race or ethnic background on a 5-point scale (1

= *never* and 5 = *more than 10 times*). Cronbach's α (reliability) was .83 for the gender-based scale, and .87 for the racial/ethnic-based scale. Because data for both scales were highly skewed, and consistent with previous studies (Rospenda et. al., 2008), each measure was dichotomized (0, 1) between those who reported 1 unfair treatment experiences and those who reported none.

Psychosocial factors: work/family stress—The Specific Sources of Stress scale from the DoD Survey of Health Related Behaviors Among Military Personnel (Bray et al., 2006) was used to measure respondent's work/family stress. This 15-item scale asks respondents to rate the level of stress they experienced over the past 12 months resulting from occupational, financial, health, and family issues on a 5-point scale (1 = *none* and 5 = *a great deal*). Reliability was Cronbach's α = .83.

Work problem frequency—A scale developed and used to measure frequency of work problems in industrial settings (Ames, Grube, & Moore, 1997) was modified for the current study. Respondents were asked to rate the frequency of 14 work problems they may have experienced over the past 12 months on a 6-point scale (1 = *never* and 6 = *10 times or more*). Reliability was Cronbach's α = .72.

Participation in pro-social activities—Respondents were asked to rate their past 12-month frequency of participation in a range of pro-social activities, including (1) fitness class, gym or team sports; (2) classes, hobby clubs, educational seminars; (3) community or national organizations or clubs; (4) children's or school-focused groups, such as scouts, 4-H, or PTA; and (5) church-sponsored groups or activities on a 6-point scale (1 = *never* and 6 = *once a week or more*). Frequencies across categories were summed into a scale representing participation in pro-social activities.

Expect drinking to alleviate stress—Respondents were asked, “Suppose you were to have 3 or 4 drinks after work in a club on base. How likely do you think it is that it would alleviate stress?” Responses were measured on a 4-point scale (1 = *disagree* and 4 = *strongly agree*).

Problem drinking measures—Respondents were asked how often they consumed alcohol during the previous year and the usual number of drinks per occasion. Beverage-specific questions were asked for alcoholic beverages. In addition to a quantity-frequency (Q-F) index, which was created by multiplying the number of days for which drinking was reported by the usual number of drinks consumed for each beverage, we measured three problem drinking outcomes: (1) *DSM-IV alcohol abuse*. Past 12-month alcohol abuse was assessed using DSM-IV criteria (APA, 1994). (2) *Risk for alcohol dependence*. Respondents were administered the CAGE (Mayfield, McLeod, & Hall, 1974), a brief 4-item screening instrument designed to identify those at high risk for alcohol dependence. Those who endorsed at least 2 of the 4 CAGE questions over the last 12 months were scored positively for being at risk for clinical alcohol dependence. (3) *Frequent heavy drinking*. We classified as frequent heavy drinkers males who reported consuming five or more drinks per drinking occasion and females who reported drinking at least four drinks per drinking occasion at least once a week during the past 12 months.

As an outcome measure, we created a variable that was coded positively if the respondent had at least one of the previous problem drinking outcomes; the reference group consisted of those who did not report any problem drinking outcomes over the past 12 months.

Survey analytic strategy

Gender differences in independent and dependent variables were examined using bivariate analyses (chi-square and t-tests). Because previous research suggests that women in the military may be subject to unique gender-based stressors, we stratified the multivariate analysis by gender in order to separately examine the contribution of psychosocial factors to the likelihood of problem drinking among males and females rather than adjusting for gender in a mixed-gender model. Gender-stratified multivariate analyses of the drinking outcome measure were undertaken in three steps: unadjusted logistic regression models were developed to examine the association between perceived unfair treatment and likelihood of the problem drinking outcome; adjusted for demographic factors (age, race/ethnicity, marital status, rank); adjusted for psychosocial factors (work/family stress, frequency of job problems, frequency of pro-social after-work activities, belief that drinking will alleviate stress). To test whether frequency of participation in pro-social leisure activities moderates the associations between perceived unfair treatment and alcohol problems, we included an interaction term in the models. The Bonferroni procedure was used to adjust for multiple comparisons (Aiken & West, 1991). Since the interactions did not meet the criteria for statistical significance, the analysis was rerun as a main effects model. Bivariate and multivariate results were weighted to the gender, rank, and racial/ethnic distribution of the U.S. Navy active duty population. Analyses were conducted with SPSS statistical software package, version 16 (Chicago, IL).

