



Published in final edited form as:

J Drug Issues. 2005 March ; 35(2): 409–429.

Changes in Marijuana Use Over the Transition Into Marriage

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Abstract

Reductions in substance use tend to coincide with marriage, as both may occur during emerging adulthood. During the transition to marriage, it is possible that one's spouse may be the influence that causes the reduction in substance use. Data on participants (N = 471 couples) for this report are taken from a longitudinal study of early marriage. The objective of the current analysis is to determine if having a spouse who uses marijuana is associated with a greater likelihood of one's own use. Additionally, we are interested in spousal influence and cessation. The findings support spousal influence. Husbands are more likely to start using marijuana if their wives use marijuana, but the reverse is not true. Husbands also are more likely to stop using if their spouses do not use. During the transition into marriage, the drug use of one spouse does affect the other. However, this influence appears to be unidirectional, with wives influencing their husbands more often.

Introduction

Emerging adulthood represents an important and distinct developmental period with unique opportunities and challenges (Arnett, 2000). It has been argued that this developmental period is historically unique, and that it has occurred, in part, because of social changes that have delayed entry into traditional adult roles (see also Arnett, 2004). For example, the age of first marriage has risen from approximately 22 years (21 for women, 23 for men) in the 1970s to 27 years (26 for women, 28 for men). In terms of considering changes in adult roles, in the early 1970s, approximately 18% of first births for women occurred outside of marriage (Bachu, 1998). By the early 1990s, 40% of first births occurred outside of marriage. In addition, the mean age of mothers at the birth of their first child increased from 21 years in 1970 to 25 years in 2000 (Mathews & Hamilton, 2002). The period of emerging adulthood is roughly defined as the period from "...the late teens through the twenties, with a focus on ages 18–25" (Arnett, 2000, page 469). In addition to defining this period in terms of years, it can also be described as a developmental period that is marked by increased independence from one's family of origin and explorations of one's own standards and values. However, it is also a period that involves continued exploration and development of intimate relationships. At some point during emerging adulthood, many individuals will marry, and while this does not define the end of this period, this transition to marriage nevertheless has important implications for further development.

Marriage carries with it a variety of tasks that can fundamentally alter the individual's view of him- or herself, as well as how the broader social network behaves toward the individual and the couple. At the individual level, there is often a marked shift away from more individualistic values and toward more interdependent and socially positive values consistent with the adoption of the new role of spouse. There are also major tasks that involve the establishment of a mutually satisfactory relationship and the reestablishment or redefinition of ties, both as individuals and as a couple, with each member's extended family and peer network (Boss, 1983; McGoldrick & Carter, 1982). The accomplishment of these tasks in the early years of

marriage arises within the context of a dynamic interplay between the two members of the couple in which differences with respect to life goals, values, and expectations must be reconciled. To a large degree, these shifts and accommodations may be integral to the emerging adult period and may be necessary for the emerging adult to seriously consider marriage. However, it is also clear that the accomplishment of these transitional tasks continues into the early years of marriage.

Throughout the period of emerging adulthood, substance use appears to first increase and subsequently, to decrease. Alcohol use tends to peak during the early 20s among men and women and then, for most, it gradually declines (Muthen & Muthen, 2000). In a longitudinal study of drug use from adolescence into adulthood, the prevalence of cigarette smoking peaked in the late teens and then decreased as the participants entered their late 20s (Chen & Kandel, 1995). Although the prevalence of marijuana use peaked slightly later (around age 19), a similar decline in use was found when the participants entered their mid 20s. These trends were similar in both men and women.

Some have suggested that this decline in substance use represents a maturation process (e.g., Labouvie, 1996). Through this process, individuals may gradually come to feel more responsible for their own behaviors, find that substance use interferes with the pursuit of their goals (Labouvie, 1996), or find that it prevents them from moving into adult roles (Brook, Richter, Whiteman, & Cohen, 1999). In a similar vein, Bachman et al. (2002) have argued that substance use increases as one's freedoms increase and decreases as new responsibilities are accepted. This appears to be accurate with respect to the increased responsibilities that are integral to the transition to marriage. Kandel and Raveis (1989) examined marijuana use and social roles of adulthood and found that the assumption of new family roles was associated with cessation of marijuana use for men and women. Similarly, Miller-Tutzauer, Leonard, and Windle, (1991) reported that alcohol use declined over the marriage transition for both men and women. Bachman and colleagues (1997) replicated these findings and found that the preparation for this new adult role (i.e., engagement) was associated with some decline in substance use. Others have also found that marriage increases the rate of stopping marijuana use in both men and women, and among women, marriage also decreases the likelihood of resumption or initiation of marijuana use (Yamaguchi, 1990). Brook and colleagues found that marriage, but not other adult roles, was associated with a decreased likelihood of marijuana use. Using data from the Monitoring the Future study, Bachman and associates (1992) found that marriage, independent of other post-high school experiences (e.g., employment status), was associated with decreased marijuana use. Taken together, these findings suggest a unique influence of marriage on substance use.

