

Romantic relationships and the physical and mental health of college students

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Abstract

This study tested the hypothesis that, analogous to married individuals, college students in committed romantic relationships experience greater well-being than single college students. In a sample of 1,621 college students, individuals in committed relationships experienced fewer mental health problems and were less likely to be overweight/obese. There were no significant differences between groups in frequency of physical health problems. Examination of 2 models suggested that being in a committed romantic relationship decreases problematic outcomes largely through a reduction in sexual partners, which in turn decreases both risky behaviors and problematic outcomes. These results are discussed in the context of how premarital dating relationships may contribute to understanding of the observed association between marriage and well-being.

National survey data indicate that young adults (ages 18–29) have nontraditional attitudes about the importance of marriage as a social institution and about the need for marriage among those in childbearing or committed relationships (Gallup, 2006). In contrast to their attitudes, however, young adults tend to follow a fairly traditional path toward marriage. Seventy-six percent of 18- to 29-year-olds from a randomly selected national sample were currently married previously married, or never married but planning to marry in the future; only 13% of all respondents were in cohabiting unions (Gallup, 2006). Attitudes and behaviors related to marriage are important because they predict future marriage behaviors (e.g., Axinn & Thornton, 1993; Bayer, 1969) and research has repeatedly shown that marriage is associated with a number of positive outcomes.

Being married is linked to better *physical* health outcomes including lower morbidity and mortality (Lillard & Waite, 1995). Married couples are less likely to suffer from long-term medical conditions (e.g., cancer, spinal cord injury) and they have faster recovery rates and better chances at surviving when they do (Coombs, 1991; Goodwin, Hunt, Key, & Samet, 1987; Putzke, Elliot, & Richards, 2001). Similarly, mortality rates are lower for married individuals in causes of death that have a behavioral component such as lung cancer, cirrhosis of the liver, suicide, and accidents (Gove, 1973; Litwak et al., 1989; Smith, Mercy, & Conn, 1988; Sudhir Kumar, Mohan, Ranjith, & Chandrasekaran, 2006). With regard to cardiac health, research has demonstrated that body mass index (BMI) and changes in BMI over time are associated for married partners (Jeffery & Rick, 2002) and that married individuals, especially those in happy marriages, have better mortality rates for coronary diseases (Coyne et al., 2001; for review, see Hemingway & Marmot, 1999).

Marital status has also been consistently associated with better *mental* health. Compared with their married counterparts, single

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men and women have higher levels of depression, anxiety, mood disorders, adjustment problems, and other forms of psychological distress (Coombs, 1991; Cotten, 1999; Simon, 2002). Marital status has also been shown to be an important predictor of alcoholism and drinking problems (Hradilova, 2005), with unmarried people experiencing a higher rate of alcohol-related problems (Woodruff, Guze, & Clayton, 1972). In short, across a number of different indices, there is strong and consistent empirical evidence that married people experience better physical and psychological well-being than their unmarried counterparts.

Here it is worth noting that being single is not necessarily detrimental to one's health. DePaulo and Morris (2006) have noted that the protective impact of marriage on happiness and health may have been exaggerated in existing research because of the preconceived notions and biases of researchers; specifically, they argue that although differences may have emerged in previous research, these differences might not reveal such a stark contrast between married and singles when this research is viewed in its entirety and from a more objective perspective. Although it does not directly address this issue, the present study may shed further light on this issue since it examines unmarried individuals currently in or out of committed nonmarital romantic relationships.