Ethnographic Procedures and Analysis

For the ethnographic data collection, staff anthropologists conducted observations and interviews on ships and submarines in port, with one week aboard an aircraft carrier at sea. In all, we recorded 81 semi-structured interviews in private rooms with a quota sample of enlisted personnel, officers, medical personnel, counselors and chaplains. The sample was stratified by geographic location, gender, and job categories. Despite some refusals, the response rate for this qualitative portion of the study was relatively high, with over 90% of those invited participating in the interviews. Reflecting the larger study's goals, the interview questions focused on alcohol use and perceived unfair treatment.

Following transcription, interview texts were entered into ATLAS.ti (Muhr 2010), a software package facilitating qualitative analysis through organization of the interview narratives. A standardized process of coding text segments into themes (Ryan and Bernard 2003) entailed: 1) listing a priori codes based upon the research questions; 2) reviewing all interview transcripts for emergent themes to arrive at consensus on code meanings, and 3) returning to the coding process through searching for key words central to the present paper and assessing the context of the found words to see if the words found were spurious (e.g., “hazardous”) or substantial (e.g., “hazing”). The starting and ending points of each relevant passage were marked to demarcate the identified text with the code (e.g., harass, hazing). Finally, the research team used ATLAS.ti's proximity code searches to identify relevant quotes to illustrate the recurring patterns concerning interactions of unfair behavior and heavy drinking. The qualitative findings both contextualize and amplify the quantitative analyses.

Results

Survey Results

Sample Characteristics—The age distribution of male respondents (n=1156) was: 25-30 (13.7%); 31-35 (29.3); 36-40 (33%); and 41-60 (23.9%). In terms of race/ethnicity, 47.2% were white, not Hispanic; 19.2% black, not Hispanic; 12.6% Hispanic; 12.9% Asian or Pacific Islander; and 8% American Indian/Alaskan Native. Most (85.5%) were married/

cohabiting, 10.7% separated/divorced, and 7.8% never married. Regarding rank, 72.6% were enlisted and 27.4% were officers. Among female respondents (n=1224), the age distribution was: 25-30 (18.4%); 31-35 (25.5%); 36-40 (31.1%); and 41-60 (25%). Most female respondents (57.4%) were white, not Hispanic, followed by black, not Hispanic (20.2%), Hispanic (10.8%), Asian or Pacific Islander (8.3%), and American Indian/Alaskan Native (3.3%). In terms of marital status, 58.7% were married/cohabiting; 23.1% separated/divorced, and 18.2% never married. Most (73.2%) were enlisted; 26.8% were officers.

Bivariate Analyses

Problem Drinking: More men than women met the CAGE criteria for risk of alcohol dependence (10.9% vs. 7.8%; $\chi^2 = 6.74$, 1 *df*, $p < 0.01$). In previous analysis, we found that more men than women met DSM-IV criteria for alcohol abuse (28.2% vs. 15.1%; $\chi^2 = 63.5$, $p < 0.001$), and reported more weekly frequent heavy drinking (13.7% vs. 8.9%; $\chi^2 = 13.9$, $p < 0.001$). More men than women had at least one problem drinking outcome (33.5% vs. 21.0%; $\chi^2 = 49.81$, 1 *df*, $p < 0.001$).

Psychosocial Factors: A greater proportion of women than men reported at least one incident of perceived workplace gender unfair treatment (51.4% vs. 16.2%; $\chi^2 = 336.71$, 1 *df*, $p < 0.001$), but there were no differences in the proportion of men and women reporting at least one incident of perceived workplace racial/ethnic unfair treatment (19.1% vs. 21.5%; $\chi^2 = 2.36$, 1 *df*). Participation in after-work pro-social activities did not differ between men and women (mean scores: 5.26 vs. 5.14 of a possible 25). On average, men had greater expectations than women that drinking after work would alleviate stress (2.26 vs. 2.16 of a possible 4; $t = 3.13$, $p < 0.01$). Previous analysis found no differences between men and women in work/family stress (16.9 vs. 17.3 of a possible 75; $t = -0.96$), but women reported more work problems than men (7.5 vs. 6.9; $t = -2.611$, $p < 0.01$).

