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Age and Marital Status Predictors of Binge Alcohol Use among Adults with Major Depressive Episode

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Abstract

This study aims to examine if age and marital status can predict the risk for binge alcohol use (BAU) among adults with a major depressive episode (MDE). To achieve this goal, data from the Substance Abuse and Mental Health Services Administration's (SAMHSA) 2018 National Survey for Drug Use and Health (NSDUH) were extracted and analyzed. The unweighted sample included 6,999 adults with MDE representing a weighted population size of 33,900,452.122 in the US. The findings of this retrospective research confirmed that age and marital status significantly predict BAU in the past month among adults with an MDE. Adults with an MDE at higher risk for BAU were adults under the age of 50, adults who were never married, and adults who were divorced/separated. Special attention must be paid to those in age groups under 50, never married, and have been separated/divorced who are particularly at-risk for future alcohol abuse. Future research should consider examining additional potential confounders for BAU among other at-risk populations.

Keywords: Age; Marital status; Binge alcohol use; Major depressive episode; Complex survey design; National survey for drug use and health

1. Introduction

Alcohol is a depressant. Counterintuitively, individuals who suffer from depression often turn to it for relief from symptoms of depression, creating a vicious cycle of repeated use of alcohol that can quickly progress to addiction, harm

the brain, and exacerbate depressive symptoms [1-3]. Over 90% of United States (US) adults who drink excessively report binge drinking in the past 30 days [4]. A total of 26.5% of adults aged 18 or older report that they had engaged in binge drinking in the past month [5]. Binge drinking is most common among younger adults aged 18–34 years, but more than half of all binge drinks are consumed by those aged 35 and older [6]. Abundant research has confirmed the relationship between depression and alcohol consumption [7-10], as well as its influence on individuals' general health status, mortality, and burden of disease [11, 12]. Psychiatric disorders in general and depressive disorders in particular are among the most prevalent psychiatric conditions among adults and co-occur more often than expected by chance [13, 14]. Many past studies confirmed the prevalence of excessive alcohol use among a broad range of demographic populations across sex, age, and marital status [15-20]. An estimated 88,000 Americans die from alcohol-related causes annually, making alcohol the third leading preventable cause of death in the US [21]. Because this is a relatively common health status concern among the general population, there is an exigency to identify individuals at greater risk for binge alcohol use, such as adults with major depressive episode (MDE). Adults diagnosed with an MDE who are at risk for binge alcohol use (BAU) may experience direct impacts on their longevity, quality of life, individual safety, work productivity, and preventive treatment planning.

Although health determinants can act as a buffer against the increased risk for risky health behaviors among adults with MDE [22-25], evidence is lacking on binge alcohol drinking risk among adults with an MDE. Identifying sociodemographic populations with MDE who are at increased risk for BAU would allow for the development of focused prevention programs to meet the particular needs of each population. To address this gap in evidence, the primary goal of this study is to compare differences in BAU rates among the adult population with MDE, and to examine if age and marital status will significantly predict the risk for BAU in the past month among adults with MDE in the past 12 months. To meet this goal, this retrospective study has two hypotheses: first, it is predicted that adults under the age of 50 with MDE in the past 12 months will be at increased risk for BAU in the past month, compared to younger adults—and second, adults with MDE in the past 12 months who never been married, widowed, and divorced/separated will be at increased risk for BAU in the past month compared to married adults.

2. Materials and Methods

2.1 Study population

The total unweighted sample of adults aged 18 years or older included 42,551 adults with and without MDE in the past 12 months, representing a weighted total population size of 246, 262, 418.6. Of these, there were 6,999 adults with MDE in the past 12 months, representing a weighted total population size of 33, 900, 0452.12.

Study participants met the following criteria: (a) were 18 years or older; (b) were diagnosed with MDE in the past 12 months. Participants were considered to have MDE in the past 12 months if within the past year there was at least one period of two weeks or longer when they were depressed, lost interest or pleasure in daily activities, had

problems with sleeping, eating, energy, and concentration, or had low self-worth [26]. The MDE questions were based on diagnostic criteria from the Diagnostic and Statistical Manual of Mental Disorders, 5th edition [26].