Research on the protective impact of marriage has identified a number of mechanisms that might account for the relationship between marriage and well-being: selection, social support, and behavioral regulation. The *selection* hypothesis asserts that people with better psychological and physical health may be more likely to get married in the first place and to remain married (Lee, Seccombe, & Sheehan, 1991; Mastekaasa, 1992). Thus, the observed benefits attributed to marriage reflect selection effects rather than benefits actually derived from being married. The *social support* hypothesis suggests that marriage provides people with emotional satisfaction and buffers them against daily life stressors (Coombs, 1991). Accordingly, being married provides social support and the value of social support for individual well-being is widely

documented (e.g., Umberson, Chen, House, Hopkins, & Slaten, 1996). The *behavioral regulation* hypothesis postulates that marriage partners monitor each other's behaviors by discouraging risky behaviors and encouraging healthy ones. Several studies indicate that risk-preventing behaviors such as quitting smoking (or never smoking), maintaining a balanced diet, driving safely, and avoiding heavy drinking are more common among the married (e.g., Litwak et al., 1989). Also, empirical evidence suggests that being married is positively associated with proactive health beliefs and behaviors such as better dietary habits and compliance with medical regimens (Eng, Kawachi, Fitzmaurice, & Rimm, 2005; Markey, Markey, Schneider, & Brownlee, 2005).

Although the relationship between marital status and well-being has received substantial attention, less attention has been given to the potential benefits of other committed romantic relationships such as premarital romantic relationships. It is important to understand these romantic relationships because they are part of a developmental trajectory that often culminates in marriage. Many individuals begin serious dating relationships during what has been termed "emerging adulthood." Emerging adulthood is a unique developmental period marked by volatility and identity formation. It is also a time when many premarital relationships are in their nascent stages and thus remain open to the strains of this developmental period (Arnett, 2000).

Many individuals experience this transitional period from adolescence to adulthood in the context of college (e.g., 57% of young adults between 25 and 29 have attended some college; Stoops, 2004). The individual and contextual changes that occur throughout college push to the forefront a number of behaviors that can increase risk for negative physical and mental health outcomes. For example, Desiderato and Crawford (1995) found that approximately one third of sexually active students reported having multiple sex partners in the past 11 weeks. Within this group of students with multiple sex partners, approximately 75% reported inconsistent or no condom use. With regard to substance

use, 90% of college students report having used alcohol in the past year and approximately two in five college students engage in some sort of substance abuse (Prendergrast, 1994). Furthermore, 44% of college students report binge drinking within the past 2 weeks (Wechsler, Lee, Kuo, & Lee, 2000). Substance abuse is associated with negative consequences including academic difficulties, health and psychosocial problems, high-risk sexual behavior, and other risky behaviors such as driving under influence and dating violence (Rabow, Neuman, Watts, & Hernandez, 1987; Wechsler et al., 2002). In summary, risky behavior could act as a mechanism that explains a great deal of variance in the physical and mental health of college students.

Because emerging adulthood is a period when so many health-relevant habits are formed and relationships that culminate in marriage begin, gaining a clearer understanding of these processes is important. To the best of our knowledge, no research has specifically examined whether the physical and mental health benefits associated with marriage are also found in dating relationships among college students. In doing this, it would be ideal to be able to examine the viability of each of the hypothesized mechanisms (i.e., behavioral regulation, social support, and selection), but the archival nature of our data does not allow for this. The present study, therefore, examines whether physical health and mental health differ as a function of nonmarital romantic relationship status and whether risky behaviors mediate any association found between relationship status and well-being as would be predicted by the behavioral regulation hypothesis. Examining committed relationships among college students offers a snapshot of behaviors in premarital relationships and provides input as to whether the buffering effect observed in marriage has its roots in behaviors that begin in dating relationships.

The present study tests the following hypotheses:

H1: *Students in committed romantic relationships will exhibit better mental*

and physical health than their single peers.

