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ALCOHOL USE, DEPRESSION, AND HIGH RISK OCCUPATIONS AMONG YOUNG ADULTS IN THE UKRAINE

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Abstract

This study examined alcohol consumption in relation to anxiety, depression, and involvement with high risk occupations (HRO; e.g., coal miners), among young adults in the Ukraine (aged 18–25) (N=192; 60.9% male; 100% Caucasian). Participants were grouped based on drinking status: (1) current drinkers (CDs; n=132) or (2) nondrinkers (NDs; n=60). Questionnaires assessed frequency of alcohol use, motives for drinking, problem identification, as well as anxiety and depression (i.e., Hamilton scales). Bivariate analyses showed that CDs were more likely than NDs to be single, have a HRO, and have greater anxiety and depression; for example, 91.7% of CDs had a HRO as compared to 56.7 % of NDs. Drinking status was not significantly related to age or gender. Among CDs, common motives for use included: to reduce anxiety and fears (60.6%), because my friends use alcohol (75.0%), to fight stress (78.8%), and to increase self-esteem (64.4%). Among CDs, past month drinking days were: 25% 1–2 days, 37.9% 3–7 days, 25% 8–21 days, and 12.1% 22–30 days. Regarding problem identification, 29.5% reported not having a problem, 34.8% reported possibly having a problem, 21.9% reported having a problem but not needing help, and 13.6% reported having a problem/needing help. Young adults involved in HRO may be a particularly high risk population given increased likelihood of alcohol use, anxiety, and depression. Early intervention strategies that incorporate motivational interviewing approaches to address coping and social motives for use may be beneficial to address substance use and mental health problems.

Keywords

alcohol use; depression; high risk occupations; anxiety; motivational interview

Introduction

Youth in the Ukraine have high levels of alcohol consumption (World Health Organization (WHO), 2011). Although the legal drinking age is 18, beer has no minimum drinking age (“Ministry of Health of Ukraine,” 2010). Ukrainian young adults were raised following the collapse of the Soviet Union in 1991, a time period of socio-economic instability and

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increased alcohol consumption (Zagraev, 2009). Few studies have examined correlates of alcohol use among young adults in the Ukraine.

Studies from the U.S. (Jessor, 1991) and Europe (Kuntsche, Rehm, & Gmel, 2004) show that alcohol use and other risk behaviors cluster during adolescence and young adulthood. Further, some clinicians view risk taking as a non-suicidal self-harm behavior (Klonsky, 2007; National Institute for Clinical Excellence, 2004), which includes alcohol use and involvement with high risk occupations (HRO; e.g., coal mining). In the Ukraine, approximately 500,000 people (EIA (U.S. Energy Information Administration), 2013) are coal miners; similarly, this occupation is common in the U.S. (e.g., 90,000 people) (EIA, 2009; Maio et al., 2005). Ukrainian youth may become involved with HRO due to economic difficulties; they may also increase the risk from HRO by ignoring safety rules while working (S Polshkova & Chaban, 2010).

To inform interventions, young adults admitted to an inpatient general hospital in the Ukraine were surveyed. Based on prior literature, we hypothesized that drinking status would be positively associated with older age, male gender, being single or divorced (Krupnov & Shutov, 2011; O'Malley P; Substance Abuse and Mental Health Service Administration, 2013), ignoring safety rules (Singleton, Bumpstead, O'Brien, Lee, & Meltzer, 2003; Sise et al., 2009), and having greater anxiety and depression (Casey & Jones, 2010; Jacobus & Tapert, 2013). Also, we examined the frequency of consumption, motives, and perceived problem identification among drinkers.

Method

Adults (ages 18–60) were recruited during their inpatient stay at the Occupational Diseases Hospital (ODH) in Kiev, Ukraine (2010–2013), which provides general medical care as well as psychiatric services. In total, 477 were enrolled; 57 patients were excluded (e.g., suicidal, seizure disorder, psychosis) (SG Polshkova, 2012). In order to inform screening and intervention efforts among young adults, this paper examined participants' ages 18–25 (n=192). Participants provided informed consent and completed a 50 minute assessment. Demographic questions included age, gender, and occupation [coded as a HRO (coal miner; i.e., blaster, drilling rig operator, etc.) or other non-HRO] (Krupnov & Shutov, 2011). Past month days of alcohol use was assessed: 0, 1–2, 3–7, 8–21, and 22 to everyday (LaBrie, Lac, Kenney, & Mirza, 2011). Drinking motives were assessed, including “reduce anxiety and fears”, “improve mood”, “improve my communication skills”, “decrease trouble sleeping”, “because my friends use alcohol”, “fight stress”, “increase self-esteem”. Next, participants were asked: “Do you usually ignore safety rules while working?” (Klonsky, 2007) (yes/no) and “Do you have alcohol problems that require intervention?” (“have problem, need help”; “have problem, don't need help”; “Possibly a problem”; “No problem, no help”). Clinicians rated participants using the 14-item Hamilton anxiety (14 = disorder) and depression (8 = disorder) scales; responses range from 0 (no) to 4 (severe) (Hamilton, 1959; Strik, Honig, Lousberg, & et al., 2001).

Data Analysis

Data was analyzed using SAS version 9.3 (SAS 2011). Analyses compared participants based on drinking status (current drinker = CD; non-drinker = ND) and characteristics of CDs were described.