While the transition to marriage may have direct effects on substance use, it may also be that this new role introduces or amplifies new sources of influence. Individuals in close relationships become interdependent, such that the activities and behaviors of one member will affect those of the partner (Blumstein & Kollock, 1988). In this sense, one partner's substance use may become an important element in the substance use of the other partner. Leonard and Das Eiden (1999) found that a husband's drinking influences his wife's drinking during the early years of marriage. This influence has also been found with other substance use (e.g., cigarette smoking) (Severson, Andrews, Lichtenstein, Wall, & Zoref, 1995). Others, however, have not found spousal influence involved in substance use. Yamaguchi and Kandel (1997) investigated spousal influences on marijuana use over a five and a half year period. Although they hypothesized that spouses would influence their partners' use of marijuana over time, the results did not support this notion.

The early years of marriage may be a particularly important time to consider the effects of one spouse on the other. Cast and colleagues (1999) suggest that during the early years of a marriage, a spouse "...may be seen as one who can provide insight and guidance into who one is and who one should become" (page 69). Further, they suggest that new spouses may affect behaviors of their significant others because of the amount of time young couples spend together and because of personal communication between the couple. Blumstein (1991) proposes that intimate partners are dependent on one another and that "...by being intimate, each partner grants the other enormous authority to shape the collective reality of the pair" (page 312).

When considering spousal influence and substance use, directionality of this influence is not clear. That is, do spouses mutually influence their partners' behaviors, or is the influence unidirectional? Using national two wave panel data, Umberson (1992) considered gender effects in the relation between social control and health behaviors. The health behaviors of interest included general health questions (amount of physical activity, number of hours of sleep, etc.) as well as questions about substance use (number of drinks, number of cigarettes, etc.). Women, compared to men, were more likely to attempt to control the health of their partners. Similarly, Franks and colleagues (2002) found a unidirectional influence. In their study of smoking cessation among married couples, they found that "wives' lifestyle choices regarding smoking behavior may have a greater impact on men's lifestyle changes than the reverse" (page 350). In contrast, others have found that it is the husband's behaviors that influence his wife. For example, in two separate longitudinal studies of alcohol use in newlyweds (Leonard & Das Eiden, 1999; Leonard & Mudar, 2003), support was found for husbands influencing their wives' drinking over the transition to marriage, but not the reverse. However, the directionality of this influence pattern later changed. Although husbands' premarital drinking was predictive of wives' drinking at the couple's first anniversary, wives' drinking at the first anniversary predicted husbands' drinking at the second anniversary (Leonard & Mudar, 2004). The fact that close personal relationships are dynamic (Blumstein & Kollock, 1988) may explain shifts in partner influence over time.

Although previous studies have found that the prevalence of marijuana and other drug use decreases with age, it is not clear what factors influence changes in marijuana use. Much of what we know about marijuana use has focused on the time of greatest risk for starting marijuana use (by 20 years old) (Kandel & Logan, 1984). The influence from the social network may change from peers to a marital partner as individuals age; therefore, it is important to consider if initiation or resumption of marijuana use in adults is influenced by their marital partners in a fashion similar to peer influence during adolescence. Further, few studies have examined factors related to the cessation of marijuana use (Chen & Kandel, 1998). There is some evidence in the substance use literature that suggests one spouse may affect the other's alcohol (Leonard & Das Eiden, 1999) or tobacco use (Kahn, Certain, & Whitaker, 2002), but far less is available when considering spousal influence on marijuana use. Some that have considered marijuana use among marital couples have considered couples who have been married for several years (e.g., Yamaguchi & Kandel, 1997). Couples who have been married for a number of years are more likely to be older, and therefore, may have already stopped using marijuana or decreased the frequency of drug use. Influence patterns for these couples may be different compared to couples who are just beginning their marriage. Additionally, it is not clear if spousal influence and marijuana use would be a mutual influence or, if the influence is unidirectional. Some past work that has examined marijuana and partner influence has not considered the possibility of this directionality of the influence (e.g., Chen & Kandel, 1998). The objective of this work was to investigate changes in marijuana use during the transition into marriage in a community sample. In particular, we were interested in determining if one spouse's use of marijuana was associated with the partner's use of

marijuana. Further, we wanted to determine if individuals using marijuana were more likely to stop using if their spouses' were nonusers. We considered a husband's influence on his wife separately from a wife's influence on her husband.

