THE RELATIONSHIP BETWEEN COLLEGE STUDENTS’ RESILIENCE LEVEL AND TYPE OF ALCOHOL USE

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Abstract. Background. Outcome research regarding the level of college student alcohol use (Johnston, O’Malley, Bachman, 2002; Engs, Hanson, 1999; Hersh, Hussong, 2006; Knight et al., 2002) suggests that these studies may mask a more complex relationship between different levels of alcohol use and the psychosocial characteristics of the user. However, there have been few studies that have explored the relationship between level of use and particular psychosocial traits (White, Jamieson-Drake, Swartzwelder, 2002). Purpose. The purpose of this study is to examine the relationship in a college student population between the psychological trait of resilience and the following five different levels of alcohol use: binge drinking, heavy drinking, moderate drinking, light drinking, and abstinence from drinking. Material and methods. Responses by a sample of 88 male and female volunteer college students on the Connor-Davidson Resilience Scale (Connor, Davidson, 2003) and a researcher-developed survey of alcohol use were compared to determine the relationship between resilience level and alcohol consumption level. Results. A significant negative correlation was found between resilience level and alcohol consumption level. Female mean resiliency scores (M = 73.56) were significantly lower than male mean resiliency scores (M = 77.84). One-half of students were abstainers and one-fourth rated themselves to be heavy or binge drinkers. Conclusions. Results would suggest that students who drink struggle to moderate their alcohol consumption and that college personnel can use resilience factors as a framework to design both preventative and intervention services, with special focus on building resilience factors in the female population.

Keywords: addiction, resilience, alcohol.

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A number of studies have measured types of college student alcohol use (Engs, Hanson, 1999; Harvard School of Public Health, 2003; Hersh, Hussong, 2006; Johnston, O’Malley, Bachman, 2002; Knight et al., 2002). There is also an abundance of research that is variable-centered and focuses on linear relationships between type of alcohol use and its outcomes (Colder, Chassin, 1999; Hersh, Hussong, 2006; Shedler, Block, 1990; Windle, Windle, 1996). It has been suggested that this type of outcome research may mask a more complex relationship between different types of alcohol use and the psychosocial characteristics of the user (White, Jamieson-Drake, Swartzwelder, 2002), yet there have been few studies that have explored the relationship between type of use and particular psychosocial traits. This study seeks to extend current research by exploring the relationship between the psychosocial trait of resilience and the type of alcohol use of college students.

**TYPE OF COLLEGE STUDENT ALCOHOL USE AND ASSOCIATED OUTCOMES**

Abstainers are defined as individuals who practice complete abstinence from alcohol use (Dawson, Goldstein, Grant, 2007; Merriam-Webster, 2009; National Institute of Alcohol Abuse and Alcoholism, 2004). Estimates of the percentage of college students who are abstainers range from 11 % to 38 %, with 30 % being most commonly reported (Johnston et al., 2002; Meilman, Presley, Cashin, 1997; Wechsler, Dowdall, Maenner, Gledhill-Hoyt, Lee, 1998). Cotner (2002) reported “there have been few studies conducted specifically examining abstainers in the college environment ... and of the studies conducted most reached divergent conclusions” (p. 17) regarding associated outcomes.

Definitions in the literature for light drinking ranged from consuming alcohol once a month (Hersh, Hussong, 2006) to consuming more alcohol than an abstainer, but less than a drink per day (Testa, Quigley, Eiden, 2003). Engs and Hanson (1999) found that 21 % of college students were considered light drinkers. It has been found that light drinkers have the lowest level of negative effects among types of alcohol users (International Center for Alcohol Policies, 2003).

The U.S. Department of Agriculture (USDA) and U.S. Department of Health and Human Services (DHHS) guidelines define moderate drinking
as two drinks or less per day for males and one drink or less per day for females (Nathan, Wallace, Zweben, Horvath, 2004). Engs and Hanson (1999) reported that 36% of college students were considered moderate drinkers. Although moderate drinking has been linked to numerous health benefits (Baum-Baicker, 1985; Dufour, Archer, Gordis, 1992; Marmot, Brunner, 1991), myriad risks have also been identified for moderate drinking, including stroke (Camargo, 1989), motor vehicle accidents (Council on Scientific Affairs, 1986), medication interactions, cancer (Willett et al., 1987), birth defects, and a possible progression to heavier alcohol consumption (National Institute of Alcohol Abuse and Alcoholism, 1992; Nathan et al., 2004).