Multivariate Analyses

Perceived workplace gender unfair treatment: The unadjusted model in Table 1 shows that perceived workplace gender unfair treatment is associated with risk for having at least one problem drinking outcome for men (Odds Ratio [OR] = 1.40) and women (OR=2.14). With adjustment for demographic factors, this association becomes non-significant for males (Table 1, Model 2). With adjustment for psychosocial factors, (Table 1, Model 3), the results show that frequency of work problems (OR=1.39) and expecting drinking to alleviate stress (2.02) were associated with the likelihood of having at least one problem drinking outcome for men. In addition, enlisted men were at greater risk compared to officers (OR=1.75), and Asian/Pacific Islander men were at decreased risk compared to white men (OR=0.44). For women, the final adjusted model (Table 1, Model 3) showed that those reporting at least one incident of perceived workplace gender unfair treatment were at risk for problem drinking (OR=1.54) compared to women who didn't perceive any workplace gender unfair treatment. As with men, work problem frequency (OR=1.33) and expecting drinking to alleviate stress (1.84) were also associated with problem drinking risk for women. Pro-social activities were not protective for men or women against having at least one problem drinking outcome.

Perceived workplace racial/ethnic unfair treatment: The unadjusted model in Table 2 shows that perceived workplace racial/ethnic unfair treatment is associated with risk for having at least one problem drinking outcome for men (OR=1.60) and women (OR=1.60). These associations held following adjustment for demographic factors (Table 2, Model 2). With adjustment for psychosocial factors, however, the associations were no longer significant for men or women (Table 2, Model 3). For men, frequency of work problems (OR=1.36) and expecting drinking to alleviate stress (OR=2.02) were associated with the likelihood of having at least one problem drinking outcome. Enlisted men were at greater

risk compared to officers (OR=1.74), and Asian/Pacific Islander men were at decreased risk compared to white men (OR=0.44). For women, the final model (Table 2, Model 3) showed that frequency of workplace problems (OR=1.35) and expecting drinking to alleviate stress (OR=1.85) were associated with risk for having at least one problem drinking outcome. For men and women, pro-social activities were not associated with decreased likelihood of having at least one problem drinking outcome.

Qualitative Results

The qualitative interview analyses illustrate recurring themes with brief quotes pointing to the survey results. In particular, we draw attention to unfair treatment and its associations with alcohol problems, problems at work, and the expectation that drinking is an effective way to reduce stress. The U.S. Navy has issued rules and regulations regarding alcohol use. In conjunction with “responsible use,” Navy policy stresses the deglamorization of alcohol and drinking. Deglamorization pertains to the need for commands to remove the role of alcohol from traditional ceremonies “by forbidding those practices which may encourage personnel to drink irresponsibly” (OPNAV 5350.4C:4). Enforcement of limits on alcohol behavior on deployment varied from ship to ship, depending on leniency of officers in the chain of command.

Given the regimentation of work life and dangerous situations during deployment, military workers face a variety of stressors that are distinct from those of civilian workers. In other respects, however, fundamental aspects of work-related stress are shared with other occupations, including conflicts between work and family obligations that are inherent in separations from family (Bellavia & Frone, 2005). The personnel we interviewed outlined sources of stress that they linked to excessive alcohol consumption, for example, marital strife and loneliness during long deployments, in which alcohol consumption is prohibited with rare exceptions aboard ships but is highly normative on shore leave (Ames et al., 2007). We especially focus on an element of stress in relation to alcohol use and perceived unfair treatment by coworkers and supervisors. The two primary categories we asked about pertained to gender and race/ethnicity, and to a lesser extent unfair treatment of gays and lesbians serving in the Navy. In the context of the prevailing “Don't Ask, Don't Tell” policy at the time, such discussions were guarded.