Methods

Participants

Participants for this report were involved in a longitudinal study of early marriage and alcohol involvement. All participants were at least 18 years old, spoke English, and were literate. Couples were ineligible for the study if they had been previously married. These analyses are based on 471 couples with complete marijuana data at each wave. At the initial assessment, the average age of the men [mean (SD)] was 28.9 (6.1) years and the average of the women was 26.9 (5.6) years. The majority of the men and women in the sample were European American (husbands: 64%; wives: 66%). About one third of the sample was African American (husbands: 29%; wives: 28%). There were very small percentages of Hispanic, Asian, and Native American participants. A large proportion of husbands and wives had at least some college education (husbands: 72%; wives: 67%). About 14% of the husbands were still in school, and almost 19% of the wives were still in school at the time of marriage. The majority of the husbands were employed full time (82.2%), and about 60% of the wives were employed full time. At the time of marriage, 34% of the husbands and 38% of the wives were parents. About 69% of the couples were living together prior to marriage, with the cohabiters living together an average of 21 months (SD: 33.8)

Procedures

After applying for a marriage license, couples were recruited for a 5 to 10 minute paid (\$10) interview. The interview covered demographic factors (e.g., race, education, age), family and relationship factors (e.g., number of children, length of engagement), and substance use questions (e.g., marijuana use, other illicit drug use, current or past smoker, average alcohol consumption, times intoxicated in the past year). For interested individuals who did not have time to complete this interview, a telephone interview was conducted later that day or the next day (N = 62). Less than 8% of individuals approached declined to participate. We interviewed 970 eligible couples.

Complete details of the recruitment process can be found elsewhere (Leonard & Mudar, 2000; Leonard & Mudar, 2003), but briefly, couples that agreed to participate were given identical questionnaires to complete at home and asked them to return in separate postage paid envelopes (wave 1 assessment). Participants were asked not to discuss their responses with their spouses. Each spouse received \$40 for participation. Only 7% of eligible couples refused to participate. Those who agreed to participate, compared to those who did not, were more likely to have lower incomes ($p < .01$), and the women were more likely to have children ($p < .01$). No other differences were identified. Of the 887 eligible couples who agreed to participate (13 of the original 900 did not marry), data were collected from both spouses for 634 couples (71.4%). Couples who returned the questionnaires were more likely to be living together compared to couples who did not return the questionnaires (70% vs. 62%; $p < .05$). No other differences existed between the couples who responded compared to those who did not.

At the couples' first and second anniversaries (waves 2 and 3), they were mailed questionnaires similar to those they received at the first assessment. As with the first assessment, they were asked to complete the forms and return them in the postage paid envelopes. Of the 634 complete wave 1 couples, 471 provided data on marijuana use at all three assessments (74.3%). These

471 participants are the basis for this report. Husbands and wives who provided data on the marijuana use at all three waves were less likely to be parents prior to this marriage, were more likely to have at least some college education, and were more likely to be European American ($p < .05$) compared to husbands and wives who did not provide data at all three waves. Participants who provided data on marijuana use at all three time points did not differ on any other sociodemographic variables compared to those participants who did not provide data for all three waves. Additionally, husbands and wives who provided information on marijuana use at all waves, compared to those who did not, were less likely to report past year marijuana use at wave 1.

Measures

Demographic Factors—Each spouse reported their age, race/ethnicity, highest level of education obtained, employment status, number of children, and the number of months cohabitating.

Marijuana Use—At each assessment, each spouse was asked to report how often they used marijuana in the past year. Responses were recorded on six-point scale that ranged from “not at all” to “once a week or more.” For this report, the responses were recoded into “no use” or “any use” in the past year. Cessation was defined as individuals who reported “any use” and then reported “no use” at the next assessment. Initiators were individuals who reported “no use” and then reported “any use” at the next assessment. For this report, no distinction is made between a person who started using marijuana for the first time and individuals who had previously used marijuana, stopped for a period of time (e.g., during pregnancy), and then resumed use. Hence, initiation of marijuana use includes both of these possibilities.