Heavy drinking has been defined in the literature as an excessive rate of consumption over a period of a week. The established minimum consumption point is 14 or more drinks per week for males and seven or more drinks per week for females (Centers for Disease Control, 2008; Reid, Fiellin, O’Connor, 1999). Wolaver (2002) found that heavy drinking was found to negatively affect the drinker both during “intoxication and for periods of time after consumption” (p. 415), including a reduction in future weekly earnings. Additionally, Manninen, Poikolainen, Vartiainen, and Laattkainen (2006) found a correlation between clinical depression and heavy alcohol consumption. The Centers for Disease Control (CDC) (2008) list problems associated with heavy alcohol consumption, such as cancer, cirrhosis, elevated blood pressure, various psychological disorders, injuries, alcohol abuse or dependence, and violence potential.

Binge drinking has been defined as consuming five or more drinks in a row for a male and four or more drinks in a row for a female, a minimum of one time over a two-week period (Harvard School of Public Health, 2003; National Institute on Alcohol Abuse and Alcoholism, 2002). Various studies (CDC, 1997; Substance Abuse and Mental Health Services Administration, 1999; Weschler, 2000; Wechsler, Austin, 1998) have found the binge drinking rate among college students to be approximately 40%. Binge drinking has been linked to fatalities, alcohol poisoning, hangovers, and academic problems like missed classes, reduction in classroom performance, lowered grades, dropping out, and school failure (Jennison, 2004; Wechsler, Davenport, Dowdall, Moeykens, Castillo, 1994; Wechsler, Isaac, 1992).
INDIVIDUAL RESILIENCE

Defining Resilience

Webster’s New World Dictionary (Neufeldt, Sparks, 2003) defines resilience as achievement of positive outcomes despite risk. In support of this definition, Garbarino, Dubrow, Kostelny, and Pardo (1992) define resilience as an individual’s ability to adapt under stressful circumstances. Similarly, Wolin and Wolin (1993) define resilience as achievement of some level of recovery from a traumatic experience. These three definitions all describe a resilient person as being able to achieve positive outcomes despite challenges. According to Grotberg (1995), resilience is important because it is the human capacity to face, overcome, and be strengthened by adversities in life. On the other hand, a non-resilient person is described as an individual who succumbs to environmental risk (Rigsby, 1994). Grotberg (1995) suggests that everyday people experience stressful situations that leave them vulnerable. However, she posits that whether these individuals are crushed or strengthened by adverse situations depends on his or her level of resilience.

Resilience Factors

VanBreda (2001) suggests that an individual’s resilience level is calculated by the ratio of protective factors to the presence of hazardous factors. There are four main patterns of resilience found in the literature (Polk, 1997; VanBreda, 2001): dispositional, relational, situational, and philosophical. In the dispositional pattern, the factors that promote resilience include a sense of autonomy or self-reliance, a sense of self-worth, good physical health, and well-maintained appearance. The relational pattern encompasses factors related to the quality of relationships with others. The situational pattern includes factors such as being able to problem-solve, evaluate a situation and respond, and take action in response to stressful situations. Lastly, the philosophical pattern is described as an individual’s worldview or life paradigm which can include beliefs that promote resilience, such as being optimistic, looking for meaning in all situations, the belief that life is purposeful, and the belief that self-development is important.

