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Partner Conflict and Support as Moderators of Alcohol Use on Alcohol Problems and Marital Satisfaction in Young Adult Marital Dyads

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Abstract

Background: This cross-sectional study used data from 483 young adult marital dyads to evaluate conflict-with-partner and support-from-partner as moderators of alcohol use on two outcomes: alcohol problems and marital satisfaction. A path analytic modeling approach was used to test stress-exacerbating and stress-buffering hypotheses, and to accommodate the interdependent nature of the dyadic data.

Method: This cross-sectional sample was selected from an adolescent-to-young adult longitudinal study in which spouses were recruited into the study during a later young adult assessment when the sample was, on average, 32.5 years old. Individual interviews using computerized technology were conducted with each participant.

Results: Findings for the outcome of alcohol problems indicated stress exacerbation in that higher conflict by each partner in interaction with higher alcohol use was associated with more alcohol problems for wives. Husbands' and wives' alcohol problems were lower when higher partner support buffered the association between alcohol use and alcohol problems. For the outcome of marital satisfaction, higher support-from-partner buffered the association between alcohol use and marital satisfaction. Finally, the combination of alcohol use and conflict-with-partner had more adverse implications for women's alcohol problems relative to men's alcohol problems.

Conclusions: These findings highlight that interactions between interpersonal dimensions of romantic relationships and alcohol use by both partners contribute to our understanding of their associations with alcohol problems and marital satisfaction within the marital relationship. Furthermore, there was some sex-specificity in that some interactions were more prominently associated with alcohol problems for wives than husbands.

Keywords

Marital dyads; alcohol use; alcohol problems; partner conflict; partner support

Alcohol and other substance use are associated with the quality of marital relationships, marital satisfaction, and marital dissolution among young adult dyads (Derrick and Leonard,

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2016). Higher levels of use (especially heavy/problematic use and disorders) are related to lower levels of marital quality and satisfaction, and higher levels of divorce; lower levels of use are related to higher levels of marital quality, satisfaction, and relationship longevity (Collins et al., 2007; Homish et al., 2009; Kearns-Bodkin and Leonard, 2005; Marshal, 2003). The putative association between heavier, more problematic patterns of substance use and greater relationship dissatisfaction and dissolution may be due, in part, to the quality of interactions (e.g., levels of conflict and support) within the romantic relationship (Fischer and Wiersma, 2012; Marshal, 2003; Rodriguez and Neighbors, 2015). For instance, research has indicated consistently that higher levels of conflict (e.g., verbal and physical aggression) differentiate marital dyads in alcohol treatment from non-treatment samples, as well as general population studies of those at higher versus lower risk for alcoholism (Derrick and Leonard, 2016; Leonard and Eiden, 2007).

Previous research utilizing main effects modeling has demonstrated significant associations between substance use phenotypes (e.g., binge drinking, alcohol intoxication, marijuana use) and romantic relationship characteristics (e.g., marital quality and satisfaction, levels of intimacy, divorce) (Collins et al., 2007; Cranford et al., 2011; Fischer et al., 2005; Levitt and Leonard, 2013). In the current study, in addition to including substantively-important variables whose main effects were controlled for (e.g., conflict-with-partner, support-from-partner), a primary objective was to test interactions related to stress exacerbation (e.g., *alcohol use x partner conflict*) and stress buffering (e.g., *alcohol use x partner support*) and their associations with alcohol problems and marital satisfaction. In addition, we tested whether these moderating relationships differed for husbands and wives.

The usefulness of a moderational model is supported when considered within the context of the quite complex and dynamic relational qualities of the marital relationship. That is, each member of the marital dyad influences not only his or her own (self) attitudes, beliefs, and behaviors, but also those of his or her partner. Indeed, it has been suggested that, because marital couples are so intertwined, the relationship that emerges based on the interactions of these two separate individuals represents a unique construct characterized by its own way of functioning (Rodriguez et al., 2014). This interdependence of marital partners explains, in part, the substantial impact that heavy/problematic alcohol use may have on marital quality and satisfaction. That is, alcohol use is a behavior that affects both partners, and research has indicated that the interpersonal processes surrounding such use within the marital context are complex (Marshal, 2003; Haber and Jacob, 1997; Roberts and Leonard, 1998; Rodriguez et al., 2014). For example, Roberts and Leonard identified several factors that moderated the alcohol use/marital satisfaction relationship, including drinking together versus drinking apart, drinking within the home versus drinking outside the home, and concordant versus discrepant levels of alcohol use within the dyad. Likewise, Levitt and Cooper (2010) with a sample of dating couples found that concordant (versus discrepant) drinking and drinking together (versus apart) had an adaptive influence on the romantic relationship and, in terms of the latter, this was especially the case for women. These findings suggest that a moderation (or interactional) model may better represent the dynamic dyadic processes that contribute to the alcohol use-marital satisfaction relationship.