Unfair Treatment—Related to perceived gender bias, an enlisted female in the air division observed,

“You have people who take advantage of the fact that they have some power and they belittle others because they have that ability to do so and get away with it. I came from the Navy air command before, which was a male-dominated community and as a female you had to work harder to prove yourself.”

Older women who were early entrants to ships described harassment of subtle and not-so-subtle forms. A senior enlisted female said that she was harassed by a Leading Petty Officer several grades above her when she first served aboard a ship:

“This individual played on my emotions; when you're young and you go overseas or you go on a ship, you miss home, mommy, daddy, and you bond to whatever friends you can. This individual seems to bond and be my friend and stuff like that. He made advances, sexual advances, which was my duty to report to the command.”

A female officer described harassment from an analytical framework:

“We have that red light, yellow light, green light behavior. I've seen lots of yellow light behavior, where things are borderline, kind of tongue-in-cheek, where

depending on the recipient's perception, it could go either way. I've seen a lot of that behavior for all groups, whether they be ethnic groups, male-female, male-male, kind of alluding to homosexual behavior, those kinds of things. Depending on who's the recipient and how they took it. It's done on a teasing [basis], which doesn't mean that there isn't some underlying truth to the person who's giving it."

Compared to what interview respondents described in the domain of sexual harassment, we heard far fewer instances of unfair treatment because of one's race or ethnicity. One African-American enlisted woman spoke of experiencing harassment from white Canadian military personnel with whom she was working: "There's a lot of racial stuff going on there, but to them, it was no big deal. You know, it was offensive to me, but to them, it was like they make little jokes and stuff." What she and the female officer quoted above were describing has been defined by psychologists as micro-aggressions. In a concept introduced by Pierce and colleagues (1977) and elaborated by Sue et al. (2007), micro-aggressions are brief and common verbal, nonverbal and environmental negative interactions (intentional or not) that communicate insulting messages to members of racial, ethnic or other minorities. These slights may include jokes that reference obnoxious stereotypes that cumulatively have a wearing and detrimental effect on the well-being of those who must endure them.

However, there were others who said that although they believed that many military personnel held racist beliefs, open expression of these beliefs was often held in check by their co-workers: "Every once in a while, you'll see it, it'll flare up. Someone will pull them off to the side and talk to them, 'Hey! Do you realize what you just said, don't be...' It'll get taken care of before it escalates into a problem." A number of respondents referred to the directives that forbid racial and sexual harassment, but conceded that in subtle ways, it continues in everyday interactions.

Traditional areas of unfair treatment that were commonplace in former years have been greatly reduced over the previous decade. Describing harassment aboard submarines, where the goal is to test endurance during critical episodes, an enlisted older male said,

"When you come into the submarine force, everyone's considered NUB—another useless body, or none useful body. You're not qualified. Those people are hazed. A lot of the hazing is to see how much stress you can take. When will you snap? That rationale gets passed from generation to generation as an OK way to test you. I'm not sure if it's right or wrong, but it's the way it happens."

Some male officers in all categories thought that ongoing horseplay and, to them, innocuous forms of hazing, teasing and the like, had been needlessly forbidden. One officer stated: "I think we, the Navy will not tolerate hazing. But I think there's a danger in overreacting to the point where what is truly good-natured ribbing, practical joking, can't be part of the workplace." However, the officers' perspective of benefits of teasing and ribbing, whether it involved gender, ethnic background, rank or job, was not shared by many of the enlisted, lower-ranked personnel.

Stress, drinking, and consequent problems—Although some Navy personnel claimed their coworkers drank for camaraderie, or out of boredom (another form of job stress), a number of respondents espoused views that were in accord with the survey findings regarding expectations that consuming alcohol relieves stress. An enlisted male recalled drinking because he thought it alleviated stress in a position he held at a large base:

"The job was very stressful. We got up late at night, and we all go and have a drink or two, it depends on what time I had to be back at work. You had some people that had to be right back at work at 04 (4:00 AM), they're gonna have that drink, and you can have only one drink, but you'll smell like a brewery when you come in."

A senior enlisted male said:

“If somebody's had a bad day, they had a supervisor yell at them, they're more likely to go out and get hammered that night.”