Charney (2004) identified ten individual characteristics from the literature that have been shown to be correlated repeatedly with resilience:
(a) optimism, (b) altruism, (c) having a moral compass, (d) faith or spirituality, (e) humor, (f) having a positive role model, (g) social supports, (h) facing fear or being able to leave one’s comfort zone, (i) feeling that one has a mission or meaning in life, and (j) being open to challenges. After reviewing these lists of qualities of resilient individuals, it appears most of these qualities are centered on social competence. Benard (1991) found that social competence is a very common attribute among resilient individuals and includes qualities such as flexibility, responsiveness, empathy, caring, communication skills, a sense of humor, and other pro-social behavior. Conversely, Brooks and Goldstein (2001), as well as Tedeschi and Kilmer (2005), reported that the key factors that predict if a person lacks resilience are: (a) low activity level, (b) unresponsiveness to people, (c) poor communication skills, (d) poor social orientation, (e) lack of motivation to improve themselves, (f) lack of internal locus of control, (g) lack of ability to focus, (h) a negative disposition, (i) pessimism, (j) lack of self-efficacy and self-confidence, and (k) lack of support and structure in their environment.

Outcomes Related to Resilience and Lack of Resilience

Resilience contributes to an easy temperament that promotes positive responses from others, self-esteem, self-efficacy, independence, self-reliance and environmental opportunities (Kirby, Fraser, 1997; Werner, 1994). Individuals who are resilient tend to understand they cannot control everything yet do have power to influence what happens next. Consequently, they are more proactive when faced with challenges and more likely to adapt to difficult circumstances by using both internal and external resources (Alvord, Grados, 2005). Block (2002) posits that as a result of this adaptive flexibility, individuals with higher levels of resilience are more likely to experience positive affect, have higher levels of self-confidence, and display better psychological adjustment than individuals with low levels of resiliency. A positive outcome for students with high resilience levels is they are likely to also exhibit academic resilience and sustain high levels of achievement motivation and performance despite stressful conditions that place them at risk of doing poorly in school. Conversely, students who lack resilience tend to have a hard time adjusting to stressors, do not enjoy class, participate less in class, and have lower self-esteem than students with high resilience (Block, 2002; Wang, Haertal, Wahlberg, 1998).
Resilience and Alcohol Use

Several studies suggest there is a relationship between the lack of resilience factors and alcohol use. Wong et al. (2006) found that low initial resiliency levels in children predicted onset of alcohol use. As mentioned earlier, one of the qualities of an individual who is resilient is having a good support system. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) (1997) reports that individuals who lack parental support, have poor communication with their parents, and lack monitoring by their parents tend use alcohol more frequently than individuals that have parental support, are monitored by their parents, and have good communication with their parents. The National Longitudinal Study on Adolescent Health (1997) reports that youth who felt support from their parents and school were less likely to engage in underage alcohol use. Brady and Sonne (1999) report there is a high possibility that stress and the body’s response to stress play a role in the vulnerability to initial alcohol use and drug use. Studies indicate individuals with low resiliency levels may be more likely to use ineffective coping skills, such as using drugs or alcohol, to manage stressors (Benard, 1991; Block, 2002; Brady, Sonne, 1999; Grotberg, 1995).

Researchers are beginning to explore whether specific psychological characteristics provide protection against excessive alcohol use. Wong et al. (2006) found that children with higher resiliency levels were less likely to begin using alcohol. People who are better at describing negative emotions, a characteristic of resilience, have been found to consume less alcohol (Kashdan, Ferssizidis, Collins, Muraven, 2010). Additionally, a study by Logan, Kilmer, and Marlatt (2010) found a relationship between several of positive psychology’s character virtues and lower risk drinking behaviors.

Although studies have examined the relationship between resilience factors and alcohol use in general (Benard, 1991; Block, 2002; Brady, Sonne, 1999; The National Institute on Alcohol and Abuse and Alcoholism, 1997; The National Longitudinal Study on Adolescent Health, 1997), there is limited research on the relationship between resilience level and specific types of alcohol use. The purpose of this study is examine the relationship in a college student population between resilience level and the following five types of alcohol use: binge drinking, heavy drinking, moderate drinking, light drinking, and abstinence from drinking.
Definition of Terms

Abstainers are defined as those who choose not to consume alcohol at any level.

Light drinkers are defined as individuals who consume alcohol at a rate of less than one drink per day.

Moderate drinkers are defined as females who consume 1 drink per day and males who consume 1-2 drinks per day.

Heavy drinkers are defined as males who consume more than 14 drinks per week and females who consume more than 7 drinks per week.