H2: *Students in committed romantic relationships will be less likely to engage in risky behavior than those who are single.*

H3: *Risky behaviors will mediate the relationship between relationship status and health problems.*

Method

Participants and procedure

After obtaining approval from the institutional review board, a randomly selected sample of students at a large Southeastern public university whose names and addresses were obtained from the university's registrar's office was invited to participate in a comprehensive health assessment survey. We sent a letter to 4,485 students informing them they had been randomly selected to participate in a survey of health behaviors, indicating that the questionnaire would be mailed within a week and encouraging them to ask the principal investigator any questions they had about the study. A week later, the questionnaire and consent forms were mailed to the students. Participants were informed that the survey was voluntary and anonymous and that they could skip any question that they were not comfortable answering. Students were given the opportunity of winning 1 of 10 cash prizes of \$50 for completing the survey. A total of 1,621 students returned questionnaires (a 36% response rate). Of these, 37 participants were removed because they were married, divorced, or bereaved. The age of participants ranged from 18 to 25 years old, with the average age of participants being 20.19. Women represented 64% of the sample and the racial and ethnic backgrounds of the respondents were distributed as follows: White non-Hispanic, 73.3%; Black non-Hispanic, 9.3%; Hispanic, 9.5%; Asian, 3.6%; and Other, 3.7%.

Measurement

Participants completed the National College Health Assessment (American College Health

Association, 2005), a comprehensive measure of health-related behaviors, consequences of such behaviors, and various risk factors.

Relationship status

Participants indicated whether their current relationship status was "single," "married/domestic partner," "engaged or committed dating relationship," "separated," "divorced," or "widowed." Only those who indicated that they were "single" (scored as 0) or in an "engaged or committed dating relationship" (scored as 1) were included in the data analysis because including the small number of married, divorced, and bereaved individuals would have led to considerable imbalance in the statistical analyses, which would have proven too much of a threat to the statistical validity of the study.

Measures of health problems

Mental health problems. Students were asked to indicate whether during the last school year a number of mental health problems had caused them to experience academic problems ranging from 1 (*this did not happen to me*) to 5 (*received an incomplete or dropped the course*). The specific items asked if they had experienced academic problems as a results of "alcohol use," "depression/anxiety disorder/seasonal affective disorder," "drug use," "eating disorder/problem," "relationship difficulties," and "stress." The responses for these six items were summed, and could thus range from 6 to 30, with higher scores indicating poorer mental health. In the present sample, $\alpha = .61$. Given that the survey measures mental health problems only in relation to a specific outcome, academic problems, it provides a stringent test of our hypothesis because this scale only reports symptoms that generate substantial impairment for the respondent. It therefore provides a gross index of mental health and mitigates against yielding data to support our hypothesis.

Physical health problems

Students were asked to indicate whether during the last school year a number of physical health problems had caused them to

experience academic problems ranging from 1 (*this did not happen to me*) to 5 (*received an incomplete or dropped the course*). The specific items asked if they had experienced academic problems as a result of "cold/flu/sore throat," "injury," "mononucleosis," "sinus infection/ear infection/bronchitis/strep throat," and "sleep difficulties." Responses to these five items were summed, and thus scores could range from 5 to 25 with higher scores indicating poorer physical health. In the present sample, $\alpha = .57$. Again by measuring physical health problems only in relation to a specific outcome, the survey yields a very gross index of physical health. The use of such an insensitive measure mitigates against finding support for our hypothesis.

Overweight/obesity

Students were asked to indicate their height and weight. This information was used to calculate their BMI score, which was obtained by taking their weight in kilograms and dividing it by the square of their height in meters. BMI scores were then recoded to reflect the presence (coded as 1) or absence (coded as 0) of overweight/obesity according to the Centers for Disease Control and Prevention's Healthy People 2010 categories.

Risky behavior

Sexual partners. Because the number of sex partners a person has is linked to a number of negative health outcomes, such as contraction of cervicovaginal human papillomavirus (HPV; Burk et al., 1996) and hepatitis C (Alter, 1997), participants were asked to indicate the number of partners with whom they had engaged in any form of sexual intercourse (oral, vaginal, or anal) in the last school year.

