Committed Dating Relationships and Mental Health Among College Students

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Abstract. Objective: To examine whether involvement in committed dating relationships is associated with university students' mental health (depressive symptoms and problem alcohol use, including binge drinking), and whether these associations differ by gender. Participants: A sample of 889 undergraduate students aged 18 to 25. **Methods**: Self-report measures of dating relationship status, depression, and problematic alcohol use were collected via an online survey from August to December 2010. Results: Involvement in a committed relationship, compared with being single, was associated with fewer depressive symptoms for college women but not for men. Committed relationship involvement was also associated with less problematic alcohol use for both genders. Conclusions: Findings suggest that involvement in committed relationships may be protective to college student mental health, and highlight the potential of healthy relationship programming to benefit student well-being.

Keywords: alcohol, gender, mental health

ollege-aged adults are at elevated risk for mental health problems, including depression¹ and alcohol or substance use problems.² According to recent estimates, 14.9% of college students have experienced diagnosed depression³ and up to 41% report clinically elevated depressive symptoms levels.⁴ Depressive symptoms significantly impair college student's functioning across life domains, including academics.⁵ In addition, approximately 40% of 18- to 20-year-old college students engage in binge drinking⁶ and over 30% meet diagnostic criteria for either alcohol abuse or dependence.⁷ Such problematic alcohol use is

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linked with a multitude of negative outcomes among young adults, including school dropout, injury, and death.⁸ It is therefore important to identify factors that may promote or impair the mental health of college students.

Among adults, one well-established protective factor for mental health is being married. Marriage is associated with reduced risk for a wide range of psychological problems,⁹ including internalizing symptoms such as depression¹⁰ and externalizing symptoms such as substance abuse. 11 Although this may be partially explained by the selection of psychologically healthy individuals into marriage, research suggests that marriage actively confers benefits to mental health. 10 It provides an intimate, emotionally fulfilling relationship that satisfies individuals' needs for social integration and support. 12 Spouses also monitor one another, encouraging healthy behaviors that promote emotional well-being (eg, good eating habits, regular exercise), and discouraging unhealthy ones (eg, heavy drinking, drug use).¹³ The internalization of behavioral norms for the social role of a spouse¹⁴ may reduce risky behaviors (eg, binge drinking, drug use) that are more acceptable and normative for singles.¹¹ Marriage also creates an important sense of identity and purpose for many people¹⁵ and may allow them to avoid the psychologically damaging stigma of being a single adult. 16 In fact, based on the clear health and mental health benefits of marriage, there are large-scale federally funded efforts to promote healthy marriages via relationship education as a strategy to improve public health.¹⁷

It is unclear, however, whether these benefits to mental health extend to romantic relationships other than marriage; links between psychological health and dating relationships (which constitute the majority of college relationships ¹⁸) remain relatively unstudied. Consequently, it would be premature to initiate parallel efforts using healthy relationship programming on college campuses to address the high rates of depression and alcohol use among students. For several

reasons, the well-documented "marriage benefit" to mental health cannot be assumed to generalize to young adult dating relationships. First, because young adults tend to have many social interaction partners, 19 they may be less dependent on romantic partners to provide social connection. Second, college dating partners may not exert social control over each other's behavior. Emerging adulthood is considered a "selffocused age" when individuals have autonomy to make decisions without others' consent.²⁰ Because most college dating partners do not live together, they may be less able to monitor each other's behavior, and the social norm that marriage entails "cleaning up one's act" from the wild days of single life¹¹ may not apply to college dating relationships. Further, relationships may not be important to self-worth during these years, when independence is valued²¹ and being unmarried is the norm.²² Finally, recent research on adolescents has indicated that teens involved in dating relationships report higher levels of depressive symptoms²³ and more problematic substance use²⁴ than teens who do not date. Although it remains unclear why relationship involvement might be associated with poorer mental health in adolescence when it promotes well-being in adulthood, some have proposed that adolescents lack the emotional maturity and coping resources to handle the intense emotions and other challenges inherent in romantic activities.²⁵ Young adults in college may similarly lack these resources.

On the other hand, there may be psychological benefits of college dating relationships. Because the development of romantic competence represents a central developmental task of young adulthood, ²⁶ an intimate relationship may provide young adults with a sense of accomplishment and a social identity. ²⁷ It is also possible that committed partners exert some level of social control over one another, reducing engagement in the risky behaviors of heavy drinking and casual sex associated with the single "hook-up" culture on many campuses. ²⁸ Also, romantic partners may provide each other with an emotional connection not provided by other social partners on campus, who, although abundant, may not be sources of intimacy or support.