2.2 Data source

Data were obtained from the 2018 National Survey for Drug Use and Health (NSDUH) 2018 of the Substance Abuse and Mental Health Services Administration. The NSDUH is the primary and nationally representative source of annual estimates of illicit drugs, alcohol, and tobacco use among members of the US noninstitutionalized population (including civilians living on military bases) aged 12 and older. Additionally, the NSDUH includes several modules focusing on mental health problems, and most questions are administered with audio computer-assisted self-interviewing. This method is designed to provide the respondent with a highly private and confidential mode for responding to questions to increase the level of honest reporting of illicit drug use, mental health problems, and other sensitive behaviors [27].

The survey enables users to produce estimates of demographic characteristics, drug, and alcohol use, and mental health problems from national, regional, state, and sub-state areas. The present study used public-use data and documentation from the NSDUH 2018 survey available at (http://www.datafiles.samhsa.gov).

2.3 Ethical considerations

As NSDUH data are publicly available and contain no identifying information about respondents, there is no risk of disclosure or violation of individual privacy; thus, informed consent was not obtained. All study procedures were approved by the appropriate institutional review board.

2.4 Data coding

All NSDUH records of individuals 18 years and older with an MDE in the past 12 months were included in the study. Records with an MDE in the past 12 months were coded as “1” and all others were coded as “0”. The main independent variables were age and marital status. The age variable was categorized into four groups (i.e., 18-25, 26-34, 35-49, and 50 and older), and marital status into four categories (married, widowed, divorced or separated, and never married) [27]. Because only participants aged 18 years and older were included in this study, category five in education level (those aged 12-17 years) was coded “0” and excluded from further analysis.

The outcome measure was BAU in the past month, defined as drinking five or more drinks for males, or four or more drinks for females on the same occasion (i.e. at the same time or within a couple of hours of each other, on at least one day in the past 30 days) [28]. The outcome measure was obtained from the "substance use" section that was designed to provide data on the use of various substances in the NSDUH [27].

2.5 Missing data

Missing data in the public-use NSDUH database were given different codes according to their type [29]. Imputation-revised variables as well as selected recoded versions of these variables were included for selected demographic, drug use, and substance use disorder variables. Missing values for all imputation-revised variables were imputed using the statistical imputation procedures described in the Statistical Imputation section of the NSDUH survey documentation [28, 30]. Imputation indicators were provided for each variable to determine whether an observation contained data from the survey or an imputed value [28].

2.6 Statistical analysis

As the NSDUH is a national survey using multistage and deeply stratified sampling, data were weighted to obtain unbiased estimates for survey outcomes in the population represented. Variance estimation variables, variance estimation cluster replicates (VEREP), variance estimation stratum (VESTR), and final analysis weight (ANALWT_C) were applied to the statistical analyses to account for the sampling method used in data collection. This ensures accurate point estimation regarding standard errors and allows generalizability of the results to the entire US population [28].

Unweighted and weighted estimates of age and marital status of the target sample were analyzed to produce national estimates of these demographic variables for adults with an MDE in the past 12 months who reported past month BAU. To examine research hypotheses, a weighted multinomial logistic regression (MLR) analysis was used to examine whether age and marital status are significant predictors of past month BAU among adults with an MDE in the past 12 months. The MLR is a prediction test of likelihood odds that indicates the chances of one event occurring in comparison to other events [31]. Because BAU in the past month (outcome measure) is a categorical variable, the MLR analysis is the appropriate statistical model for estimating the probabilities of their presence or absence. The model fit was examined using Pearson and deviance criteria; the display of statistics that measure the overall model performance was controlled. Wald Statistics, changes in log likelihood, and odds ratios for prediction of past month BAU were also calculated. All statistical analyses were performed using IBM SPSS ver. 26.0 premium (SPSS Corp. Inc.). A two-tailed $p < .05$ was considered statistically significant.

3. Results

In total, 2,325 adults aged 18 years or older with MDE in the past 12 months, reported BAU in the past month, representing a population size of 10,194,608.045.