Research has found that the quality of romantic relationships (e.g., partner support and conflict) moderates the association between alcohol use and the outcomes of alcohol problems and relationship satisfaction and has suggested a reciprocal (or circular) process whereby alcohol use impacts relationship quality and relationship quality, in turn, impacts alcohol use (Rodriguez et al., 2014). Furthermore, this cycle may be either positive (stress-buffering) or negative (stress-exacerbating) in nature (Levitt and Cooper, 2010). For instance, findings by Jarnecke and South (2014) with an adult twin sample indicated that when romantic partner support was lower, individuals were more vulnerable to the impact of environmental stressors that contributed to more alcohol problems. This was not the case when romantic partner support was higher; that is, higher partner support provided a protective “barrier” (or buffer) from environmental circumstances that increased the risk of alcohol problems. This association was not indicated either for parent or friend support, and the authors concluded that romantic partners become dominant sources of support in adolescence and adulthood, influencing increases and decreases in alcohol problems. With regard to conflict, daily diary studies have supported the temporally proximal relationship between higher levels of alcohol use and greater conflict within romantic partnerships (Fischer et al., 2005; Moore et al., 2011; Testa and Derrick, 2014). For example, among a community sample of romantic (mostly married) dyads, Testa and Derrick reported that the consumption of alcohol increased the odds of experiencing both verbal and physical conflict four hours later, and it occurred equally between male and female partners with alcohol increasing the likelihood of both perpetration and victimization. Furthermore, higher quantities of alcohol consumption intensified the risk of subsequent conflict. In the Jarnecke and South study, partner support buffered the impact of stress on alcohol problems, whereas Testa and Derrick found that alcohol exacerbated the occurrence of verbal and physical conflict between partners.

Sex Differences.

Within marital dyads, wives’ problematic use of alcohol (e.g., heavy drinking, alcohol use disorders) is more strongly associated with marital conflict (Cranford et al., 2015; Haber and Jacob, 1997), dissatisfaction (Rodriguez and Neighbors, 2015), separation (Ramisetty-Mikler and Caetano, 2005), and divorce (Kessler et al., 1998) relative to husbands’ alcohol use. For example, Cranford et al., using a combination of behavioral observation and daily diary methods, found that female probands (i.e., had a past-12 month AUD) within marital dyads reported higher levels of marital conflict with their spouse relative to their male proband counterparts. Interestingly, for female probands (but not male probands), positive interactions with their spouse during the day were associated with lower levels of intoxication that evening, suggesting that positive interactions reduced (or buffered) the odds of intoxication for wives’ with an AUD. Also using a daily diary methodology, Levitt and Cooper (2010) found a stress-exacerbation effect in that women who felt less emotionally-connected to their partner were more likely to consume alcohol that day and, if they did consume, drank at heavier levels. This interaction was not evident for males in the study. In summary, research findings have suggested that the associations between alcohol use and emotional features of the relationship (e.g., relationship quality and satisfaction) may be stronger and more robust for women relative to men (Cranford et al., 2011).

Study Hypotheses

The above findings provide support for testing three hypotheses that are the focus of the current study.

Hypothesis 1: Higher alcohol use in interaction with higher conflict-with-partner will be significantly associated with higher levels of alcohol problems and lower levels of marital satisfaction (stress-exacerbation).

Hypothesis 2: Higher alcohol use in interaction with higher support-from-partner will be significantly associated with lower levels of alcohol problems and higher levels of marital satisfaction (stress-buffering).

Hypothesis 3: Associations detailed in the above two hypotheses will be more robust for wives than for husbands.

MATERIALS AND METHODS

Participants

The data used in this study were collected as part of a larger, multi-wave panel design focused on risk factors and adolescent substance use and mental health (Windle & Wiesner, 2004). The initial principal objective of the study was to assess the onset, escalation, maintenance, and continuation (or termination) of alcohol and other substance use among 1205 teens during the high-school years (with four waves of assessment at six-month intervals occurring from 1988–1990) in relation to a range of risk factors (e.g., temperament, peer substance use, and family history of alcoholism). Data were collected within the adolescents' high-school settings and the overall student participation rate was 76%, with retention across waves exceeding 90%.

The study design and focus shifted during Waves 5–7 in that assessments occurred at three 5-year intervals, the focus shifted from adolescence to the transition from adolescence to young adulthood (Wave 5, Mean age=23.5 yrs.; Wave 6, Mean age=28.5 yrs.; Wave 7, Mean age=32.5 yrs.), and personal interviews (rather than group-administered, in-school surveys) were conducted with each participating member. There continued to be a focus on changes in alcohol and other substance use across time, but these waves also included an emphasis on age-appropriate developmental domains (e.g., romantic relationships) and events (e.g., marriage) that may influence and be influenced by alcohol and other substance use. At all waves of the study, confidentiality was assured with a U.S. Department of Health and Human Services Certificate of Confidentiality. This study was reviewed and approved by the Institutional Review Board of the University at Buffalo. Signed informed consent was obtained from each participant before each wave of assessment.