An example offered by an enlisted male on an aircraft carrier was:

“The division that works hard is the engine room men. They are heavy drinkers from the senior chief all the way down; they get in trouble all together.”

A senior enlisted male explicitly tied the stress he experienced from being separated from his new wife during two consecutive lengthy deployments; after they divorced, he said,

“I started drinking heavily, and I mean heavily, a fifth for breakfast, a fifth for dinner, and a fifth for supper. I got arrested one too many times.”

Another enlisted male recalled when his ship's crew was working long hours during an overhaul, many went to captain's mast (disciplinary hearings) for

“fighting, arguing...I think more people from the ship were drinking heavily at that time than now.”

Alternative activities as a way to reduce heavy drinking—To the extent that military leaders are aware of links between the many stresses that their charges experience and the norm of heavy drinking as a relief valve, especially on deployment, some respondents identified ways in which ship captains and other leaders actively fostered activities such as sports leagues in order to offer alternatives to drinking. For example, an enlisted female in Norfolk who wanted to see more alternatives to drinking for stress reduction during deployment liberty noted, “If you are not involved in sports, about the only other thing, other than fishing or scuba diving, was to go to the bar and drink.” Similarly, a female officer mentioned, “The Morale, Welfare Recreation will sponsor tours, so if you have a day that you have no duty, get a tour in: it's the best way to see a country, whether it'd be in Thailand, or an elephant ride. In Oman, I went on an overnight tour in the desert.”

Discussion

Our survey results confirmed our predictions that perceived unfair treatment may result in problem drinking outcomes, and expectations that drinking alleviated stress, echoing previous work on stress and drinking mentioned in the Introduction. Of special note is that over half the women reported unfair gender treatment compared to one sixth of the men. This difference may be in part due to differential attitudes of superior officers favoring men over women and subtle teasing or joking banter that could have a malicious intent. Interestingly, we found no gender differences in reports of race/ethnicity-based unfair treatment. Although the identified patterns in the qualitative results largely were congruent with the quantitative findings, they at times diverged because of the tremendous range of views and experiences expressed in the interviews. The qualitative interviews clearly demonstrated that some forms of unfair treatment, other forms of stress and the expectancy that drinking is necessary to relieve stress, fit within the framework of normative behavior for Navy culture and life. For example, the physical and verbal practices related to hazing and discipline, a form of unfair treatment that targeted vulnerable new and naïve sailors, were perceived as understated, but expected, normative and traditional actions.

In keeping with the overall work culture framework laid out in our introduction, necessary precursors to workplace harassment as a form of unfair behavior “must exist within a culture that permits and rewards harassment” (Brodsky, 1976:83). As Baillien, Neyens, and De Witte (2008) concluded in a qualitative study of negative acts, the most prominent risk

factors within work teams and organizations were norms and values supportive of harassment, bullying, violence and weak or authoritarian leadership styles. Other variables that they and others identified included extreme gender ratios and hierarchy, which are characteristic of the military. However, following the highly publicized 1991 Tailhook incident where 25 women, half of whom were officers, stated they were sexually assaulted by male officers during a heavy drinking celebration, military policy and leadership strengthened their stance against harassment of any kind. Currently, the general dictate is that officers are expected to set the tone for the chain of command below them by reinforcing the Navy's strict directives against harassment and hazing through their own words and deeds. As noted by a male officer in Pearl Harbor, "Sure, good role models are always a positive effect. If they see their bosses don't act stupid, they probably won't act stupid."

Implications of the study's findings for prevention of gender or racial harassment and associated drinking problems in the military workplace consist of several approaches. Certainly, vigilance on the part of officers and enlisted alike will be required to continue the trend reported on by many respondents of a shrinking tolerance for unfair treatment of any kind. Perhaps interactive workshops for supervisors could emphasize the importance of recognizing microaggressions (Sue et al., 2007). To the extent that unfair treatment involving gender, race, or harassment is made an increasingly unacceptable element of Navy culture, drinking as the self-medication of stress resulting from harassment or unfair behavior as detailed by Richman et al. (2002) should diminish. Overt efforts by the military to challenge the belief expressed by some personnel that alcohol is capable of reducing stress would be another element of preventing some of the alcohol problems.