Substance use

Frequency of alcohol (beer, wine, and liquor), tobacco (cigarettes, cigars, and smokeless tobacco), and illicit drug (marijuana, cocaine, amphetamines, etc.) use was assessed by asking the respondent how frequently he or she had used the substance in the past 30 days. Responses were obtained on an 8-point scale that ranged from 1 (*never used*) to 8 (*all*

Table 1. Descriptive statistics and correlations

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Tobacco	4.65	2.48	1.00										
2. All drug use	1.41	.64	.50	1.00									
3. Alcohol	3.91	1.80	.46	.44	1.00								
4. Binge drinking	2.30	2.01	.43	.46	.63	1.00							
5. Drink/drive	2.53	0.51	.24	.26	.45	.35	1.00						
6. Binge drink/ drive	2.16	0.38	.26	.30	.32	.45	.43	1.00					
7. Number of sexual partners	1.76	2.54	.23	.40	.33	.32	.19	.21	1.00				
8. Mental health	9.56	2.62	.29	.40	.31	.24	.12	.12	.29	1.00			
9. Physical health	7.90	2.07	.10	.15	.12	.09	.05	.00	.17	.49	1.00		
10. Overweight	0.25	0.43	.10	.02	-.04	-.03	.03	.02	.02	.01	.03	1.00	
11. Relationship status	0.44	0.50	.10	-.04	-.07	-.11	-.09	-.14	-.08	-.04*	-.01	-.10	1.00

Note. All correlations except for those in bold italics were significant at $p < .05$.

* $p = .08$.

30 days; Table 1). Frequency of binge drinking was determined by asking participants how many times they had drunk five or more alcoholic beverages at a single sitting over the past 2 weeks. Responses were coded from 1 (*none*) to 10 (*9 or more times*). Finally, participants were asked to indicate how often they had driven after having any alcohol and after having five or more drinks in the last 30 days. Responses were coded 1 (*not applicable/don't drink*), 2 (*no*), or 3 (*yes*).

Results

In the present analyses, relationship status (“engaged or committed relationship” vs. “single”) served as the independent variable. Unless otherwise indicated, we examined the dependent variables using multivariate analysis of variance (MANOVA). Mediation analyses were conducted using structural equation modeling (SEM) in Amos 6.0 and the PRODCLIN program. More details about preliminary considerations for the SEM analyses are included below.

Problematic outcomes

We first examined the hypothesis that individuals in committed relationships would experience fewer health problems than their single

counterparts. Accordingly, we assessed physical health problems, mental health problems, and overweight/obesity. Using Wilks’s lambda as our criterion, we observed a significant main effect for relationship status $F(3, 1480) = 4.373, p = .004$. Consistent with our first hypothesis, individuals in committed relationships experienced significantly fewer mental health problems ($d = .09, p = .049$) and had lower overweight/obesity scores ($d = .21, p = .003$) than single participants. However, there was no significant difference between the groups with regard to physical health problems.

Risky behaviors

Risky substance use

Risky substance use comprised frequency of alcohol, tobacco and illicit drug use, binge drinking, and drinking and driving. This analysis yielded a main effect for relationship status $F(6, 1192) = 7.402, p < .001$. Consistent with Hypothesis 2, individuals in committed relationships drank less often ($d = .14, p < .001$), were less likely to (a) binge drink ($d = .22, p < .001$), (b) drive after having drunk any alcoholic beverages ($d = .17, p = .004$), and (c) drive after having drunk five or more alcoholic beverages

($d = .28$, $p < .001$). However, there was no reliable difference between groups in tobacco or illicit drug use.

Sexual partners

An analysis of variance was conducted to examine whether groups differed in the number of sexual partners they had had in the last school year on the basis of relationship status. Participants in committed relationships had fewer sexual partners in the last school year than single participants $F(1, 1529) = 9.593$, $d = .16$, $p = .002$.

Mediational analysis

To test whether risky behaviors mediate the relationship between relationship status and well-being (hypothesis three), SEM using Amos 6.0 was utilized. In the model, relationship status was an exogenous manifest variable with risky behavior and problematic outcomes as endogenous, latent variables. Using latent variables is desirable for a number of different reasons, but one important advantage that latent variables confer is that they partial out the error from the observed variables (which is desirable given the relatively low internal consistency for the physical health indicator in the present study).