Table 1 displays distribution of the age groups of the adults with MDE in the past 12 months who reported past month BAU. Results show that nearly 27% of the age group 18-25 reported BAU in the past month, whereas nearly

equal proportions of 25.4% and 25.9% were reported among the age groups 26-34 and 35-49 respectively. Among 50 years old or older adults with MDE in the past 12 months; only 22% reported BAU in the past month (Table 1).

Age	Unweighted N	Weighted N	Weighted %
18-25	1,083	27,373,40.873	26.9
26-34	547	25,887,12.339	25.4
35-49	523	26,412,64.929	25.9
50 or older	172	22,272,89.903	21.8
Total	2,325	101,946,08.045	100.0

Table 1: [1]Age groups of adults with MDE[2] who reported binge alcohol use over the past month.

1. Author's analysis of data from the 2018 National Survey for Drug Use and Health (NSDUH) for noninstitutionalized individuals with major depressive episodes (MDE) aged 18 and older *(N=6,999).*
2. Major Depressive Episode in the past 12 months.

As for the proportions of BAU in the past month among the different marital statuses of adults with MDE, Table 2 shows that more than half of never been married adults with MDE in the past 12 months, reported BAU in the past month, while more than 30% of those who were married reported the same (Table 2). Much smaller proportions of BAU in the past month was found among adults with MDE who were divorced/separated and widowed with 16.3% and 2.6% among each group, respectively.

Marital Status	Unweighted N	Weighted N	Weighted %
Never been married	1,491	5,188,534.873	50.9
Widowed	29	264,406.769	02.6
Divorced/Separated	264	16,578,03.619	16.3
Married	541	30,838,62.783	30.2
Total	2,325	101,946,08.045	100.0

Table 2: [1]Marital status of adults with MDE[2] who reported binge alcohol use over the past month.

1. Author's analysis of data from the 2018 National Survey for Drug Use and Health (NSDUH) for noninstitutionalized individuals with major depressive episode aged 18 and older *(N=6,999).*
2. Major Depressive Episode in the past 12 months.

3.1 Multinomial logistic regression analyses

The first research hypothesis predicted that adults with MDE in the past 12 months, under the age of 50 are at increased risk for BAU in the past month, compared to younger adults. To measure the likelihood ratios of BAU in the past month among adults with MDE in the past 12 months across age and marital status groups, MLR analyses were conducted for age and marital status, correspondingly. The MLR results confirmed that the two demographic variables significantly predicted increased risk for BAU in the past month among adults with MDE in the past 12 months, and that age and marital status demonstrated a substantially better fit than the intercept-only model (Table 3).

Tests of Model Effects				
Source	**df1**	**df2**	**Wald F**	**Sig.[3]**
(Corrected Model)	6.00	45.00	15.68	.00
(Intercept)	1.00	50.00	153.07	.00
Age group	3.00	48.00	15.30	.00
Marital status	3.00	48.00	6.37	.00

Table 3: Age and marital status predicting BAU[1] over the past month among adults with MDE[2].

1. Binge Alcohol use over the past month.
2. Major Depressive Episode in the past 12 months.
3. Significance level set at $p<0.05$.

MLR analysis results also confirmed that across age groups, adults younger than the age of 50 years old were at increased risk for BAU in the past month, compared to adults aged *≥50 years old* (Exp (B) =2.00 for 18–25, Exp (B) =2.13 for 26–34, and Exp (B) =1.81 for 35–49; $p < 0.05$, Table 4).

The second research hypothesis stated that adults with MDE in the past 12 months who have never been married, widowed, and divorced/separated are at increased risk for BAU in the past month, compared to married adults. The second hypothesis was partially confirmed; adults who never been married or were divorced/separated with MDE in the past 12 months had significantly increased risk for BAU in the past month, except widowed adults who had an equal risk for BAU to married adults (Exp (B) = 1.56 for never married, Exp (B) = 1.38 for divorced/separated; $p < 0.05$; Exp (B)= 0.89, p= 0.67 for widowed, Table 4).