At Wave 7, if young adults were married, their spouses were invited to participate. Data were collected from 828 young adults at W5 (153 refused participation and 224 did not participate for various reasons such as we were unable to locate them, they were serving in the military overseas, they were foreign exchange students during adolescence and returned to their country-of-origin after high school), 779 at W6, and 801 at W7. Across the course of this longitudinal study, 46.8% of subjects participated at all 7-waves, 20.4% at 6-waves,

17.8% at 5-waves, 13% at 4-waves, and less than 2% at less than 4-waves; hence, 85% of the young adult sample participated at five or more waves of measurement. Extensive attrition analyses were conducted comparing participants who completed surveys and those who did not and we concluded that attrition bias was minimal (see Windle & Wiesner, 2004 for a full description of attrition analyses).

Wave 7 data collection included efforts to collect data from the spouses of participants who indicated that they were married at this assessment. This resulted in 483 married couples, which was 40.1% of the original sample of 1205 adolescents, 60.3% of the sample of participants at Wave 7 (28.7% were single, never married; 10% were divorced; and 1% were widowed), and 89.1% of those with an eligible positive marital status at Wave 7.

For the 483 marital dyads, ages at Wave 7 were 32.91 years ($SD = 2.83$) for wives and 34.61 years ($SD = 3.25$) for husbands. Average level of educational attainment for wives was 16.34 years ($SD = 2.39$) and for husbands was 15.67 years ($SD = 2.64$). The vast majority of participants identified as non-Hispanic white (wives, 97.7%; husbands, 95.5%), and most husbands were employed full-time (93.2%), whereas 56.9% of wives were employed full-time, 23.8% part-time, 14.7% were full-time homemakers, and 4.6% were unemployed. The average length of marriage at Wave 7 was 5.32 years ($SD = 3.38$) and average family income (both mean and median) was 8.11 ($SD = 1.30$; with 8=\$55,000-\$89,999).

Procedure

At Wave 7, one-on-one interviews were conducted either in the participants' homes or at the investigators' host institute. Each marital partner was interviewed separately and was paid \$40 to complete an interview that lasted approximately 2 hours. Computer-assisted personal interviews (CAPI) were used to collect data. Blaise 4@ Windows@ software with visual basic interface was used for the CAPI system.

Measures

The same set of measures were completed by each spouse:

Sociodemographic variables.—A series of questions were asked pertaining to marital status, duration of marriage, education level, occupational status, and family income.

Alcohol use.—A quantity-frequency index (QFI) of alcohol use was derived from questions related to the quantity and frequency with which participants consumed various types of alcohol (beer, wine, hard liquor) in the past six months. After applying standard conversion formulas (for example, see Armor and Polich, 1982) for the average amount of ethanol in each of the various beverage types, we obtained a measure of the average ounces of absolute alcohol consumed per day over the past six months. Due to non-normality, the QFI score was log transformed ($\ln$ of score+10).

Alcohol Problems Index (API).—Thirteen items were used to assess a range of undesirable consequences of drinking alcohol during the previous six months (Windle and Windle, 2017). Items measured experiences during, or as a consequence of, alcohol use in domains such as compulsive drinking style and loss of behavioral control. Each item was

scored as “0” (no problem reported) or “1” (experienced this problem 1 time in the past six months) with total scores ranging from 0–13. Alphas were .79 for young adults and .76 for spouses, and prior reports of test-retest reliability coefficients across six-month intervals have ranged from .61–.69 (Davies and Windle, 1997).

Marital/Partner Satisfaction.—Participants completed the three-item Kansas Marital Satisfaction Scale (KMSS; Schumm et al., 1986). A sample item was “*How satisfied are you with your partner?*” with a 7-point Likert scale that ranged from 1=“*Extremely Dissatisfied*” to 7=“*Extremely Satisfied*”. Alphas for this sample were .97 for young adults and .98 for spouses, and in prior research the KMSS correlated .80 or above with the Dyadic Adjustment Scale (Spanier, 1976).

Quality of Relationships Inventory (QRI).—The QRI (Pierce, 1994; Pierce et al., 1991) is an 18-item self-report measure that assesses partner relationship-based perceptions of emotional support-from-partner and conflict-with-partner. In the current study, each participant was requested to complete the items in reference to their spouse. The QRI assesses dimensions of: 1) *relationship support*, which reflects the extent to which the participant can rely on the referent person (e.g., spouse, father) for assistance across different types of situations (e.g., *To what extent can you really count on this person to distract you from your worries when you feel under stress?*); and 2) *interpersonal conflict*, which refers to the extent that the participant experiences angry or ambivalent feelings toward the referent person (e.g., *How angry does this person make you feel?*; *How much do you argue with this person?*). A 4-point Likert scale was used that ranged from 1=“*not at all*” to 4=“*very much*”. Alphas were .92 for the conflict scale for both young adults and spouses, and .91 and .88 for the support scale for young adults and spouses, respectively.