Before conducting analyses of the structural model, the goodness of fit of the measurement models for the latent variables was examined. The indicators for the risky behavior measurement model all contributed to a good fitting measurement model (root mean square error of approximation [RMSEA] = .07, Tucker-Lewis index [TLI] = .925, comparative fit index [CFI] = .973) so no changes were made. For the problematic outcomes measurement model, the BMI indicator did not significantly load onto the well-being latent variable ($\beta = .032$, ns) and was thus removed from the measurement model. Because the revised well-being measurement model was a saturated model, fit indices are not meaningful, but both indicators loaded well and statistically significantly onto the latent variable, which suggests a well-fitting measurement model. The full model composed of the measurement models and the relationship status indicator is displayed in Figure 1. This model provided a good fit to the data (RMSEA = .056, TLI = .928, CFI = .961).

With regard to mediation tests, research has demonstrated that the method of examining the product of the two paths that comprise the indirect effect divided by the pooled

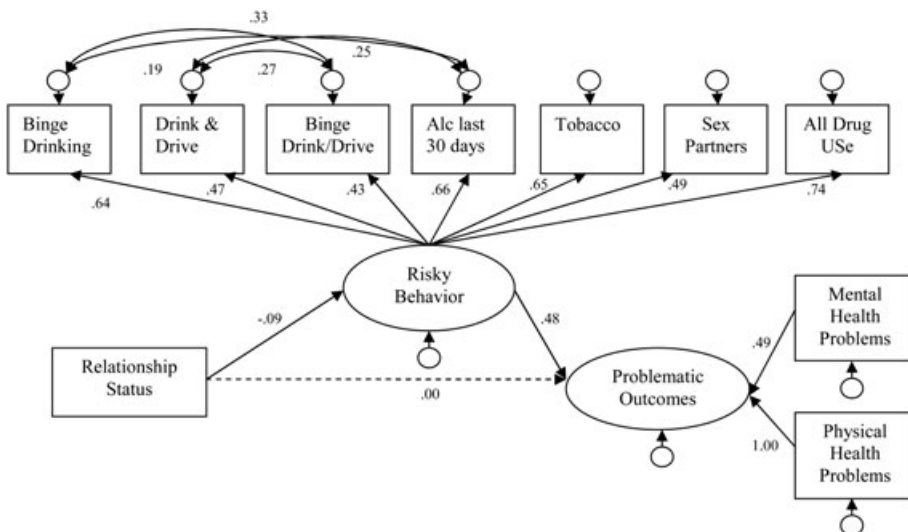


Figure 1. Mediational model examining the association between relationship status and problematic outcomes via risky behavior.

Note. Dashed line indicates path not significant at $p < .05$; all other paths significant at $p < .05$.

estimate of their standard error ($\alpha\beta/\sigma_{\alpha\beta}$) is less prone to some of the problems (e.g., inflated Type I error) that arise in other methods of examining mediation such as bootstrapping or the Sobel test (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Consequently, the PRODCLIN program (which performs the calculations described above) developed by MacKinnon, Fritz, Williams, and Lockwood (2007) was used to examine the impact of risky behavior. To do this, the product of the unstandardized path coefficients is divided by the pooled standard error of the path coefficients and a confidence interval of the indirect effect is generated. The unstandardized path coefficients and standard errors of the path coefficients for the indirect effect of relationship status on problematic outcomes via risky behavior were entered into PRODCLIN to yield lower and upper 95% confidence limits of $-.036$ and $-.150$. This indicates that the presence of less risky behavior among those in committed romantic relationships mediates the association between relationship status and problematic outcomes.