Parameter Estimates											
Binge alcohol use over the past month [2]	Parameter	B	Std. Error	95% Confidence Interval		Hypothesis Test			Exp (B)	95% Confidence Interval for Exp (B)	
				Lower	Upper	t	df	Sig.[4]		Lower	Upper
Yes	(Intercept)	-1.56	.10	-1.77	-1.34	-14.67	50.00	.00	.21	.16	.26
	18-25	.69	.11	.46	.92	6.07	50.00	.00	2.00	1.59	2.52
	26-34	.75	.13	.48	1.03	5.50	50.00	.00	2.13	1.61	2.80
	35-49	.59	.11	.37	.81	5.43	50.00	.00	1.81	1.45	2.26
	50 or older	.00[5]	.	.	.	.	.	.	1.00	.	.
	Never been married	.44	.10	.24	.65	4.42	50.00	.00	1.56	1.27	1.91
	Widowed	-.11	.26	-.65	.42	-.42	50.00	.67	.89	.52	1.52
	Divorced/ Separated	.32	.11	.08	.56	2.72	50.00	.00	1.38	1.08	1.75
	Married	.00[5]	.	.	.	.	.	.00	1.00	.	.

Table 4: Parameter estimates of demographic predictors of BAU over the past month among adults with MDE [1, 2, 3].

1. Author's analysis of data from the 2018 National Survey for Drug Use and Health (NSDUH) for noninstitutionalized individuals with major depressive episode aged 18 and older (N=6,999).
2. BAU: Binge Alcohol Use over the past month.MDE: Major Depressive Episode in the past 12 months.
3. Reference category: no binge alcohol use in the past month.
4. Significance level $p < 0.05$.
5. Set to zero because this parameter is redundant.

4. Discussion

The findings of this retrospective research study confirm that age and marital status significantly predicted the risk for BAU in the past month among adults with MDE in the past 12 months. Adults with MDE in the past 12 months who were at increased risk for BAU included adults under the age of 50, those who have never married, and divorced/separated adults [32, 33, 6]. Some studies show that in the past decade, there has been a shift in the peak of binge drinking age and that the cohort of binge drinkers is getting slightly older, yet it is still considered within the

years of early to middle adulthood [34, 35]. These results are in alignment with the current study results that show that most adults with MDE who reported BAU in the study, were between the ages of 18 and 49 years old. A plausible explanation for this high risk among younger adults who suffer from MDE could be due to developmental and social factors and the developmental stage that younger adults are at [36], while battling MDE symptoms. It could be that poor social skills and untenable professional identity that is still evolving may leave the young adult more vulnerable to changes in mood, and seek a quick remedy through excessive alcohol consumption which may lead the young adult to become more prone to alcohol binge drinking [37, 38].

The current study results also confirm that adults who have never been married, divorced, or separated with MDE were at increased risk to develop BAU in the past month. Earlier studies show that when compared with married adults, greater alcohol consumption is characteristic of the never married [39, 40] and the divorced [41]. Earlier research also confirm that the rate of heavy drinking is higher among adults from these two marital statuses [39, 42, 43]. A plausible explanation for the increased risk for BAU among adults who were never been married, divorced and separated, is that marriage could be a buffer [44] against the impact of alcohol abuse, which may explain the higher risk among never been married adults with MDE and the resort to alcohol binging to mask the poor well-being feelings.

As for the decreased chances for BAU in the past month among widowers with MDE in the past 12 months; a potential explanation is that widowed persons are oftentimes older adults who gained more life experience than younger adults. A study about widowed men and women showed that when a spouse passes, men tended to experience vulnerability, whereas women tended to experience resilience [45]. It has been well established that women live longer than men [46-48]. It could be that in the current nationally representative sample used in this study, the group of widowers included more women than men which may explain the decreased risk for BAU in the past month among the widowed group with MDE. Other studies showed results in alignment with this plausible explanation and indicated that widowed women showed resiliency and received increased social support following the death of the spouse [49, 50]. However, these studies examined widowed women who were not identified as adults with MDE symptoms, and these studies included women only. More research is needed to examine social support networks, life experience, and resiliency among widowed persons with MDE with and without alcohol binge drinking.