Limited research has examined the association between dating relationships and young adult mental health. A national telephone survey conducted in 1992 and 1997 indicated that subjective well-being (ie, life satisfaction, happiness, distress, and self-esteem) was higher among young adults dating 1 person exclusively than among those who were single or dating multiple people.²⁹ Similarly, in a community sample of young adults (18 to 23 years old; 65% students), romantic involvement was associated with fewer depressive symptoms and fewer problems resulting from alcohol and drug use.³⁰ The only 2 studies specifically examining college students yielded contradicting results. One found that students in committed relationships reported fewer academic problems resulting from mental health problems and fewer risky alcohol-related behaviors than did single students.³¹ In contrast, the other found that involvement in a romantic relationship not only showed no concurrent association with depressive symptoms, but predicted increases in depression in the first year of college.³² Although the reasons behind these conflicting findings is unclear, it is possible that the latter finding is specific to the first year of college; because many of the relationships of these students may have begun in high school, the increased depression may result from the challenges of long-distance romance during this transition.

In sum, the research examining associations between committed dating relationships and mental health among young adults is inconsistent and limited. Only 2 studies explicitly assessed mental health symptoms, 30,32 and only 1 of these focused on college students, who are particularly at risk for certain mental health problems (ie, depression and alcohol abuse). In addition, some of the data were collected over 10 or 20 years ago^{29,31} raising questions of applicability to today's emerging adults in light of the dramatic changes over the past few decades in the nature of college students' intimate relationships. Today's young adults increasingly delay marriage and parenthood, forego traditional dating and courtship practices, get to know romantic partners in mixed-gender group settings (parties, bars) rather than on formal dates, and engage in sex and cohabitation outside of marriage.³³

In addition, insufficient attention has been paid to potential gender differences in previous research. Because interpersonal relations are, on average, more central to women's than men's identities and self-concepts,34 romantic relationships are theorized to be of greater importance to women's than men's mental health. Compared with men, women show stronger associations between depressive symptoms and satisfaction with their marriages³⁵ and dating relationships.³⁶ However, contrary to these gender-based theories, marital status appears to confer equal benefits to the physical and psychological health of men and women. Currently, it is unclear whether romantic involvement during college may have different mental health implications for men versus women. Only 1 study of young adults directly tested such gender differences, finding that romantic involvement predicted lower depressive symptoms equally well across gender, but showed a stronger negative association with substance use problems for women than men.³⁰ In direct contrast, among adolescents, romantic involvement was more strongly associated with depression for girls than for boys, but equally linked with substance abuse for both genders.²⁴ Clearly, more research is needed to understand potential gender differences in the associations between dating relationships and mental health.

In the present study, we evaluated whether involvement in nonmarital committed romantic relationships is associated with mental health among colleges students, as well as whether this association differs by gender. Because previous findings from young adults and adolescents suggest that gender differences in the association between romantic involvement and mental health may be specific to the problem explored, we assessed both depressive symptoms, which tend to be higher among women than men, ³⁷ and problematic alcohol use, which tends to be higher for men than women ³⁸ and represents a major public health problem on college campuses. ^{39,40} Given the limited and inconsistent findings to date, we did not make directional hypotheses.

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METHODS

Participants and Procedure

Participants were 889 undergraduate students (285 men, 604 women) aged 18 to 25 who were either single or involved in an exclusive dating relationship. Participants volunteered to take part in a larger institutional review board-approved study of dating activities and relationships to fulfill requirements for psychology courses at a large midwestern university. Of the original 1,013 participants in the larger study, 14 were removed due to providing incomplete or conflicting responses. Because of our explicit interest in nonmarital committed relationships, we excluded 11 married participants and 99 participants in casual, nonexclusive relationships, yielding the final sample of 889. Participants completed a passwordprotected online survey that contained an informed consent document and self-report measures of personal and relationship characteristics. Participants were primarily (84%) white (7.2% black, 2.1% Asian, 4.3% multiracial, and 2.7% Hispanic), predominantly (98.9%) in heterosexual relationships, and an average of 19.1 years old (SD = 1.4). Most were in their first (55%) or second (23%) year of college. Just over half (54.1%) identified themselves as single, 43.3% as in an exclusive dating relationship, and 2.6% as engaged. Mean relationship length was 20.4 months (SD = 16.7). Forty-three participants (4.8%) were cohabiting with their partners.

Measures

Demographic Information

On a basic personal information form, participants provided information on demographic variables (gender, age, year in college, and race).