Binge drinkers are defined as males who consume five or more drinks in a row and females who consume four or more drinks in a row, at a minimum of one time over a two-week period.

METHOD

Participants

Participants were 45 male and 43 female undergraduate students enrolled in three psychology courses at a university located in a rural Midwestern community in the United States who were chosen through a volunteer process. The researcher coordinated with undergraduate psychology professors to identify classes from which students could be recruited. Those classes were randomly assigned numbers to determine the order of classes from which volunteers would be solicited.

Instrumentation

The Connor-Davidson Resilience Scale (CD-RISC), first introduced in 2003, was used to measure resiliency level. Characteristics of resilience upon which the CD-RISC is based include hardiness, control, self-esteem, clear goals, self-confidence, problem solving skills, adaptability to change, affection, and a sense of humor in times of stress (Connor, Davidson, 2003). There are numerous connections between the questions asked on the scale and the resilience identifiers enumerated in the previously cited research. The CD-RISC, consisting of 25 self-rated items, is reported to have been tested in both the community and clinical samples and has demonstrated good internal consistency and test-retest reliability of .87 to .89 (Connor, Davidson, 2003; Connor, Zhang, 2006).
Due to the disparities between drinking typology definitions for males and females, a different short self-report questionnaire was developed for each gender to determine frequency of alcohol use that would reflect the different level of use definitions for each category by gender. In addition to demographic information, participants were asked three questions regarding their drinking frequency so that they could be classified into the usage level categories defined earlier: abstainers, light drinkers, moderate drinkers, heavy drinkers, and binge drinkers.

**Procedure**

The CD-RISC and the gender-specific researcher-designed alcohol use survey were administered by the researcher in a classroom setting to a sample of 45 male and 43 female students enrolled in three undergraduate psychology classes at a university in a rural Midwestern community in the United States who volunteered to participate in the study. Both the CD-RISC and the alcohol use surveys were correspondingly coded with an identification number to assure a confidential matched set of responses and to minimize any risk to participants. Survey results were then compiled and analyzed.

**Results**

As shown in Table 1, about half (48.86%) of respondents were abstainers, while approximately one-fourth (23.87%) fell in the heavy or binge drinking categories.

<table>
<thead>
<tr>
<th>Level</th>
<th>Percentage</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstain</td>
<td>48.86</td>
<td>43</td>
</tr>
<tr>
<td>Light</td>
<td>14.77</td>
<td>13</td>
</tr>
<tr>
<td>Moderate</td>
<td>12.50</td>
<td>11</td>
</tr>
<tr>
<td>Heavy</td>
<td>4.55</td>
<td>4</td>
</tr>
<tr>
<td>Binge</td>
<td>19.32</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>88</td>
</tr>
</tbody>
</table>

When alcohol use results were disaggregated by gender several disparities were noted. As seen in Table 2, males displayed a higher
percentage in the light drinker group. There were approximately three times as many females in the moderate drinker group than males; however, in the heavy and binge drinking categories, males outnumbered females by 62.5%. A chi square test comparing gender to type of alcohol use showed the difference among the percentages was not significant, $X^2(4, N=88) = 4.475, p > .05$.

Table 2. Percentage of alcohol type by gender

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Gender</th>
<th>Total</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstain</td>
<td>Male</td>
<td>45</td>
<td>21</td>
<td>46.67</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>43</td>
<td>22</td>
<td>51.13</td>
</tr>
<tr>
<td>Light</td>
<td>Male</td>
<td>45</td>
<td>8</td>
<td>17.78</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>43</td>
<td>5</td>
<td>11.63</td>
</tr>
<tr>
<td>Moderate</td>
<td>Male</td>
<td>45</td>
<td>3</td>
<td>6.67</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>43</td>
<td>8</td>
<td>18.60</td>
</tr>
<tr>
<td>Heavy</td>
<td>Male</td>
<td>45</td>
<td>3</td>
<td>6.67</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>43</td>
<td>1</td>
<td>2.33</td>
</tr>
<tr>
<td>Binge</td>
<td>Male</td>
<td>45</td>
<td>10</td>
<td>22.22</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>43</td>
<td>7</td>
<td>16.28</td>
</tr>
</tbody>
</table>