Analytic Approach

A path analytic modeling approach was used to specify, test, and evaluate the hypotheses with the dyadic data (*Mplus*; Muthén and Muthén, 1998–2017). Wendorf (2002) demonstrated the near identical results between path models and hierarchical linear modeling approaches for couples’ data. Four separate models were specified, one each for the dependent variables of alcohol problems and marital satisfaction by conflict (two models) and by emotional support (two models). For each equation, consistent with standard dyadic analysis, the outcome variables included the scores of both husbands and wives (e.g., husband’s alcohol problems and wife’s alcohol problems). Each of the models included 14 predictors. The first eight predictors for each of the four models were husband and wife age (2 variables), education (2 variables), and alcohol use (2 variables), family income (1 variable), and duration of marriage (1 variable). Then for the two conflict models, husband and wife conflict-with-partner scores were included (2 variables), along with four, 2-way interaction terms that crossed each partners’ alcohol use score with each partners’ conflict score (e.g., *wife’s reports of her own alcohol use x wife’s reports of conflict with her husband*; *husband’s reports of his own alcohol use x wife’s reports of conflict with her husband*; 4 predictors). A graphic illustration for the prediction of alcohol problems is provided in Figure 1. An analogous procedure was used to specify the two models of partner

support, with support-from-partner replacing conflict-with-partner in the previous model description.

In specifying, estimating, and evaluating these path models, the models were saturated (124 parameters were estimated for each model specified and there were 120 elements in the variance-covariance matrix) and hence goodness of model fit statistics were not provided. However, relative to more restrictive standard OLS regression modeling, the path model did enable the specification of correlated error/residual structures to facilitate the analysis of the interdependent couple data (Wendorf, 2002), efficient statistical parameter estimates, and the estimation of missing values (less than 2%) using full information maximum likelihood estimation.

RESULTS

Preliminary Analyses.

The correlation matrix and means and standard deviations for the variables used in the path analyses are provided in Table 1. Correlations between husbands and wives indicated high rates of agreement for conflict-with-partner ($r = .55, p < .001$) and marital satisfaction ($r = .40, p < .001$), low-to-moderate agreement for alcohol use ($r = .20, p < .001$) and alcohol problems ($r = .13, p < .01$), and a significant bivariate association for support-from-partner ($r = .70, p < .001$).

Hypothesis 1: Higher alcohol use in interaction with higher conflict-with-partner will be significantly associated with higher levels of alcohol problems and lower levels of marital satisfaction. Findings for the path models that included two-way interactions for alcohol problems and marital satisfaction are summarized in Tables 2 and 3, respectively.

Conflict-with-partner/Alcohol problems.

As indicated in Table 2, our first hypothesis was partially supported in that *alcohol use x conflict-with-partner* interactions were statistically significant for three of the four coefficients for wives' alcohol problems, but none of the four was significant for husbands' alcohol problems. We followed standard regression procedures (Aiken and West, 1991) and plotted the simple slopes at ± 1 *SD* from the intercepts (see simple slope findings in Figure 2). Figure 2 illustrates the general finding for all three significant interactions. As indicated in Figure 2, when husbands reported higher levels of conflict with their partner, wives' reports of alcohol use were positively associated with wives' reports of alcohol problems. This association was not apparent when husbands reported lower levels of conflict with their partner. A similar pattern was indicated in the other significant interactions, whether partner conflict was reported by wives or whether lower or higher alcohol use was reported by husbands.

Conflict-with-partner/Marital satisfaction.

As summarized in Table 3, only one of eight *alcohol use x conflict-with-partner* interactions was associated with marital satisfaction. As indicated in Figure 3, when wives reported lower levels of conflict with their partner, wives' reports of higher alcohol use were

positively associated with husbands' marital satisfaction. This association was not apparent when wives reported higher levels of conflict with their partner.

Hypothesis 2: Higher alcohol use in interaction with higher support-from-partner will be significantly associated with lower levels of alcohol problems and higher levels of marital satisfaction. Findings for the path models that included two-way interactions for alcohol problems and marital satisfaction are summarized in Tables 2 and 3, respectively.

Support-from-partner/Alcohol problems:

Findings from Table 2 indicated that our second hypothesis, that *alcohol use x support-from-partner* interactions would be significantly associated with alcohol problems, was partially supported in that two of the eight interaction coefficients were statistically significant. The findings indicated that when wives and husbands reported higher alcohol problems, husbands' reports of higher partner support moderated the relationship whether wives' reports of alcohol use were lower or higher. This is consistent with a stress-buffering effect in that even in the context of higher alcohol use by wives, husbands' reports of higher levels of partner support were associated with lower levels of alcohol problems.