Committed relationship status. Participants indicated whether their current relationship status was single, dating casually, dating exclusively, engaged, or married/domestic partnership. We recoded these responses to create a variable indicating involvement in a nonmarital committed dating relationship (single = 0; engaged or dating exclusively = 1). (Married and nonexclusively dating students were excluded.)

Depressive symptoms. The Center for Epidemiological Studies—Depression Scale⁴¹ (CES-D) is a well-established measure of depressive symptoms with strong psychometric properties.⁴² The CES-D sums participants' ratings of how often they experienced each of 20 depressive symptoms during the past week on a 4-point scale ($0 = rarely \ or \ none \ of the time; 3 = most \ or \ all \ of the time)$. Scores ≥ 16 indicate clinically significant levels of depressive symptoms.⁴³ In this sample, internal consistency was excellent ($\alpha = .90$) and scores were normally distributed.

Alcohol use. Participants completed the 10-item Alcohol Use Disorders Identification Test⁴⁴ (AUDIT), a valid indicator of hazardous alcohol use⁴⁵ used extensively in research with college samples.⁴⁶ Items assess alcohol use quantity and frequency, signs of alcohol dependency, and problems

caused by alcohol use. Responses to all items are summed to provide a quantitative index of *level of problem drinking* (ranging from 0 to 40). Scores ≥ 8 indicate *alcohol use problems*; several studies have demonstrated that at this cutoff value, the AUDIT demonstrates very favorable sensitivity and specificity in identifying International Classification of Diseases 10th Revision alcohol use disorders.⁴⁷ In this sample, internal consistency was good ($\alpha = .80$).

RESULTS

Preliminary Analyses

Means, standard deviations, and percentages on all study variables are presented separately for single participants and those in exclusive relationships in Table 1. There was considerable variation in both measures of mental health; 390 participants (43.9%) reported clinically significant depressive symptom levels (CES-D scores \geq 16), and 406 participants (46.3%) reported problem alcohol use (AUDIT scores \geq 8), consistent with rates seen in other college samples. ⁴⁶ There was a small but significant positive correlation between depressive symptoms and problematic drinking scores (r = .12, p < .01), consistent with other young adult samples. ³⁰

We next conducted preliminary analyses to determine whether demographic variables (gender, age, year in school, and race) might be associated with relationship status and mental health, and therefore might account for any observed associations between the two. Because the assumption of equal variance between groups (for gender and year in school) was violated for the AUDIT, for these analyses we report results of t tests that do not assume equal variances. Women were more likely than men to report involvement in a committed relationship (49.5% vs 38.2%), $\chi^{2}(1, N = 889) =$ 9.88, p < .01. As expected, women reported more depressive symptoms than men, t(887) = -2.92, p = .004, and men reported more problematic drinking than women, t(486.03) =3.95, p < .001. Individuals involved in a committed relationship were older (M = 19.23, SD = 1.51) than single individuals (M = 18.99, SD = 1.28), t(799.33) = -2.54,p = .01. There was no association between age and depressive symptoms or problematic drinking. Year in school (coded as first 2 years vs all others, due to small numbers in years 3 and above) was not related to relationship status, $\chi^{2}(1, N = 889) = 2.23, p = .14, depression, t(887) = -0.26,$ p = .80, or problematic drinking, t(799.33) = 0.64, p = .53. Race (coded as white vs nonwhite due to small numbers in individual minority racial groups) was not associated with relationship status, $\chi^{2}(1, N = 889) = 1.29, p = .26$. However, as observed in similar samples, 48 white participants reported more problematic drinking (M = 7.92, SD = 5.85) than participants of other races (M = 6.30, SD = 6.16), t(875) = 2.96, p < .01. White participants did not differ from nonwhite participants on depressive symptoms. Based on these findings, age and race were included as covariates in the primary analyses. Gender was included as a predictor variable, given our interest in potential gender differences.

TABLE 1. Percentages, Means, and Standard Deviations of Key Variables Within Relationship Status Group Relationship status Single (n = 481)Committed relationship (n = 408) SDVariable % M % SDΜ Gender Women 63.4 73.3 Men 36.6 26.7 Race White 82.7 85.5 Other 17.3 14.5 Age 18.99 1.28 19.23 1.51 Year in school 57.0 52.0 First Second 23.9 21.3 8.7 11.8 Third Fourth 2.7 8.1 Higher or postbaccalaureate 1.6 2.9 Depressive symptom level 16.50 9.63 15.31 9.96 Clinically significant depressive symptoms 47.6 39.5 8.62 6.06 6.51 5.54 Problem drinking level Alcohol use problems 54.3 36.7