Mean resilience scores were sorted by alcohol use type. As indicated in Table 3, the results ranged from a mean score of 77.12 for the abstainers group to 71.06 for the binge drinkers group, with the light and moderate drinkers being roughly equivalent (76.46 and 76.82). Using a one way analysis of the variance (ANOVA1), the difference among the means was not found to be significant, $F(4,83) = 0.986, p > .05$. However, when level of alcohol use was correlated to individual resiliency level, a significant negative correlation was found, with lower resiliency corresponding to higher alcohol consumption rates, $r = -0.19, p < .05$.

Table 3. Mean resilience scores by alcohol use type

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstain</td>
<td>77.12</td>
<td>10.22</td>
<td>43</td>
</tr>
<tr>
<td>Light</td>
<td>76.46</td>
<td>13.54</td>
<td>13</td>
</tr>
<tr>
<td>Moderate</td>
<td>76.82</td>
<td>10.43</td>
<td>11</td>
</tr>
<tr>
<td>Heavy</td>
<td>75.75</td>
<td>4.97</td>
<td>4</td>
</tr>
<tr>
<td>Binge</td>
<td>71.06</td>
<td>10.25</td>
<td>17</td>
</tr>
</tbody>
</table>
As shown in Table 4, when resilience scores were disaggregated by gender, male mean resilience scores (77.84) were more than four points higher than female scores (73.56). When compared using an independent-measure t-test (INDT) the difference was found to be significant, \( t(86) = 1.861, p < .05 \).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>77.84</td>
<td>10.34</td>
<td>45</td>
</tr>
<tr>
<td>Female</td>
<td>73.56</td>
<td>11.02</td>
<td>43</td>
</tr>
</tbody>
</table>

Over 80% of the moderate alcohol use group displayed high resilience (81.82%), as did about half of both the light use (53.85%) and abstainer (53.49%) groups. In contrast, as can be seen in Table 5, only approximately one-third of the binge drinkers (35.29%) and one-fourth of the heavy drinkers (25.00%) displayed resilience scores above the mean. The difference among the percentages was not significant, \( \chi^2(4, N = 88) = 7.044, p > .05 \).

<table>
<thead>
<tr>
<th>Alcohol use</th>
<th>Total</th>
<th>High resilience number</th>
<th>High resilience percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstain</td>
<td>43</td>
<td>23</td>
<td>53.49</td>
</tr>
<tr>
<td>Light</td>
<td>13</td>
<td>7</td>
<td>53.85</td>
</tr>
<tr>
<td>Moderate</td>
<td>11</td>
<td>9</td>
<td>81.82</td>
</tr>
<tr>
<td>Heavy</td>
<td>4</td>
<td>1</td>
<td>25.00</td>
</tr>
<tr>
<td>Binge</td>
<td>17</td>
<td>6</td>
<td>35.29</td>
</tr>
</tbody>
</table>

**DISCUSSION**

This study was conducted to explore the relationship between the psychosocial trait of resilience and the type of alcohol use of college students. The finding that approximately half of college students in this sample abstain from using alcohol was higher than existing studies (Johnston, O'Malley, Bachman, 2002; Meilman, Presley, Cashin, 1997; Wechsler, Dowdall, Maenner, Gledhill-Hoyt, Lee, 1998), and the
percentage of heavy and binge drinkers was lower at approximately 25% as compared to approximately 40% in other studies (CDC, 1997; Substance Abuse and Mental Health Services Administration, 1999; Weschler, 2000; Wechsler, Austin, 1998). It is interesting that the two largest groups in the study sample were those at the extremes of alcohol use. It seems to imply that many college students who drink may struggle with moderating alcohol use. This finding supports what previous studies (Benard, 1991; Block, 2002; Brady, Sonne, 1999; Grotberg, 1995; VanBreda, 2001) have suggested, that college personnel and mental health professionals need to take a proactive and active stance towards providing both preventative and intervention services related to the use and abuse of alcohol by students.