Analyses—For these analyses, the sample was based on couples for whom information on their marijuana use was available for all waves ($N = 471$). Descriptive statistics were utilized to characterize the couples. Marijuana use among couples was examined with Chi-square analyses. Spousal influence was first assessed in bivariate models using logistic regression testing the relation between a partner’s marijuana use and the spouse’s initiation of marijuana use (no/yes) or cessation of use (no/yes). Multivariate models were used to control for demographic factors, parenting status prior to marriage, and length of cohabitation prior to marriage. In particular, stepwise logistic regression models were used to assess the influence of one spouse’s marijuana use on his/her partner’s initiation or cessation of use. In total, four logistic models were considered for a husband’s influence on his wife, and four models were considered for a wife’s influence on her husband (initiation of marijuana use at wave 2 predicted by wave 1, initiation of marijuana use at wave 3 predicted by wave 2, cessation of marijuana use at wave 2 predicted by wave 1, cessation of use at wave 3 predicted by wave 2). For the initiation models, spouse’s use was entered first followed by the covariates. The covariates were entered as a second block to determine if their inclusion eliminated the effect of the spouse’s drug use. For the cessation models, the same procedure was followed. Odds ratios and 95% confidence intervals were calculated.

Before selecting the final models, regression model assumptions were checked by examining the residuals. No violations were detected. Outliers and possible influential points were examined. The results did not change with the removal of these cases. For the logistic models, the overall fit of the model was assessed using Hosmer and Lemeshow’s (2000) goodness of fit test. Only variables that improved the log-likelihood ratio were included in the final models.

Results

Prevalence of Marijuana Use

At the first assessment (wave 1), about one fifth (19.7%) of the women reported using marijuana in the past year, and about a quarter (25.5%) of the men reported any use. The prevalence of marijuana use decreased for both men and women across waves 2 and 3. The prevalence of use for women was 14.2% for wave 2 and 12.5% for wave 3. Among men, 21.0% reported any use at wave 2 and 18.7% reported any use at the wave 3 assessment.

There was a strong association between husband and wife marijuana use over the three waves. Among men who reported that they used marijuana at the wave 1 assessment, about half of their wives also reported use (Table 1). In contrast, among men who did not use marijuana at wave 1, only about 10% of their wives reported any use at wave 1. For waves 2 and 3, the concordance for use was slightly less; of the husbands who used marijuana at wave 2, 41.4% of their wives also used and for wave 3 husbands who used marijuana, 36.4% of their spouses also used marijuana.

At waves 2 and 3, more men and women stopped using marijuana compared to those who started using. Almost half of the women who were using marijuana at wave 1 reported no use at wave 2 (44.1%, $n = 41$), and about one third of women (35.8%, $n = 24$) who used at wave 2 reported no use at wave 3. In contrast, only 4% of nonuser women started using marijuana at wave 2 ($n = 15$), and 4% of nonusers at wave 2 ($n = 16$) started using marijuana at wave 3. The findings were comparable among men. About one third of the men using marijuana at wave 1 or 2 reported no use at the next assessment (35.0%, $n = 42$, at wave 2 and 31.3%, $n = 31$ at wave 3). Among men who were not using marijuana at the previous wave, 6.0% started using marijuana at wave 2 ($n = 21$), and 5.4% started using at wave 3 ($n = 20$).

Spousal Influence on the Initiation of Marijuana Use

The bivariate relation between a spouse's use of marijuana and his/her partner's initiation of marijuana use at a later point was first examined. From wave 1 to wave 2, there was some evidence to suggest that husbands did influence their wife's marijuana use. Women whose husbands used marijuana at wave 1 were slightly more likely to start using marijuana at wave 2 than were women whose husbands did not use marijuana (Odds Ratio [OR] = 2.7, 95% Confidence Interval [CI]: .9–8.3, $p = .07$). However, there was no evidence to support a husband's influence on his wife's marijuana use from wave 2 to wave 3. Among men, there was evidence that marijuana use by their wives was predictive of their own initiation. Husbands whose wives used marijuana at wave 1 were more likely to start using at wave 2 compared to men whose wives did not use marijuana (OR = 3.2, 95% CI: 1.1–9.5, $p < .05$). Influence from wives to husbands remained significant into wave 3. Husbands whose wives used marijuana at wave 2 were also more likely to start using marijuana at wave 3 than husbands whose wives were nonusers (OR = 3.8, 95% CI: 1.2–12.1, $p < .05$).