Primary Analyses

To test whether involvement in a committed dating relationship was associated with the mental health variables, and if any observed associations differed by gender, we ran a 2 (Relationship Status) \times 2 (Gender) multivariate analysis of covariance predicting depressive symptoms and problematic drinking, with age and race included as covariates. There was a significant multivariate effect for race, F(2, 870) = 8.75, p <.001, Wilks' $\lambda = .98$, but not for age. After adjusting for the covariates, there were significant multivariate main effects for relationship status, F(2, 870) = 12.31, p < .001, Wilks' λ = .97, and gender, F(2, 870) = 11.87, p < .001, Wilks' $\lambda =$.97, and a significant multivariate interaction effect between relationship status and gender, F(2, 870) = 4.40, p = .01, Wilks' $\lambda = .99$. To interpret these results, we next examined the results from tests of univariate effects, which evaluated the associations of relationship status, gender, and their interaction with each of the dependent variables separately.

Univariate analyses indicated no significant effects of the covariates (age or race) on depressive symptoms. Consistent with the preliminary analyses, in these models there was a main effect of gender on depressive symptoms, with women (estimated marginal mean [EMM] = 16.57, SE = 0.40) reporting more depressive symptoms than men (EMM = 14.64, SE = 0.60), F(1, 871) = 7.27, p = .01. There was also an interaction between relationship status and gender, F(1, 871) = 7.75, p = .01. To examine the nature of the interaction, analyses of covariance predicting depressive symptoms with relationship status, controlling for age and race, were performed separately for men and women. As displayed in Figure 1a, controlling for age and race, depressive symptom levels did not differ between men

in a committed relationship (EMM = 15.51, SE = 0.89) and single men (EMM = 13.98, SE = 0.70), F(1, 281) = 1.83, p = .18. However, women who were in a committed romantic relationship (EMM = 15.34, SE = 0.57) reported fewer depressive symptoms than single women (EMM = 17.85, SE = 0.56), F(1, 600) = 9.63, p = .002.

Univariate analyses predicting problematic drinking indicated a main effect of race, F(1, 871) = 12.64, p < .001, but not gender. Results, graphically displayed in Figure 1b, also indicated a significant main effect for relationship status, F(1, 871) = 24.60, p < .001, and a significant main effect for gender F(1, 871) = 13.52, p < .001. Consistent with previous research and our preliminary analyses, when controlling for age and race, men (EMM = 8.63, SE =0.36) reported significantly more problematic alcohol use than women (EMM = 7.06, SE = 0.24). Single participants (EMM = 8.90, SE = 0.27) reported significantly more problematic drinking than those in committed relationships (EMM = 6.78, SE = 0.33). The interaction between relationship status and gender was not significant, indicating that the association between relationship status and problematic alcohol use does not differ by gender.

Finally, we conducted follow-up analyses to explore whether committed relationships are associated with the presence of clinically significant levels of depressive symptoms (CES-D scores \geq 16) and alcohol use problems (AUDIT scores \geq 8). Consistent with previous analyses using *level* of depressive symptoms, women in relationships were less likely than single women to report clinically significant depressive symptoms (39.8% vs 54.1%), $\chi^2(1, N = 604) = 12.39$, p < .001, whereas men were equally likely to report clinically significant symptoms regardless of relationship

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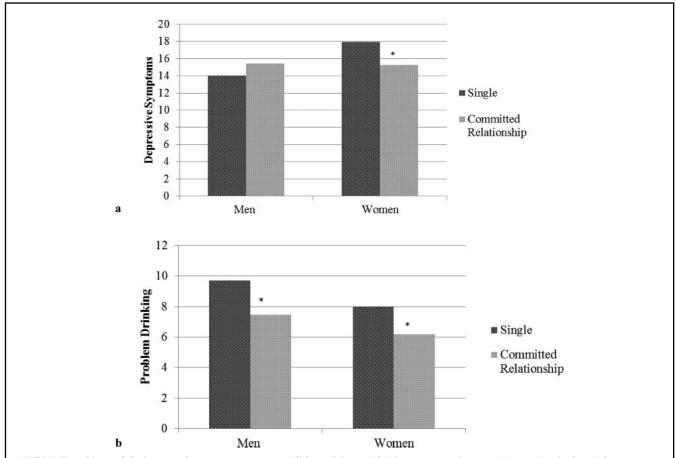


FIGURE 1. Mean (a) depressive symptoms and (b) problem drinking scores by gender and relationship status, adjusted for race and age. *Significant difference by relationship status, within gender.

status, $\chi^2(1, N = 285) = .14$, p = .71. Also consistent with previous analyses, women and men in committed relationships were less likely than singles to report scores on the AUDIT consistent with alcohol use problems, for women (34.1% vs 48.7%), $\chi^2(1, N = 597) = 13.02$, p < .001; for men (43.8% vs 64.0%), $\chi^2(1, N = 280) = 10.88$, p = .001.