Support-from-partner/Marital satisfaction.

Findings in Table 3 indicated that two of the eight *alcohol use x support-from-partner* interactions were statistically significant. As illustrated for one of these interactions in Figure 4, when wives reported higher levels of support from their partner, husbands' reports of alcohol use were positively associated with wives' marital satisfaction. This association was not apparent when wives reported lower levels of support from their partner. Similar findings were indicated for the prediction of husbands' marital satisfaction. These interactions are supportive of a stress-buffering function in that higher partner support in the context of higher partner alcohol use were associated with higher reported marital satisfaction by both wives and husbands.

Hypothesis 3: Associations detailed in the above two hypotheses will be more robust for wives than for husbands. Our third hypothesis was partially supported in that associations between the interaction terms and outcome variables were, in some instances, more robust for women relative to men. This support is most evident by the finding that three of the four *alcohol use x conflict-with-partner* interactions were significant for wives' alcohol problems whereas none were significant for husbands' alcohol problems (see Table 2 and Figure 2). In general, these interactions indicated that there was an exacerbation effect in that higher levels of reported alcohol use in conjunction with higher levels of reported conflict were associated with more alcohol problems for wives but not for husbands, suggesting that these dyadic processes had a more robust negative impact on females' alcohol problems relative to males'.

To further buttress the evaluation of differences in the interactions for wives and husbands, equality constraints were applied for each of the six interactions where the parameter estimates were statistically significant for one partner but not for the other partner. The results of these comparisons are summarized in Table 4 and all six comparisons indicated

that constraining the parameter estimates to equivalence was rejected; hence, these findings are consistent with the prior analyses indicating sex differences.

Ancillary Analyses

A model was specified that included both conflict and support dimensions and interactions in the same model and results were highly similar to those reported in Tables 2 and 3; hence, findings were robust across model specifications. For ease of presentation and concerns about collinearity in testing 16 two-way interactions in a single model, we retained the separate conflict and support models.

DISCUSSION

Interrelationships among alcohol use and interpersonal domains (such as conflict and support) and outcomes (such as alcohol problems and marital satisfaction) have been reported frequently in the marital and family literatures for both clinical and general population samples (Derrick and Leonard, 2016; Fischer and Wiersma, 2012; Marshal, 2003; Rodriguez et al., 2014). The current study contributed to this literature by focusing specifically on stress-exacerbation and stress-buffering models with young adult marital dyads to evaluate interactions of alcohol use by partner relationship characteristics (i.e., conflict and support) on alcohol problems and marital satisfaction. Although a number of the interaction terms included in the path analyses were not significantly associated with the dependent variables, after accounting for covariates (e.g., age, duration of marriage) and substantively-important variables (e.g., alcohol use, support-from-partner), there were nevertheless a number of interaction terms that were significantly associated with alcohol problems and marital satisfaction. These interactions suggested stress-exacerbating and stress-buffering processes occurring within the marital dyadic relationship. Furthermore, there was some gender-specificity for several of the interactions that suggested more adverse effects on alcohol problems for wives relative to husbands. In addition, the marital dyad design enabled us to examine both within-person (e.g., *husband alcohol use x husband conflict-with-partner*) and between-person (e.g., *wife alcohol use x husband conflict-with-partner*) interactions to gain insight into possible within- and across-partner dynamics that contribute to alcohol problems and marital satisfaction.

Conflict-with-Partner Models.

Our first hypothesis was partially supported and was consistent with both stress-exacerbation (Cranford, 2004; Windle and Windle, 2015) and stress-buffering (Wills and Shiffman, 1985) models. With regard to the dependent variable of alcohol problems, higher alcohol use within the context of higher partner conflict was associated with more alcohol problems, a finding supportive of a stress-exacerbation effect. In addition, as will be discussed later, this effect was evident only for women. Regarding our first hypothesis and the dependent variable of marital satisfaction, a stress-buffering effect was evident, in that wives' reports of lower levels of conflict with their husbands buffered their heavier alcohol use in relation to husbands' reports of higher levels of marital satisfaction (Figure 3). None of the *alcohol use x conflict-with-partner* interactions were significant for women's marital satisfaction,

suggesting that the combination of alcohol use and conflict was more closely associated with marital satisfaction for men relative to women.