Examination of alternate models

Because it is possible that the number of sexual partners an individual has is more connected to relationship status than to risky behavior, an additional model was tested in which the sexual partners indicator acted as an independent mediator among relationship status, risky behaviors, and problematic outcomes. This model fit the data well ($RMSEA = .056$, $TLI = .928$, $CFI = .963$) and did not provide a significantly different fit to the data than the original model $\chi^2\Delta(7) = 11.61$, *ns*. This model showed that being in a committed romantic relationship is associated with having fewer sexual partners ($\beta = -.08$, $p < .01$) and that having more sexual partners is directly associated with problematic outcomes ($\beta = .09$, $p < .01$) such that having more sexual partners predicts poorer physical and mental health. These results suggest that being in a committed romantic relationship decreases problematic outcomes largely through a reduction in sexual partners, which is associated with decreases in both risky behaviors and problematic outcomes.

Ruling out potential dependencies

It is problematic, statistically speaking, that two of our hypothesized risky behaviors (alcohol use and drug use) are also components of one of our dependent variables (which measures problems that arise from drug and alcohol use). As such, we examined the same model where questions that deal with mental health problems as a consequence of alcohol or drug use were removed from the mental health indicator. These changes to the model did not significantly change its fit (Akaike's information criterion [AIC] $\Delta < 10$). In the revised model, the path from relationship status to risky behavior remained significant ($\beta = -.08$, $p < .05$). The loading from risky behavior to problematic outcomes was attenuated ($\beta = .15$), but this new loading retained its significance and the risky behavior latent variable remained a significant mediator of the association between relationship status and problematic outcomes (95% confidence interval [CI] = $-.034$ to $-.001$). This suggests that the observed findings are not simply an artifact of dependencies in the data.

Discussion

The present study tested the hypotheses that college students in committed romantic relationships experience fewer health problems than single college students (Hypothesis 1), engage in fewer risky behaviors (Hypothesis 2), and that their level of engagement in risky behavior mediates the association between relationship status and health (Hypothesis 3). Consistent with our initial hypothesis, individuals in committed relationships experienced fewer mental health problems and were less likely to be overweight/obese. However, there were no significant differences between groups in frequency of physical health problems. Our second hypothesis was also supported as college students in committed dating relationships engaged in less risky behavior (e.g., binge drinking, driving while intoxicated) than their single counterparts. In confirmation of our third hypothesis, mediational analyses revealed that the occurrence of less risky behaviors among those in committed relationships mediated the association

between relationship status and health problems. Examination of an alternate model suggested that being in a committed romantic relationship is associated with less problematic outcomes largely via a reduction in number of sexual partners, which, in turn, decreases both risky behaviors and problematic outcomes.

Several mechanisms have been proposed to account for the relationship between marriage and increased health, including selection, social support, and behavioral regulation. Although the present study does not offer a direct test of each of these hypotheses, it does provide information relevant to the viability of one of these potentially mediating variables; it provides additional support for the behavioral regulation hypothesis. Previous research indicates that married individuals regulate their behavior in ways that are conducive to good health (Umberson, 1987). The present study supports the viability of this mechanism for committed relationships among college students by demonstrating that regulation of risky behavior mediated the effect of relationship status on health.

Why do individuals in committed relationships engage in less risky behavior? Perhaps the most prosaic explanation is that they simply have less time to devote to risky behaviors since a portion of their time is now spent with the partner. Similarly, it is possible that the types of risky behaviors assessed (multiple sex partners, substance use) are incompatible with the less impulsive lifestyle committed relationships seem to foster. Indeed, the present study provides evidence that having fewer sexual partners is one mechanism that leads to fewer risky behaviors. It is likely that the process of dating and partner selection, especially among single, sexually active college students, is intertwined with substance use and risky behavior (i.e., drinking and driving), which leads to poorer physical and mental health. Another possibility is that heavier substance users are unable to keep romantic partners around and are thus more likely to be single. Among married couples, alcohol use is associated with higher levels of marital dissatisfaction, negative marital interaction patterns, marital infidelity, and violence

in the relationships (Hall, Fals-Stewart, & Fincham, 2008; Marshall, 2003); perhaps the same association holds for college students and contributes to relationship dissolution.