Although our survey analysis did not support involvement in activities outside work as a deterrent to stress and drinking, our qualitative interview analysis did. The role of non-drinking activities to reduction of stress and related drinking may also apply to civilian occupations such as police, fire and other emergency workers who share military characteristics of imminent danger and strict hierarchical structures. A recent study of police and emergency workers found that relaxing leisure activities were the strongest predictor of coping with stress (Iwaski, Mannell, Smale, & Butcher, 2005).

A number of limitations should be noted about this study. First, since these are cross-sectional data, we cannot make any inferences about causality or temporal ordering of the measures. Second, we did not collect data on psychological distress (e.g., depression), that may partially mediate the associations between perceived unfair treatment and problem drinking (Richman et al., 2002). Third, we measured frequency but not severity of the experience of unfair treatment. Fourth, respondents may have underreported the full extent of their problem drinking or perceived unfair treatment, and if so, the strength of the associations may be underestimated. Fifth, while the findings are applicable to U.S. Navy careerists, they may not generalize to young Navy recruits serving their first enlistment or other junior personnel (Ames et al., 2009). Finally, our survey data would have been strengthened had we administered one of the validated sexual harassment instruments.

In terms of strengths, these data were part of a large, mixed methods study on drinking and military culture. While the study was carried out with the cooperation of the military, the research was led by a civilian research team, which may have mitigated some respondent concerns about study confidentiality. The survey's 62% response rate compares favorably with other military surveys (e.g., Bray et al., 2010). Most important, the study provides insights into the relationship between perceived unfair treatment and problematic drinking that can be used to develop prevention strategies for both military and civilian occupations.

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Table 1

Perceived Gender Unfair Treatment

Odds Ratios (OR) and 95% Confidence Intervals (CI) from Logistic Regression Models of Problem Drinking

	MODEL 1: unadjusted			MODEL 2: adjusted for demographic factors			MODEL 3: adjusted for demographic and psychosocial factors		
	Any Alcohol-Related Outcome			Any Alcohol-Related Outcome			Any Alcohol-Related Outcome		
	MALE	FEMALE	OR (95% CI)	MALE	FEMALE	OR (95% CI)	MALE	FEMALE	OR (95% CI)
Gender unfair treatment			1.40 (1.02, 1.92)*						
Race/ethnicity (ref: White)			2.14 (1.62, 2.84)***						
Black				1.31 (0.93, 1.83)		2.12 (1.58, 2.83)***	1.00 (0.69, 1.45)		1.54 (1.11, 2.13)**
Hispanic				0.62 (0.42, 0.90)*	0.86 (0.61, 1.23)		0.72 (0.47, 1.09)		1.05 (0.73, 1.51)
Asian/Pacific Islander				0.91 (0.57, 1.45)	0.65 (0.37, 1.14)		1.04 (0.64, 1.71)		0.68 (0.37, 1.25)
AI/AN				0.47 (0.24, 0.91)*	0.42 (0.12, 1.40)		0.44 (0.22, 0.92)*		0.47 (0.14, 1.61)
Marital status (ref: married)				0.93 (0.17, 5.24)	1.64 (0.43, 6.16)		0.93 (0.15, 5.81)		2.10 (0.51, 8.66)
Separated/divorced				0.67 (0.41, 1.10)	0.95 (0.65, 1.40)		0.71 (0.41, 1.22)		1.06 (0.71, 1.60)
Single/never married				1.15 (0.65, 2.04)	1.54 (1.01, 2.34)*		1.37 (0.74, 2.54)		1.56 (0.99, 2.45)
Rank (ref: officer)									
Enlisted				1.96 (1.29, 2.99)**	1.71 (1.03, 2.84)*		1.75 (1.13, 2.73)*		1.52 (0.90, 2.57)
Age (ref: 41-60)									
25-30				1.50 (0.97, 2.34)	1.13 (0.73, 1.76)		1.06 (0.66, 1.70)		0.88 (0.56, 1.41)
31-35				1.50 (1.03, 2.19)*	1.07 (0.70, 1.63)		1.27 (0.85, 1.89)		0.87 (0.56, 1.36)
36-40				1.37 (0.95, 1.93)	0.99 (0.66, 1.48)		1.09 (0.74, 1.60)		0.94 (0.62, 1.43)
Work Problems Frequency									
Work/Family Stress							1.39 (1.21, 1.59)***		1.33 (1.15, 1.54)***
Pro-Social Activities							0.99 (0.85, 1.16)		1.07 (0.91, 1.27)
Expect drinking to alleviate stress							0.99 (0.96, 1.01)		1.02 (0.99, 1.05)
							2.02 (1.70, 2.40)***		1.84 (1.54, 2.20)***