There are a number of plausible explanations for these stress-exacerbation findings. For example, it may be that higher levels of conflict are occurring within the marital dyad because wives are consuming higher levels of alcohol and experiencing more alcohol problems (Halford and Osgarby, 1993; Yoshioka et al., 1992). In that regard, Yoshioka and colleagues discussed the marital conflict that may arise when a spouse engages in drinking control behaviors (e.g., nagging, complaining, threatening) aimed at a heavy-drinking partner. Alternatively, alcohol use may lower inhibitions and foster more aggressive verbal and physical behaviors (Roberts and Leonard, 1998; Testa and Derrick, 2014) that are associated with lower marital satisfaction and more alcohol problems. Finally, it is possible that alcohol use under circumstances of high marital conflict is used to cope with stress and other negative affective states that undermine high quality interpersonal exchanges among marital partners (Cooper et al., 2016; Rodriguez et al., 2014). The direction of these effects cannot be determined by the current cross-sectional study. However, research has indicated that patterns of association between problematic alcohol use and marital conflict are, at least in some instances, bi-directional and represent a positive feedback loop in which conflict leads to more alcohol use and problems and more problematic alcohol use leads to higher levels of marital conflict (Rodriguez et al., 2014).

Support-from-Partner Models.

Our second hypothesis was also partially supported, with findings indicating that higher alcohol use among marital partners within a supportive partner context was protective with regard to fewer alcohol problems and higher marital satisfaction for wives and husbands. For example, we found that alcohol problems were lower for both husbands and wives when husbands reported higher support from their spouse even when wives' alcohol use was at higher levels. Likewise, marital satisfaction was higher for both husbands and wives when wives perceived receiving higher levels of support from their husbands even if partners were drinking at higher levels. Although beyond the scope of the current study, research findings suggest that concordant patterns of alcohol use among dyadic partners and/or the use of alcohol under more favorable circumstances (e.g., drinking together; drinking at home rather than in bars), instead of under less favorable circumstances (e.g., drinking to cope with stress; negative affect regulation; drinking apart), has an adaptive influence on romantic relationships (Homish and Leonard, 2005; Levitt and Cooper, 2010). While we were unable to address the directionality of the relationships found in the current study, our findings provide support for the importance of emotionally-supportive relationships between romantic partners even within the context of higher alcohol use.

Sex Differences.

Our third hypothesis was partially supported and was most evident for the interactions that indicated higher levels of alcohol problems for wives within the context of higher levels of alcohol consumption and higher conflict-with-partner; in contrast, *alcohol use x conflict-with-partner* interactions were not significantly associated with husbands' alcohol problems. For example, wives' reports of higher levels of alcohol use were associated with wives'

reports of more alcohol problems but only if husbands reported higher levels of conflict with their partner (Figure 2). Supported by other research (Levitt and Cooper, 2010; Olenick and Chalmers, 1991), findings from the current study suggest that higher alcohol use in conjunction with higher conflict within romantic dyads is significantly associated with more problematic alcohol use, and that these effects may be more influential for women than men. In this regard, Levitt and Cooper concluded that women, relative to men, are more sensitive to emotional aspects of their romantic relationships, and that they may use alcohol both to cope with emotionally-negative relationship experiences (e.g., low levels of intimacy) and to repair emotionally-negative events and re-establish more positive emotional functioning (e.g., by drinking with their partner). Consistent with these findings was the significant interaction in the current study indicating that higher support from partner, regardless of lower or higher levels of husbands' alcohol use, was associated with wives' higher marital satisfaction. Findings from studies with alcoholic couples have also suggested that female alcoholics are more sensitive to affective aspects of the marriage relative to male alcoholics (Olenick and Chalmers, 1991), and that female alcoholics' use of alcohol has the beneficial consequence of alleviating negative interactions within the marital relationship (Haber and Jacob, 1997). Levitt and colleagues (Levitt, Derrick, and Testa, 2014) have referred to this reason for drinking as relationship-enhancement processes, and their findings indicate that these reasons for drinking (e.g., to increase intimacy, to reduce negative interactions) are more prominent for female's alcohol use than males'.

There are several limitations associated with the findings of this study. First, the sample of dyads was predominantly white and middle-class; thus, generalizability to other populations (e.g., other racial and ethnic groups) awaits further study. Second, our sample consisted of heterosexual marital dyads and, due to limited statistical power, did not include other interpersonal dyads (e.g., same-sex dyads). Third, our measures of interpersonal conflict and support were based on self-report-measures-only rather than being supplemented by data collected via other methods (e.g., behavioral observation methods, daily diary methods). Fourth, the findings were based on a single wave of assessment and hence issues about causality must await stronger, longitudinal research findings. Fifth, "third variable" explanations (e.g., personality attributes of hostility or disinhibition) that account for both alcohol use and interpersonal dimensions (e.g., partner conflict) cannot be excluded as plausible alternative descriptions of the findings.