COMMENT

In this study, we investigated whether nonmarital romantic relationships are associated with the mental health of university students. Overall, the results indicated that involvement in a committed relationship was associated with better mental health than was being single; however, this association differed by symptom type and gender. Dating relationships were associated with fewer depressive symptoms and lower rates of clinically significant depression for women but not for men. Relationship involvement was also associated with less problematic alcohol use for both genders. Together with similar results from 3 previous studies, ^{29–31} these findings suggest that involvement in dating relationships may be protective—and is not harmful—to young adult mental health. Although romantic involvement

during adolescence may risk for depressive symptoms and substance use, ^{23,24} college relationships appear to generally promote healthy psychological functioning, similarly to marriage among adults. ^{9,11} In contrast to adolescents, who are theorized to lack the emotional resources for coping with the inherent challenges of romantic activities, ²⁵ emerging adults may have gone through the personality and emotional maturation ⁴⁹ necessary to render steady romantic relationships beneficial to mental health.

Involvement in a dating relationship was associated with less depression for female, but not male, participants. These findings for women are consistent with the large body of research on adults⁹ and 2 previous studies of young adults.^{29,31} Although we did not assess the mechanisms behind this association, there are several possibilities. College women in committed relationships, like married adult women, may obtain intimacy and social support from their partners, may engage in fewer behaviors that promote depressive symptoms due to direct or indirect social control, and may gain self-worth and a valued social identity from their relationship. Although it is also possible that less depressed college women are more likely to attract and keep a dating partner than those experiencing more depression, past research

suggests that depression does not reduce likelihood of entry into marriage¹⁰ or committed relationships.²⁹

It is unclear why relationship status was not associated with depressive symptoms for the college men. Perhaps committed relationships are more important to the self-concepts of young women than men, given that women are generally socialized to value relatedness with others whereas men are taught to value maintaining individuality.³⁴ Indeed, female college students rate the sexual-interpersonal domain as more important to their self-definition than do male students.⁵⁰ Similarly, societal stigma around being single¹⁶ may be greater for college women than men. College women may also have a stronger preference for traditional dating than college men. Being single on campuses today often entails "hooking up," or sexual encounters outside of a relationship or expected relationship; 75%-85% of college adults report having hooked up,^{51,52} and 50%-75% report hooking up in the past year.⁵³ College women report less positive and more negative emotional reactions to hooking up than do men.⁵³ Further, more young women than men report that they would prefer traditional dating to hooking up, whereas more men than women report a preference for hooking up while remaining single.⁵⁴ Therefore, single women, but not single men, may suffer from negative emotional reactions to hooking up and unfulfilled wishes to be in a relationship, which may elevate depressive symptoms.

Looking at problematic alcohol use, college students of both genders who were in committed relationships reported less overall problem drinking than did single students. Echoing evidence that marriage reduces alcohol use and abuse for husbands and wives, 11 and together with similar findings from 2 other studies of emerging adult relationships, ^{30,31} this suggests that involvement in a dating relationship is associated with less hazardous alcohol use by university students. It is possible that dating partners monitor and directly exert social control over each other's alcohol-related behaviors, similar to adult spouses.¹³ Despite not living together, college couples may monitor each other's drinking behaviors as they attend social activities together or meet up afterwards. In addition, on college campuses, alcohol use frequently goes hand-in-hand with attempts to meet potential romantic and sexual partners; there are strong correlations between alcohol use and "hooking up." ²⁸ Single emerging adults may engage in alcohol consumption as part of their efforts to meet a romantic partner. In contrast, those in an exclusive dating relationship may have less motivation to go to bars or parties and engage in binge drinking. Alternately, this finding may reflect a selection effect, in which students who abuse alcohol are less likely to form relationships and more likely to break up. Indeed, among married samples, problem drinking is associated with divorce.⁵⁵

The pattern of findings for men, for whom relationship involvement was associated with reduced hazardous drinking but not depressive symptoms, 30 may reflect a tendency for men to express emotional distress via externalizing rather than internalizing symptoms. Indeed, theorists have suggested that adult marriage is negatively associated with psy-

chological distress across gender, but that women express it through reduced emotional distress and men through reduced alcohol use. ⁵⁶ It is possible that, similarly, the benefits of dating relationships to college men's mental health may be manifested in the gender-typical manner of reduced problem drinking.