* p < 0.05,

** p < 0.01,

 $p < 0.001$. Significant associations with having at least one problem drinking outcome (DSM-IV, CAGE, weekly frequent heavy drinking) are highlighted in boldface).

Table 2

Perceived Racial/Ethnic Unfair Treatment

Odds Ratios (OR) and 95% Confidence Intervals (CI) from Logistic Regression Models of Problem Drinking

	MODEL 1: unadjusted			MODEL 2: adjusted for demographic factors			MODEL 3: adjusted for demographic and psychosocial factors		
	Any Alcohol-Related Outcome			Any Alcohol-Related Outcome			Any Alcohol-Related Outcome		
	MALE	FEMALE	OR (95% CI)	MALE	FEMALE	OR (95% CI)	MALE	FEMALE	OR (95% CI)
Unfair treatment – racial/ethnic	1.60 (1.19, 2.15)**	1.60 (1.18, 2.18)**		1.66 (1.21, 2.28)**	1.69 (1.21, 2.36)**		1.27 (0.94, 1.31)		1.24 (0.92, 1.30)
Race/ethnicity (ref: White)									
Black				0.58 (0.39, 0.86)**	0.80 (0.56, 1.14)		0.69 (0.45, 1.04)		1.01 (0.69, 1.48)
Hispanic				0.88 (0.55, 1.41)	0.67 (0.38, 1.18)		1.02 (0.63, 1.68)		0.69 (0.38, 1.27)
Asian/Pacific Islander				0.40 (0.21, 0.79)**	0.36 (0.11, 1.23)		0.41 (0.20, 0.84)*		0.44 (0.13, 1.52)
AI/AN				0.92 (0.16, 5.17)	1.61 (0.43, 6.04)		0.92 (0.15, 5.74)		2.06 (0.50, 8.56)
Marital status (ref: married)									
Separated/divorced				0.67 (0.40, 1.10)	0.93 (0.63, 1.36)		0.71 (0.41, 1.22)		1.05 (0.70, 1.58)
Single/never married				1.09 (0.62, 1.95)	1.57 (1.04, 2.38)*		1.32 (0.71, 2.45)		1.54 (0.98, 2.41)
Rank (ref: officer)									
Enlisted				1.94 (1.27, 2.99)**	1.88 (1.14, 3.10)*		1.74 (1.12, 2.71)*		1.61 (0.96, 2.72)
Age (ref: 41–60)									
25–30				1.55 (0.99, 2.42)	1.08 (0.70, 1.68)		1.08 (0.67, 1.74)		0.85 (0.54, 1.35)
31–35				1.50 (1.03, 2.19)*	1.06 (0.69, 1.60)		1.27 (0.85, 1.89)		0.85 (0.55, 1.33)
36–40				1.36 (0.94, 1.97)	0.98 (0.65, 1.45)		1.09 (0.74, 1.61)		0.92 (0.61, 1.41)
Work problems frequency							1.36 (1.19, 1.56)***		1.35 (1.17, 1.56)***
Work/family stress							0.99 (0.85, 1.15)		1.13 (0.95, 1.32)
Pro-social activities							0.99 (0.96, 1.01)		1.02 (0.99, 1.05)
Expect drinking to alleviate stress							2.02 (1.70, 2.40)***		1.85 (1.55, 2.21)***

* p < 0.05,

** p < 0.01,

 $p < 0.001$. Significant associations with having at least one problem drinking outcome (DSM-IV, CAGE, weekly frequent heavy drinking) are highlighted in boldface.