Despite these limitations, the dyadic research design of this study facilitated insight into the interrelationships between alcohol use, interpersonal functioning (conflict and support), and alcohol problems and marital satisfaction for marital couples in young adulthood. Perhaps a major take-away message from this study is that, in understanding alcohol use among marital dyads, a beneficial perspective is one that recognizes the moderating and (two-person) relational features of alcohol use and interpersonal relationships (partner conflict and partner support) on alcohol problems and marital satisfaction. As noted by others (Fischer and Wiersma, 2012) and supported by our findings, the association between alcohol use and emotional aspects of romantic relationships is complex, with both positive and negative outcomes. Our findings have provided support for both stress-exacerbating and stress-buffering mechanisms that may provide additional insight for clinicians and intervention investigators as targets for clinical marriage-counseling services and

intervention research applications. Longitudinal designs, beyond the final cross-sectional wave of this study, will be beneficial in understanding these mechanisms. A keener insight into the dynamic and dyadic processes of how interactions between emotional components of marital relationships and the use of alcohol may contribute to alcohol problems and marital satisfaction, and the gender specificity of these processes, will hopefully yield happier marriages of longer duration for both marital partners.

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Figure 1.
Schematic Path Model of Hypothesized Relationships between Predictor Variables and Outcomes (W=Wife's Report; H=Husband's Report; QFI=Quantity-Frequency Index)

Figure 2.
Wives' Reports of Alcohol Use x Husbands' Reports of Conflict-with-partner Interaction
Associated with Wives' Reports of Alcohol Problems
*** $p < .001$

Figure 3.

Wives' Reports of Alcohol Use x Wives' Reports of Conflict-with-partner Interaction Associated with Husband's Reports of Marital Satisfaction

*** $p < .001$

Figure 4.

Husbands' Reports of Alcohol Use x Wives' Reports of Support-from-partner Interaction Associated with Wives' Reports of Marital Satisfaction

*** $p < .001$

Table 1.

Correlations, Means, and Standard Deviations for Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Family Income ^I	1.0															
2. Wives: Age	.03	1.0														
3. Husbands: Age	.05	.17 ^c	1.0													
4. Wives: Years of Educ	.31 ^c	.02	.03	1.0												
5. Husbands: Years of Educ	.26 ^c	-.02	-.09 ^a	.34 ^c	1.0											
6. Avg. Years Married	-.04	-.02	.00	-.07	-.02	1.0										
7. Wives: QFI	.04	.02	.09 ^a	.07	-.05	-.09 ^a	1.0									
8. Husbands: QFI	.04	-.05	-.05	-.06	-.01	.03	.20 ^c	1.0								
9. Wives: AP	-.06	.05	.02	-.04	-.08	-.15 ^b	.33 ^c	.34 ^c	1.0							
10. Husbands: AP	.07	.05	-.09	-.01	.01	.05	.35 ^c	.39 ^c	.13 ^b	1.0						
11. Wives: Conflict	-.03	.06	.05	.03	.03	-.01	.09 ^a	.08	.13 ^b	.12 ^a	1.0					
12. Husbands: Conflict	.03	.09 ^a	.05	-.03	.02	.05	.05	.05	.00	.18 ^c	.55 ^c	1.0				
13. Wives: Support	.07	-.09 ^a	-.12 ^b	.16 ^c	.13 ^b	-.05	-.03	-.03	-.02	-.10 ^a	-.50 ^c	-.48 ^c	1.0			
14. Husbands: Support	.05	-.13 ^b	-.13 ^b	.12 ^b	.08	-.06	-.01	.01	.03	-.05	-.34 ^c	-.57 ^c	.70 ^c	1.0		
15. Wives: MS	.12 ^b	-.09	-.10 ^a	.13 ^b	.12 ^b	.01	-.03	-.05	-.24 ^c	-.03	-.43 ^c	-.37 ^c	.43 ^c	.26 ^c	1.0	
16. Husbands: MS	.01	-.14 ^b	-.01	.12 ^b	.05	-.04	-.02	-.04	-.07	-.15 ^b	-.42 ^c	-.67 ^c	.48 ^c	.60 ^c	.40 ^c	1.0
Mean	8.11	32.91	34.61	16.34	15.67	5.32	2.61	2.95	0.69	1.23	20.35	20.43	24.74	24.77	17.33	17.38
SD	1.30	2.83	3.25	2.39	2.64	3.38	0.19	0.34	1.37	1.66	6.41	5.93	3.94	3.81	3.92	3.77

N=483 dyads

^I Income categories ranged from 1=Less than \$6,000 to 10=\$150,000 or more; 8=\$55,000-89,999

QFI=Quantity-Frequency Index; AP=Alcohol Problems; Conflict=Conflict-with-partner; Support=Support-from-partner; MS=Marital Satisfaction

^a p>.05;

$$\begin{matrix} 100 > d \\ p > d \\ ; 10 > d \\ q \end{matrix}$$

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Table 2.