Current research findings raise some serious concerns about the increased risk for BAU in the past month across marital status and age groups of adults with MDE in the past 12 months and its severe consequences on their quality of life, potential comorbidities, and longevity. This study, however, had some limitations. First, the NSDUH survey is cross-sectional; thus, no directionality or causality can be assumed between the study variables. Second, because the target population comprised non-institutionalized US civilians, a small proportion (approximately 3%) of the

general population was excluded, including members in military duty and institutionalized individuals (e.g. hospitals, prisons, nursing homes, treatment centers). If the mental health status of these groups differs from that of non-institutionalized civilians, the NSDUH may be slightly inaccurate in terms of mental health estimates of the general population. Finally, the impact of the global COVID-19 pandemic may very well lead to higher levels of depression, particularly in countries like the United States that have been severely impacted by the pandemic, and cause greater difficulties for at-risk populations who may turn to alcohol use to alleviate depressive symptoms. Identifying these at-risk populations and tailoring specific treatments for them are areas of clinical necessity that this study begins to address.

5. Conclusions

This is the first study to use a national probability sample to predict the likelihood of BAU in the past month among adults with MDE in the past 12 months. Study findings reveal a broad range of at-risk populations for BAU among adults with MDE. Clinical attention is needed for the at-risk populations for BAU among adults with MDE. Major depressive symptoms screening and treatment should be accompanied by questions about alcohol consumption. Furthermore, intervention treatments need to use tailored, focused interventions that address the patients' unique substance abuse and mental health challenges and needs. Special attention must be paid to age groups under 50 years old, never married, and separated/divorced who are particularly at risk for future alcohol abuse. Future research should assess risk for BAU among adults with MDE while adjusting for potential confounders, e.g. race, income, education, availability of supportive networks, conflicts at home, comorbid physical and psychiatric conditions, and employment status.

Declarations

Ethics Approval and Consent to Participate

Not applicable. This article does not contain any studies with human participants or animals performed by the author.

Availability of Data and Materials

The datasets generated and/or analyzed during the current study are available in the [2018 NATIONAL SURVEY ON DRUG USE AND HEALTH PUBLIC USE FILE CODEBOOK] Center for Behavioral Health Statistics. http://www.datafiles.samhsa.gov

Competing Interests

The author declares that there are no competing interests.

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Authors' Contributions

AO is the sole contributor to the extraction, preparation for analysis, data analysis, interpretation, writing and preparing this manuscript, including the final version of this manuscript.

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References

1. Ross V. Depression, anxiety, and alcohol or other drug use among college students. Prevention Updates. Education Development Center, Inc. (2004).
2. Boschloo L, Vogelzangs N, van den Brink W, et al. Depressive and anxiety disorders predicting first incidence of alcohol use disorders: results of the Netherlands Study of Depression and Anxiety (NESDA). J Clin Psychiatry 74 (2013): 1233-1240 .
3. Boschloo L. The co-occurrence of depression and anxiety with alcohol use disorders (2012).
4. Esser MB, Hedden SL, Kanny D, et al. Prevalence of alcohol dependence among US adult drinkers, 2009-2011. Preventing Chronic Disease: Public Health Research, Practice, and Policy (2014) 11.
5. Substance Abuse and Mental Health Services Administration. 2018 National Survey on Drug Use and Health (NSDUH), Table 2.1B—Tobacco Product and Alcohol Use in Lifetime, Past Year, and Past Month among Persons Aged 12 or Older, by Age Group: Percentages, 2017 and 2018 (2019).
6. Kanny D, Naimi TS, Liu Y, et al. Annual total binge drinks consumed by U.S. adults, 2015. Am J Prev Med 54 (2018): 486-496.
7. Holahan CJ, Moos RH, Holahan CK, et al. Drinking to cope and alcohol use and abuse in unipolar depression: A 10-year model. J Abnorm Psychol 112 (2003): 159-165.
8. Bravo AJ, Pearson MR, Henson JM. Drinking to cope with depressive symptoms and ruminative thinking: A multiple mediation model among college students. Subst Use Misuse 52 (2017): 52-62.
9. Kirchner JE, Zubritsky C, Cody M, et al. Alcohol consumption among older adults in primary care. J Gen Intern Med 22 (2007): 92-97.
10. Boden JM, Fergusson DM. Alcohol and depression. Addiction 106 (2011): 906-914.
11. Charlet K, Heinz A. Harm reduction-a systematic review on effects of alcohol reduction on physical and mental symptoms. Addict Biol 22 (2017): 1119-1159.
12. Peacock A, Leung J, Larney S, et al. Global statistics on alcohol, tobacco and illicit drug use: 2017 status report. Addiction 113 (2018): 1905-1926.