Limitations

Several limitations of this study should be noted. First, the cross-sectional data prohibit conclusions regarding the direction of effects. Based on these data, we cannot determine whether entry into a committed romantic relationship reduces emerging adults' depressive symptoms and problem drinking or if young adults with fewer symptoms and less problematic alcohol use are more likely to develop and maintain relationships. We did not evaluate mechanisms of effect. Additional studies using longitudinal designs and measuring potential mechanisms are clearly needed before drawing confident conclusions regarding how college romantic relationships affect mental health. In addition, participants were predominantly white and in heterosexual relationships, limiting generalizability of findings to students of other ethnic backgrounds and sexual orientations. Finally, we did not gather information on whether single participants had recently had a romantic break-up, which has been linked with higher symptom levels.³⁰

Conclusions

This study provides new and valuable information about the association between nonmarital dating relationships and mental health among college students. The current findings contribute to a small but growing literature indicating that during emerging adulthood, romantic relationship involvement is associated with positive mental health. As such, these results suggest the potential utility of efforts to encourage and support committed relationships among college students as one strategy to prevent or reduce the depressive symptoms and hazardous alcohol use that are highly prevalent on US college campuses. Universities might consider the widespread provision of education about the risks of casual sexual encounters and the benefits of healthy relationships to their students. Relationship education programs, which have demonstrated effectiveness in reducing distress and divorce among adult married couples,⁵⁷ have recently been adapted to promote the formation, development, and maintenance of healthy relationships among emerging adults. For example, Florida State University has offered relationship education as part of an existing high-enrollment course that meets degree requirements,⁵⁸ with the goal of reaching large numbers of students and thereby changing campus norms about romantic relationships (eg, reducing acceptance of casual hook-ups). This course, which includes information about partner selection in addition to relationship skills, has shown positive effects on participating students' relationship knowledge and behaviors (eg, reducing risky sexual behaviors).⁵⁸ In addition, given the current college population's comfort

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with and frequent use of electronic media (social networking, online learning), offering an online module about healthy relationships and the risks of joining in the "hook-up" culture to all incoming freshman could be a particularly effective method of delivering this information on a large-scale basis.

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NOTE

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REFERENCES

- 1. Kessler RC, Walters EE. Epidemiology of DSM-III-R major depression and minor depression among adolescents and young adults in the National Comorbidity Survey. *Depress Anxiety*. 1998;7:3–14.
- 2. Blanco C, Okuda M, Wright C, et al. Mental health of college students and their non-college-attending peers: results from the National Epidemiologic Study on Alcohol and Related Conditions. *Arch Gen Psychiatry*. 2008;65:1429–1437.
- 3. American College Health Association. American college Health Association-National College Health Assessment Spring 2008 Reference Group data report (abridged): the American College Health Association. *J Am Coll Health*. 2009;57:477–488. doi: 10.3200/JACH.57.5.477-488.
- 4. Sargent JT, Crocker J, Luhtanen RK. Contingencies of self-worth and depressive symptoms in college students. *J Soc Clin Psychol.* 2006;25:628–646.
- 5. Hysenbegasi A, Hass SL, Rowland CR. The impact of depression on the academic productivity of university students. *J Ment Health Policy Econ.* 2005;8:145–151.
- 6. Substance Abuse and Mental Health Services Administration. *Results From the 2006 National Survey on Drug Use and Health: National Findings.* Rockville, MD: Substance Abuse and Mental Health Services Administration; 2007. SMA 07-4923.
- 7. Beck KH, Arria AM, Caldeira KM, Vincent KB, O'Grady KE, Wish ED. Social context of drinking and alcohol problems among college students. *Am J Health Behav.* 2008;32:420–430.
- 8. Hingson R, Heeren T, Winter M, Wechsler H. Magnitude of alcohol-related mortality and morbidity among U.S. college students ages 18–24: changes from 1998 to 2001. *Annu Rev Public Health*. 2005;26:259–279.
- 9. Waite LJ, Gallagher M. *The Case for Marriage: Why Married People Are Happier, Healthier, and Better Off Financially*. New York, NY: Doubleday; 2000.
- 10. Lamb KA, Lee GR, DeMaris A. Union formation and depression: selection and relationship effects. *J Marriage Fam.* 2003;65:953–962.
- 11. Duncan GJ, Wilkerson B, England P. Cleaning up their act: the effects of marriage and cohabitation on licit and illicit drug use. *Demography*. 2006;43:691–710.
- 12. House JS, Umberson D, Landis KR. Structures and processes of social support. *Ann Rev Social*. 1988;14:293–318.
- 13. Lewis MA, Butterfield RM. Social control in marital relationships: effect of one's partner on health behaviors. *J Appl Soc Psychol.* 2007;37:298–319. doi: 10.1111/j.0021-9029. 2007.00161.x.