It is also interesting to note having more sexual partners was directly associated with more physical and mental health problems. Although the present data cannot offer evidence for mechanisms other than risky behaviors, it seems that the most likely explanation is that having more sexual partners places an individual at higher risk of experiencing a sexually transmitted infection and its sequelae. It is also possible that having multiple sex partners creates more general stress, which leads to more problematic health outcomes. Conversely, it is equally plausible that individuals with more mental health problems or diatheses for such problems are more likely to have more sexual partners. Indeed, Hall and Fincham (2009) show that psychological distress predicts dating infidelity rather than vice versa. Further longitudinal research is needed that addresses number of sexual partners specifically to help sort out this issue.

Although we found that individuals in committed romantic relationships were less likely to be overweight and less likely to experience mental health problems, physical health problems were not significantly related to relationship status. This was surprising given the established association between physical health problems and marital status (Bennett, 2006). Our data speak to an earlier developmental period involving relationships that have the potential to culminate in marriage and thereby accrue the potential health benefits conferred by marriage. By examining the association between relationship status and health problems in these premarital relationships, we can more clearly discern the developmental trajectory of the protective impact of intimate relationships on health problems. Specifically, by considering what is shared versus unique in premarital relationships and marriage, it may be possible to understand why marriage confers more health benefits than committed dating relationships. There are a number of potential reasons why physical health problems were not significantly associated with relationship status in our study.

Perhaps the simplest explanation is that our sample is largely young, healthy individuals and thus there is very little physical health variance at play here. Or, it is possible that committed premarital relationships do not possess the same “active ingredients” that are at work in marriage. An example of a potential active ingredient is commitment. College dating relationships are not marked by the same high level of commitment inherent in marriage. Previous research (Van Lange et al., 1997) has found that willingness to sacrifice for the partner is positively associated with positive couple functioning and that there is a strong, positive correlation between willingness to sacrifice and commitment. Kamp Dush and Amato (2005) conceptualized committed relationships as lying on a continuum of commitment, with marriage at the highest point of the continuum and casual (noncommitted) dating relationships at the lowest point. They found that increasing commitment was associated with greater self-reported subjective well-being. In addition to differences in commitment, marriage is distinct from committed relationships among college students in a number of practical ways. Marriage encourages individuals to divide labor, pool assets, and specialize in specific behaviors in ways that are mutually beneficial (Waite & Lehrer, 2003); these benefits are not likely to be present in most committed relationships among college students and may be the active ingredients of intimate relationships that lead to improved physical health.

Another explanation involves the selection hypothesis. One of the chief mechanisms proposed to drive the observed benefits of marriage is that healthy individuals select into marriage while less healthy individuals are more likely to remain single. The present study suggests that premarital dating relationships may provide health benefits similar to marriage, but not as comprehensive as marriage. It is possible that selection effects are at work even in premarital dating relationships, but because more dating is likely to occur before the final most committed step is taken (marriage), the “signal” of health is obscured by the “noise” of less

healthy individuals who have not yet been filtered out. In other words, as relationships become increasingly more committed, less healthy individuals are winnowed away, leaving a pool of individuals selected for their healthiness. Future research employing longitudinal designs is needed to examine whether this explanation provides a veridical account of the diminished impact of committed premarital relationships on well-being relative to that of marriage.

The findings of the present study need to be viewed in the light of several limitations. First, because the data are cross-sectional, causal relationships cannot be inferred. Relatedly, temporal precedence cannot be established from our data; thus, we cannot rule out the possibility that individuals who have poor physical and mental health engage in more risky behavior and thus do not enter or stay in committed relationships. However, given the pattern in previous marital research in which transitions into marriage predict increased health (e.g., Kim & McKenry, 2002), it is likely that the same temporal pattern unfolds in college dating relationships. In any case, establishing the temporal sequence of the effects observed in the present study would be a good next step in future research on this topic. Second, the obtained response rate was lower than optimal and limits the generalizability of our findings to a degree. Third, the outcome variables in this study specifically examined whether symptoms of physical and mental illness impaired academic performance. Thus it is possible that our participants had symptoms of physical or mental illness that were not accounted for in the present study because they were not relevant to academic performance or because they were not severe enough to impair academic performance. By measuring physical health problems only in relation to a specific outcome, our outcome variables yielded an insensitive index of physical and mental health that mitigated against finding support for our hypothesis, so in one sense this limitation may bolster confidence in the obtained pattern of results since our hypotheses were supported despite the riskiness of our prediction (Popper, 1959). On the other hand, it is unclear