13. Conner KR, Gamble SA, Bagge CL, et al. Substance-induced depression and independent depression in proximal risk for suicidal behavior. J. Stud. Alcohol 75 (2014): 567-572.
14. Grant BF, Stinson FS, Dawson DA, et al. Prevalence and co-occurrence of substance use disorders and independentmood and anxiety disorders: Results from the national epidemiologic survey on alcohol and relatedconditions. Arch Gen Psychiatry 61 (2004): 807-816.
15. Bjørk C, Vinther-Larsen M, Thygesen LC, et al. [Alcohol consumption by middle-aged and elderly Danes from 1987 to 2003]. Ugeskr Laeger 168 (2006): 3317-3321.
16. Choi NG, DiNitto DM. Heavy/binge drinking and depressive symptoms in older adults: gender differences. Int J Geriatr Psychiatry 26 (2011): 860-868.
17. García-Esquinas E, Ortolá R, Galán I, et al. Moderate alcohol drinking is not associated with risk of depression in older adults. Sci Rep 8 (2018): 11512.
18. Han BH, Moore AA, Ferris R, et al. Binge drinking among older adults in the United States, 2015 to 2017. J Am Geriatr Soc 67 (2019): 2139-2144.
19. Han BH, Moore AA, Sherman S, et al. Demographic trends of binge alcohol use and alcohol use disorders among older adults in the United States, 2005-2014. Drug and Alcohol Depend 170 (2017): 198-207.
20. Keyes KM, Allel K, Staudinger UM, et al. Alcohol consumption predicts incidence of depressive episodes across 10 years among older adults in 19 countries. Int. Rev. Neurobiol 148 (2019): 1-38.
21. National Institute on Alcohol Abuse and Alcoholism. Alcohol Facts and Statistics. National Institute on Alcohol Abuse and Alcoholism (2020).
22. Omary A. Predictors and confounders of suicidal ideation and suicide attempts among adults with and without depression. Psychiatr Q (2020).
23. Rendall MS, Weden MM, Favreault MM, et al. The protective effect of marriage for survival: a review and update. Demography 48 (2011): 481-506.
24. Mirowsky J, Ross CE. Age and the effect of economic hardship on depression. J Health Soc Behav 42 (2001): 132-150.
25. Catalano RF, Haggerty KP, Hawkins JD, et al. Prevention of substance use and substance use disorders: Role of risk and protective factors. Clinical manual of adolescent substance abuse treatment. Arlington, VA, US: American Psychiatric Publishing, Inc. (2011): 25-63.
26. Substance Abuse and Mental Health Services Administration. Indicators in the United States: Results from the 2018 National Survey on Drug Use and Health. Rockville, MD: Center for Behavioral Health Statistics and Quality (2019).
27. Center for Behavioral Health Statistics and Quality. 2018 National Survey on Drug Use and Health Public Use File Codebook; Substance Abuse and Mental Health Administration (SAMSHA). Rockville, MD (2019).