- 14. Umberson D. Family status and health behaviors: social control as a dimension of social integration. *J Health Soc Behav*. 1987;28:306–319.
- 15. Gove WR, Style CB, Hughes M. The effect of marriage on the well-being of adults. *J Fam Issues*. 1990;11:4–35.
- 16. DePaulo BM, Morris WL. The unrecognized stereotyping and discrimination against singles. *Curr Dir Psychol Sci.* 2006;15:251–254.
- 17. Ooms T. Marriage and Government: Strange Bedfellows? Couple and Marriage Series. Washington, DC: Center for Law and Social Policy; 2002. Brief no. 1.
- 18. Arnett JJ. Emerging adulthood: a theory of development from the late teens through the twenties. *Am Psychol*. 2000;55:469–480.
- 19. Carstensen LL. Social and emotional patterns in adulthood: support for socioemotional selectivity theory. *Psychol Aging*. 1992;7:331–338.
- 20. Arnett J. The developmental context of substance use in emerging adulthood. *J Drug Iss.* 2005;35:235–253.
- 21. Arnett JJ. Emerging Adulthood: The Winding Road From the Late Teens Through the Twenties. New York, NY: Oxford University Press: 2004.
- 22. Jacobsen LA, Mather M. U.S. economic and social trends since 2000. *Popul Bull.* 2010;65:2–16.
- 23. Compian L, Gowen LK, Hayward C. Peripubertal girls' romantic and platonic involvement with boys: associations with body image and depression symptoms. *J Res Adolesc*. 2004;14:23–47. doi: 10.1111/j.1532-7795.2004.01401002.x.
- 24. Joyner K, Udry JR. You don't bring me anything but down: adolescent romance and depression. *J Health Soc Behav*. 2000;41:369–391.
- 25. Davila J. Depressive symptoms and adolescent romance: theory, research, and implications. *Child Dev Perspect*. 2008;2:26–31. doi: 10.1111/j.1750-8606.2008.00037.x.
- 26. Roisman GI, Masten AS, Coatsworth JD, Tellegen A. Salient and emerging developmental tasks in the transition to adulthood. *Child Dev.* 2004;75:123–133. doi: 10.1111/j.1467-8624.2004.00658.x.
- 27. Montgomery MJ. Psychosocial intimacy and identity. *J Adolesc Res*. 2005;20:346–374. doi: 10.1177/0743558404273118.
- 28. Owen J, Rhoades GK, Stanley SM, Fincham FD. "Hooking up" among college students: demographic and psychosocial correlates. *Arch Sex Behav.* 2010;39:653–663.
- 29. Kamp Dush CM, Amato PR. Consequences of relationship status and quality for subjective well-being. *J Soc Pers Relat.* 2005;22:607–627.
- 30. Simon RW, Barrett AE. Nonmarital romantic relationships and mental health in early adulthood. *J Health Soc Behav*. 2010;51:168–182. doi: 10.1177/0022146510372343.
- 31. Braithwaite SR, Delevi R, Fincham FD. Romantic relationships and the physical and mental health of college students. *Pers Relat.* 2010;17:1–12. doi: 10.1111/j.1475-6811.2010.01248.x.
- 32. Davila J, Steinberg SJ, Kachadourian L, Cobb R, Fincham F. Romantic involvement and depressive symptoms in early and late adolescence: the role of a preoccupied relational style. *Pers Relat.* 2004;11:161–178.
- 33. Bogle KA. *Hooking Up: Sex, Dating, and Relationships on Campus*. New York, NY: New York University Press; 2008.
- 34. Cross SE, Madson L. Models of the self: self-construals and gender. *Psychol Bull*. 1997;122:5–37. doi: 10.1037/0033-2909.122.1.5.
- 35. Proulx CM, Helms HM, Buehler C. Marital quality and personal well-being: a meta-analysis. *J Marriage Fam.* 2007;69:576–593. doi: 10.1111/j.1741-3737.2007.00393.x.
- 36. Whitton S, Kuryluk A. Relationship satisfaction and depressive symptoms in emerging adults: cross-sectional associations and moderating effects of relationship characteristics. *J Fam Psychol*. 2012;26:226–235. doi: 10.1037/a0027267.