whether a measure of health outcomes with a less specific focus would produce the same pattern of results; thus, replication of the present findings with less specific outcome measures could clarify this issue. Fourth, our study did not differentiate between individuals who were engaged versus dating, and we had no information about whether the individuals were living together or separately. Previous research suggests that each of these factors could have moderated the observed effects. Finally, it should be noted that the psychological literature on well-being and marriage has moved beyond simply looking at relationship status to examine the moderating role of relationship quality. This research has consistently found that individuals in satisfying relationships exhibit greater well-being across a number of different indices (see Kiecolt-Glaser & Newton, 2001) and that improving relationship quality leads to commensurate gains in mental health (Beach, Fincham, & Katz, 1998). However, those in poor quality relationships do not experience the same benefits and may, in fact, be at increased risk for a number of physical and mental health problems ranging from compromised immune functioning (Kiecolt-Glaser et al., 1987) to depression (Beach, Katz, Kim, & Brody, 2003; Fincham, Beach, Harold, & Osborne, 1997) to mortality (Kiecolt-Glaser & Newton, 2001).

With the above observation in mind, what is to be made of the obtained pattern of results in the present study since we had no measure of relationship satisfaction? Two observations are relevant to this question. First, the vast majority of college dating relationships are satisfying. Unlike marriage, college daters have few if any institutional or legal barriers that mitigate against relationship dissolution. Consequently, if a college dating relationship is no longer satisfying, or if it is inconsistently satisfying, it dissolves (Arriaga, 2001). Moreover, research has demonstrated that college students in committed relationships idealize their romantic partners and ascribe characteristics to them that are more positive than is truly warranted (Murray, Holmes, & Griffin, 1996). These positive illusions maintain satisfaction in college dating relationships even

when there are threats to the quality of the relationship that might bring about its dissolution. In short, while there was no direct measure of satisfaction in our study, data on college dating relationships suggest that our sample was made up largely of individuals in satisfying relationships.

Second, recent research suggests that relationship status continues to account for unique variance in well-being even when controlling for relationship satisfaction. Kim and McKenry (2002) used longitudinal data from a nationally representative sample to examine the relationship among psychological well-being, relationship quality, and relationship status. In this study, marital status was found to be a significant predictor of well-being even when controlling for relationship quality such that being married predicted greater well-being than all other types of romantic relationships. Thus, while it is not ideal, there is value in conducting research that examines relationship status even when data on relationship quality is absent. This is especially true in research like the present study that examines associations between relationship categories and variables that have not been previously studied.

It is remarkable that the observed pattern of results were found despite the gross index of relationship status used. Recall, participants identified their current relationship status as "engaged or committed dating relationship." As such, this group could have included individuals who had been dating for a week and individuals who were engaged to be married in a week. It is quite unlikely, in fact, that many individuals in the sample were engaged. An estimate based on a separate sample drawn from the same population ($n = 660$) suggests that only 4% of students in this population are engaged to be married (Braithwaite, 2006). If this is an accurate estimate, then the observed beneficial effect was observed in a sample with an overwhelming majority of individuals in self-defined "committed" relationships.

The results of this study represent the first examination of global health benefits that may derive from committed dating relationships among college students. This is important because the college student population

is marked by so many risky behaviors, and emerging adulthood is a period when so many health-relevant habits are formed and relationships that culminate in marriage begin. In addition to providing insight into the protective role of committed relationships among college students, this article extends previous research by providing a clearer understanding of the role of risky behaviors in premarital relationships and whether these behaviors play a role in an earlier stage of a developmental course that often culminates in marriage.

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