Results

Comparison of Drinking Status

Overall, 76.7% reported being CDs (n=132 CD; n=60 ND; Table 1). Drinking status was less likely among married participants. CDs were more likely than NDs to report HRO, ignoring safety rules while working, anxiety and depression. Logistic regression analysis examining correlates of drinking status was significant; being married, having a HRO, and depression were significant correlates (Table 2).

Characteristics of CDs

Among CDs (n=132), past month drinking days were: 25% 1–2, 37.9% 3–7, 25% 8–21, and 12.1% 22–30. Participants with HRO reported frequent drinking than those with non-HRO [e.g., daily (9.7% vs. 2.7% respectively), 8–21 days (20.0% vs. 5.4%, respectively), and 3–7 days (31.6% vs. 2.7%, respectively)]. Common drinking motives included: “reduce anxiety and fears” (60.6%), “improve mood” (49.2%), “improve communication skills” (43.9%), “decrease trouble sleeping” (48.5%), “because my friends use alcohol” (75.0%), “fight stress” (78.8%), and “increase self-esteem” (64.4%). Regarding problem identification, 29.5% reported none, 34.8% reported possibly, 21.9% reported a problem but not needing help, and 13.6% reported a problem and needing help.

Discussion

Our data shows that seven out of ten young adults were current drinkers, exceeding national data from the Ukraine (WHO, 2011), with more than 1 in ten reporting drinking almost daily. Further, more frequent drinking was noted among young adults with HRO, increasing the risk for future injuries. The lack of gender differences in drinking status found in this sample may reflect the high level of involvement in HRO.

Findings may help inform early intervention approaches for young adults in the Ukraine, which are lacking despite positive findings for youth in the U.S. (Harris et al., 2012; Jensen et al., 2011; Walton et al., 2010; Yuma-Guerrero et al., 2012). Motivational interviewing (Miller & Rollnick, 2013) may be a useful approach because few youth were concerned about their drinking. Such approaches should be tailored to address drinking motives, which similar to American studies (Grant, Stewart, O'Connor, Blackwell, & Conrod, 2007) commonly included coping with negative affect as well as social influences. Given the high level of anxiety and depression found among current drinkers, intervention should also address co-morbid mental health issues.

Although novel, data is limited to youth presenting to a hospital setting and may not generalize to young people in other countries. Future longitudinal studies are needed with

more detailed assessments to examine markers of alcohol use trajectories among Ukrainian youth.

Conclusions

Young adults in the Ukraine who are involved in HRO may be a particularly at risk for future injury, substance use and mental health problems. Early intervention strategies for Ukrainian youth may benefit from addressing coping with negative affect and social motives for use in order to alter substance use and mental health problem trajectories.

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Table 1

Descriptive characteristics of groups and the total sample.

Variables	Current Drinkers (n=132) n(%) / M(SD)	Non-Drinkers (n=60) n(%) / M(SD)	Total (n=192) n(%) / M(SD)
Age	20.3(1.8)	20.1(1.9)	20.3(1.8)
Gender(Female)	49(37.1%)	26(43.3%)	75(39.1%)
Marital Status ***			
Single	21(15.9%)	5(8.3%)	26(13.5%)
Married	32(24.2%)	44(73.3%)	76(39.6%)
Divorced or widow	45(34.1%)	2(3.3%)	47(24.5%)
Live with Partner	34(25.8%)	9(15.0%)	43(22.4%)
Ignore Safety Rules **	119(90.2%)	43(71.7%)	162(84.4%)
Depression ***	14.7(5.5)	9.2 (4.5)	13.0(5.7)
Anxiety ***	21.7(5.0)	16.5(6.7)	20.0(6.0)
High risk Occupation ***	121(91.7%)	34(56.7%)	155(80.7%)
Anxiety *			
<17 mild	32(24.2%)	25(41.7%)	57(29.7%)
18–24 mild to moderate	54(40.9%)	24(40.0%)	78(40.6%)
25–30 moderate to severe	46(34.8%)	11(18.3%)	57(29.7%)
Depression ***			
<7 no depression	16(12.1%)	23(38.3%)	39(20.3%)
8–13 mild	56(42.4%)	25(41.7%)	81(42.2%)
14–18 moderate	40(30.3%)	10(16.7%)	50(26.0%)
19–22 severe	13(9.8%)	2(3.3%)	15(7.8%)
25–30 very severe	7(5.3%)	0(0%)	7(3.6%)

Note:

*
p<0.05,**
p<0.01,***
p<0.001

Table 2

Logistic regression analysis comparing drinking status.

Variable	AOR (95% CI)
Age	1.29 (0.97–1.70)
Gender(Female)	1.71 (0.62–4.69)
Married Status	
Divorced or widow vs married	35.3 (6.19–201.43) ***
Live with Partner vs married	2.84 (0.97–8.40)
Single vs Married	7.43 (1.93–28.59) **
Depression	1.27 (1.10–1.46) **
Anxiety	1.05 (0.96–1.16)
Ignore Safety Rules	5.28 (0.98–28.42)
High Risk Occupation (HRO)	13.7 (3.16–59.69) ***

Note:

*
p<0.05,**
p<0.01,***
p<0.001;

AOR= Adjusted Odds Ratio; CI= Confidence Interval