The Association of Alcohol Problems with *Alcohol Use x Conflict-with-partner* and *Alcohol Use x Support-from-partner* Interactions

Wife and Husband Predictors	W-Alc Prbs (Conflict Model)	H-Alc Prbs (Conflict Model)	W-Alc Prbs (Support Model)	H-Alc Pbs (Support Model)
W-Age	.009 ^I	.031	.034	.037
W-Education	-.001	.015	.010	.021
H-Age	.001	-.116**	-.004	-.121***
H-Education	-.024	.035	-.023	.047
Length of Marriage	-.156***	.032	-.150***	.031
Family Income	-.072	.055	-.076	.046
W-Alcohol Use (QFI)	.331***	.355***	.301***	.372***
H-Alcohol Use (QFI)	.328***	.401***	.299***	.408***
Conflict-with-partner				
W-Conflict w/Partner	.080	.128***	---	---
H-Conflict w/Partner	.016	.005	---	---
W-QFI x W-Conflict	.175***	.003	---	---
H-QFI x H-Conflict	-.142**	.032	---	---
W-QFI x H-Conflict	-.193***	-.062	---	---
H-QFI x W-Conflict	-.028	.056	---	---
Support-from-partner				
W-Support-from-partner	---	---	-.015	-.115**
H-Support-from-partner	---	---	-.022	.047
W-QFI x W-Support	---	---	-.018	-.030
H-QFI x H-Support	---	---	.062	.013
W-QFI x H-Support	---	---	.096*	.093*
H-QFI x W-Support	---	---	.037	-.092
R ² Value	.274***	.356***	.210***	.353***

N=483 dyads

W=Wife's Report; H=Husband's Report; QFI=Quantity-Frequency Index; Alc Prbs=Alcohol Problems; Conflict=Conflict-with-partner; Support=Support-from-partner

^I Standardized coefficients are presented.

* p<.05;

** p<.01;

*** p<.001

Table 3.

The Association of Marital Satisfaction with *Alcohol Use x Conflict-with-partner* and *Alcohol Use x Support-from-partner* Interactions

Wife (W) and Husband (H) Predictors	W-MS (Conflict Model)	H-MS (Conflict Model)	W-MS (Support Model)	H-MS (Support Model)
W-Age	-.011	-.073 *	-.015	-.078
W-Education	.043	.098 *	-.013	.027
H-Age	-.076 *	.022	-.055	.061
H-Education	.044	.017	.022	-.012
Length of Marriage	.023	-.020	.047	-.004
Family Income	.075 *	-.044	.061	-.048
W-Alcohol Use (QFI)	.024	-.005	.025	.001
H-Alcohol Use (QFI)	-.049	.010	-.054	-.035
Conflict-with-partner				
W-Conflict w/Partner	-.431 ***	-.415 ***	---	---
H-Conflict w/Partner	-.279 ***	-.285 ***	---	---
W-QFI x W-Conflict	.001	-.118 ***	---	---
H-QFI x H-Conflict	.063	-.061	---	---
W-QFI x H-Conflict	-.063	.058	---	---
H-QFI x W-Conflict	-.058	.081	---	---
Support-from-partner				
W-Support-from-partner	---	---	.332 ***	.359 ***
H-Support-from-partner	---	---	.249 ***	.364 ***
W-QFI x W-Support	---	---	.012	.082 *
H-QFI x H-Support	---	---	-.079	.064
W-QFI x H-Support	---	---	.087	-.071
H-QFI x W-Support	---	---	.127 *	-.058
R ² Value	.412 ***	.406 ***	.283 ***	.371 ***

N=483 dyads

W=Wife's Report; H=Husband's Report; QFI=Quantity-Frequency Index; MS=Marital Support; Conflict=Conflict-with-partner; Support=Support-from-partner

¹ Standardized coefficients are presented.

*
p<.05;

**
p<.01;

p<.001

Table 4.

Tests for Equality Constraints of Parameter Estimates for Significant Moderator (Interaction) Effects across Sex Groups

Interactions	Wives' Parameter Estimates	Husbands' Parameter Estimates	χ^2 Statistics
Alcohol problems:			
1. W-QFI x W-Conflict	.175 ***	.003	$\chi^2(1)=4.54, p=.033$
2. H-QFI x H-Conflict	-.142 **	.032	$\chi^2(1)=7.04, p=.008$
3. W-QFI x H-Conflict	-.193 ***	-.062	$\chi^2(1)=6.05, p=.014$
Marital satisfaction:			
4. W-QFI x W-Conflict	.001	-.118 ***	$\chi^2(1)=5.57, p=.018$
5. W-QFI x W-Support	.012	.082 *	$\chi^2(1)=4.07, p=.041$
6. H-QFI x W-Support	.127 *	-.058	$\chi^2(1)=7.57, p=.006$

N=483 dyads

W=Wife's Report; H=Husband's Report; QFI=Quantity-Frequency Index; Conflict=Conflict-with-partner; Support=Support-from-partner

¹ Standardized coefficients are presented.

*
p<.05;

**
p<.01;

p<.001