28. Center for Behavioral Health Statistics and Quality. 2018 National survey on drug use and health: Methodological resource book (Section 2, Sample Design Report). Rockville, MD: Substance Abuse and Mental Health Services Administration (2019).
29. Center for Behavioral Health Statistics and Quality. 2018 National Survey on Drug Use and Health: Methodological Resource Book (Section 2, Sample Design Report). Rockville, MD: Substance Abuse and Mental Health Services Administration (2019).
30. Substance abuse and mental health services administration. 2018 National Survey on Drug Use and Health Public Use File Codebook. vol Datafile PUF2018_100819 Rockville, MD: Center for Behavioral Health Statistics (2019).
31. Harrell F. Regression modeling strategies: With applications to linear models, logistic and ordinal regression, and survival analysis. New York, NY: Springer (2015).
32. Bracke P, Pattyn E, von dem Knesebeck O. Overeducation and depressive symptoms: diminishing mental health returns to education. Sociol Health Illn 35 (2013): 1242-1259.
33. Bulloch AG, Williams JV, Lavorato DH, et al. The depression and marital status relationship is modified by both age and gender. J Affect Disord 223 (2017): 65-68.
34. Patrick ME, Terry-McElrath YM, Miech RA, et al. Age-specific prevalence of binge and high-intensity drinking among U.S. young adults: changes from 2005 to 2015. Alcohol Clin Exp Res 41 (2017): 1319-1328.
35. Patrick ME, Terry-McElrath YM, Lanza ST, et al. Shifting age of peak binge drinking prevalence: historical changes in normative trajectories among young adults aged 18 to 30. Alcoholism: Clinical and Experimental Research 43 (2019): 287-298.
36. Krieger H, Young CM, Anthenien AM, et al. The epidemiology of binge drinking among college-age individuals in the United States. Alcohol research: current reviews 39 (2018): 23-30.
37. McNally AM, Palfai TP, Levine RV, et al. Attachment dimensions and drinking-related problems among young adults: The mediational role of coping motives. Addict Behav 28 (2003): 1115-1127.
38. Lyvers M, Hasking P, Hani R, et al. Drinking motives, drinking restraint and drinking behaviour among young adults. Addict Behav 35 (2010): 116-122.
39. Power C, Rodgers B, Hope S. Heavy alcohol consumption and marital status: disentangling the relationship in a national study of young adults. Addiction 94 (1999): 1477-1487.
40. Simon RW. Revisiting the relationships among gender, marital status, and mental health. American journal of sociology 107 (2002): 1065-1096.
41. Heien D, Pompelli G. Stress, ethnic and distribution factors in a dichotomous response model of alcohol abuse. J Stud Alcohol 48 (1987): 450-455.
42. Dinescu D, Turkheimer E, Beam CR, et al. Is marriage a buzzkill? A twin study of marital status and alcohol consumption. J Fam Psychol 30 (2016): 698.

43. Dinescu D, Turkheimer E, Beam CR, et al. Is marriage a buzzkill? A twin study of marital status and alcohol consumption. Journal of family psychology: JFP: journal of the Division of Family Psychology of the American Psychological Association (Division 43) 30 (2016): 698-707.
44. Cherlin AJ. Demographic trends in the United States: A review of research in the 2000s. Journal of Marriage and Family 72 (2010): 403-419.
45. Koren C. Mens vulnerability--womens resilience: from widowhood to late-life repartnering. Int Psychogeriatr 28 (2016): 719-731.
46. Zarulli V, Jones JAB, Oksuzyan A, et al. Women live longer than men even during severe famines and epidemics. Proceedings of the National Academy of Sciences 115 (2018): E832-E840.
47. Newman AB, Brach JS. Gender gap in longevity and disability in older persons. Epidemiol Rev 23 (2001): 343-355.
48. Austad SN. Why women live longer than men: sex differences in longevity. Gend Med 3 (2006): 79-92.
49. Wilcox S, Evenson KR, Aragaki A, et al. The effects of widowhood on physical and mental health, health behaviors, and health outcomes: The women's health Initiative. Health Psychol 22 (2003): 513-522.
50. Avis NE, Brambilla DJ, Vass K, et al. The effect of widowhood on health: A prospective analysis from the Massachusetts women's health study. Soc Sci Med 33 (1991): 1063-1070.

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