- 37. Sloan DM, Sandt AR. Gender differences in depression. Womens Health. 2006;2:425-434. doi: 10.2217/17455057.2.3.425.
- 38. Grant BF, Dawson DA, Stinson FS, Chou SP, Dufour MC, Pickering RP. The 12-month prevalence and trends in DSM-IV alcohol abuse and dependence: United States, 1991–1992 and 2001–2002. *Drug Alcohol Depend*. 2004;74:223–234.
- 39. National Institute on Alcohol Abuse and Alcoholism (NI-AAA). *A Call to Action: Changing the Culture of Drinking at U.S. Colleges*. Bethesda, MD: NIAAA; 2002.
- 40. Slutske WS. Alcohol use disorders among US college students and their non-college-attending peers. *Arch Gen Psychiatry*. 2005;62:321–327. doi: 10.1001/archpsyc.62.3.321.
- 41. Radloff LS. The CES-D scale. *Appl Psychol Meas*. 1977;1:385–401. doi: 10.1177/014662167700100306.
- 42. Eaton WW, Kessler LG. Rates of symptoms of depression in a national sample. *Am J Epidemiol*. 1981;114:528–538.
- 43. Derogatis LR, Lynn LL, Maruish ME. *Psychological Tests in Screening for Psychiatric Disorder*. Mahwah, NJ: Erlbaum; 1999.
- 44. Babor TF, Dolinsky ZS, Meyer RE, Hesselbrock M, Hofmann M, Tennen H. Types of alcoholics: concurrent and predictive validity of some common classification schemes. *Br J Addict*. 1992;87:1415–1431.
- 45. Saunders JB, Aasland OG, Babor TF, De La Fuente JR, Grant M. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption–II. *Addiction*. 1993;88:791–804. doi: 10.1111/j.1360-0443.1993.tb02093.x.
- 46. Zamboanga BL, Schwartz SJ, Ham LS, Borsari B, Van Tyne K. Alcohol expectancies, pregaming, drinking games, and hazardous alcohol use in a multiethnic sample of college students. *Cogn Ther Res.* 2010;34:124–133. doi: 10.1007/s10608-009-9234-1.
- 47. Babor TF, Higgins-Biddle JC, Saunders JB, Monteiro MG. *The Alcohol Use Disorders Identification Test: Guidelines for Use in Primary Care.* 2nd ed. Geneva, Switzerland: World Health Organization; 2001.
- 48. O'Malley PM, Johnston LD. Epidemiology of alcohol and other drug use among american college students. *J Stud Alcohol*. 2002;14:23–39.

- 49. Roberts BW, Caspi A, Moffitt TE. The kids are alright: growth and stability in personality development from adolescence to adulthood. *J Pers Soc Psychol*. 2001;81:670–683. doi: 10.1037/0022-3514.81.4.670.
- 50. Bilsker D, Schiedel D, Marcia J. Sex differences in identity status. *Sex Roles*. 1988;18:231–236. doi: 10.1007/BF00287792.
- 51. Paul EL, McManus B, Hayes A. "Hookups": characteristics and correlates of college students' spontaneous and anonymous sexual experiences. *J Sex Res.* 2000;37:76–88.
- 52. Paul EL, Hayes KA. The casualties of 'casual' sex: a qualitative exploration of the phenomenology of college students' hookups. *J Soc Pers Relat.* 2002;19:639–661. doi: 10.1177/0265407502195006.
- 53. Owen J, Fincham FD. Young adults' emotional reactions after hooking up encounters. *Arch Sex Behav.* 2011;40:321–330.
- 54. Bradshaw C, Kahn A, Saville B. To hook up or date: which gender benefits? *Sex Roles*. 2010;62:661–669. doi: 10.1007/s11199-010-9765-7.
- 55. Chatav Y, Whisman MA. Marital dissolution and psychiatric disorders: an investigation of risk factors. *J Divorce Remarriage*. 2007;47:1–13.
- 56. Simon RW. Revisiting the relationships among gender, marital status, and mental health. *Am J Sociol*. 2002;107:1065–1096.
- 57. Hawkins AJ, Blanchard VL, Baldwin SA, Fawcett EB. Does marriage and relationship education work? A meta-analytic study. *J Consult Clin Psychol*. 2008;76:723–734. doi: 10.1037/a0012 584.
- 58. Fincham FD, Stanley SM, Rhoades GK. Relationship education in emerging adulthood: problems and prospects. In: Fincham FD, Cui M, eds. *Romantic Relationships in Emerging Adulthood*. New York, NY: Cambridge University Press; 2010: 293–316.

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