The results related to resilience provide some direction on how to focus those efforts. The negative correlation found between alcohol use and resilience level suggests it could be predicted which students have a higher probability to use alcohol in excess by assessing resilience levels (Benard, 1991; Block, 2002; Brady, Sonne, 1999; Grotberg, 1995; Wong et al., 2006). It also suggests that the resilience factors measured by the CD-RISC can be used as a framework to provide direction for both determining which factors can be strengthened or developed in students at risk, and for creating campus programming designed to build resilience factors in the student population as a whole. The resilience level for females was significantly lower than the male resilience level, perhaps evidence that intervention efforts to build resilience factors may need to be gender-specific.

Further research is needed to replicate these findings in other settings and to explore in more depth the preliminary trends suggested by the outcomes of this study. For example, it would be beneficial to be able to determine which particular resilience factors are most protective for students displaying specific alcohol use levels. Further exploration of gender differences and the connection to particular patterns of resilience factors also seems warranted. Because of the small number of participants in many of the five categories of alcohol use, most notably the heavy drinker category, replicating the study at other institutions would allow data to be combined to form larger N’s for more valid chi-square tests.
References


**STUDENTŲ ATSPARUMO LYGMENS IR ALKOHOLIO VARTOJIMO YPATUMŲ SĄSAJOS**

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**Santrauka.** *Mokslinė problema.* Tyrimuose, kuriuose analizuojamos studentų alkoholio vartojimo pasekmės (Johnston, O’Malley, Bachman, 2002; Engs, Hanson, 1999; Hersh, Hussong, 2006; Knight et al., 2002), dažnai teigama, kad alkoholio vartojimas gali maskuoti gerokai sudėtingesnę skirtingo alkoholio vartojimo lygmens ir psichologinių-socialinių jį vartojančio asmens charakteristikų sąveiką. Tačiau tyrimų, kuriuose būtų nagrinėjamos alkoholio vartojimo sąsajas su konkrečiomis psicosocialinėmis charakteristikomis, yra nedaug (White, Jamieson-Drake, Swartzwelder, 2002). Šio tyrimo tikslas yra įvertinti studentų psichologinio atsparumo bruožo sąsajas su penkiais skirtingais alkoholio vartojimo lygiais: visišku alkoholio nevartojimu, labai retu vartojimu (apie 1 kartą į mėnesį), vidutiniu vartojimu (ne daugiau nei du standartiniai alkoholio vienetai per dieną vyrui ir ne daugiau kaip vienas mėnesį), intensyviu vartojimu (didesnis nei vidutinis alkoholio vartojimas per visą savaitę) ir alkoholio vartojimu užgėrimais. *Methodika.* Siekiant atskleisti alkoholio vartojimo ir psichologinio atsparumo sąsajas, tyrimo metu analizuojami 88 savanorių studentų, vyrų ir moterų, atsakymai pagal Connor-Davisono atsparumo skalėje pateiktus klausimus (Connor, Davidson, 2003) ir tyrimo autorių sukurtą klausimyną, skirtą įvertinti alkoholio vartojimo ypatumus. Tyrimo rezultatai atskleidė neigiamas atsparumo lygmens ir alkoholio vartojimo intensyvumo sąsajas. Moterų vidutinis atsparumo įvertis (M = 73,56) buvo statistiškai mažesnis nei vyrų (M = 77,84). Maždaug pusė tirtų studentų save priskyrė abstinentams, apie ketvirtadalis save apibūdino kaip vartojančius alkoholij labai intensyviai ar geriančius užgėrimais. *Išvados.* Tyrimo rezultatai rodo, kad gana didelė dalis alkoholij vartojančių studentų reikia padėti normalizuoti vartojimo intensyvumą. Aukščiosios mokyklos personalas gali panaudoti atsparumo faktorių kaip gaires kuriant tiek alkoholio vartojimo prevencijos, tiek intervencijos paslaugas. Ypatingas dėmesys turėtų būti skiriamas moterų atsparumo stiprinimui.

**Pagrindiniai žodžiai:** priklausomybė, atsparumas, alkoholis.

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