In the multivariate models controlling for demographic variables, similar findings were evident (Table 2). Among women who started using marijuana at waves 2 or 3, there was no evidence for spousal influence. That is, having a husband who used marijuana at the earlier assessments did not increase the likelihood that the woman would start using marijuana. Women who were parents prior to this current marriage, however, were more likely to start using marijuana at wave 2 (OR = 4.5, 95% CI: 1.4–14.5, $p < .05$) and, similarly, women who did not use at wave 2 were also more likely to start using marijuana at wave 3 if they had a child prior to the current marriage (OR 3.2, 95% CI: 1.3–8.9, $p < .05$).

The use of marijuana by wives did, however, play a significant role in their husbands' initiation of marijuana use at both time points in the multivariate models. Husbands were significantly more likely to start using marijuana at wave 2 if their wives used marijuana at wave 1 (OR = 3.2, 95% CI: 1.1–9.9, $p < .05$). Husbands who were not European American were more likely to start using marijuana at wave 2 (OR = 2.8, 95% CI: 1.1–7.4, $p < .05$). Additionally, those with less education (high school or less) were also more likely to start using marijuana at wave 2 (OR = 4.1, 95% CI: 1.6–10.6, $p < .01$). The influence of wives' marijuana use on their husbands' use was also found for wave 3. Husbands whose wives used marijuana at wave 2, compared to those whose wives did not use marijuana at wave 2, were also more likely to start using marijuana at wave 3 (OR = 3.8, 95% CI: 1.1–12.7, $p < .05$). Men who were unemployed at wave 2 were also more likely to use marijuana at wave 3 compared to their employed counterparts (OR: 4.5, 95% CI: 1.6–12.7, $p < .01$).

Spousal Influence on Cessation of Marijuana Use

Based on the bivariate analyses, there was support for the relation between spousal influence and the cessation of marijuana use. Women were more likely to stop using marijuana at wave 2 if their spouses were not using marijuana at the first assessment (OR = 4.8, 95% CI: 1.9–11.8, $p < .01$). However, women were not more likely to stop using marijuana later in their marriages (wave 3), regardless of their husbands' marijuana use. Among the men, significant spousal influence was found for both wave 2 and wave 3. At wave 2, men were more likely to stop using marijuana if their spouses did not use marijuana at wave 1 (OR = 2.3, 95% CI: 1.1–5.1, $p < .05$). This was also true for wave 3 cessation. Husbands whose spouses were not using marijuana at wave 2 were more likely to stop using marijuana at wave 3 than were husbands whose wives were using (OR = 2.7, 95% CI: 1.1–6.9, $p < .05$).

Controlling for demographic factors, similar findings emerged. Influence from husbands was evident early in the relationships for wives' cessation, but not later. Women were more likely to stop using marijuana at wave 2 if their spouse did not use marijuana at wave 1 (OR = 4.8, 95% CI: 1.9–11.8, $p < .01$). However, a husband's marijuana use did not affect his wife's marijuana use at wave 3. None of the demographic variables were significantly associated with wife's cessation at either time point.

As in the analyses of initiation, wives' behavior was a significant predictor of husbands' cessation of marijuana use at each time point. Husbands whose wives did not use marijuana at wave 1 were more likely to stop using marijuana at wave 2 (OR = 2.3, 95% CI: 1.1–5.1, $p < .05$). At wave 3, husbands whose wives did not use marijuana at wave 2 were more likely to stop using marijuana compared to men whose wives did use marijuana (OR = 2.9, 95% CI: 1.1–7.8, $p < .05$). None of the demographic variables were significant in either of the models for husband's cessation.

Discussion

It has been known for some time that substance use tends to decline as individuals progress through their 20s. Evidence suggests that while some of this decline may represent maturational processes, much of this decline reflects transitions in life contexts that are associated with increased responsibilities (Bachman et al., 1997). Marriage clearly represents such a context. However, marriage not only reflects a context of increased responsibilities, it entails an expectation of interdependence between husbands and wives and raises the possibility that not only does substance use decline over marriage, but that husbands and wives may alter their substance use in response to their spouses' use. The results of the present study were generally consistent with this expectation, but suggested important gender differences in influence as well.

In this community sample of young adults, we found that the prevalence of marijuana use decreased over the transition to marriage. This was true among both men and women. Among men, the prevalence of use decreased from about 25% at the first wave to 19% at wave 3 and among women, the prevalence decreased over the same period from 20% to about 14%. Although some individuals initiated use (or returned to using) over these two years, the rates of cessation were dramatically higher, resulting in an overall decrease in use. Inasmuch as we did not compare the newlywed participants in our study to individuals who remained single, we cannot definitively attribute this decrease to the marriage. There are other important contextual transitions that occur for these emerging adults than can result in decreased substance use. Nonetheless, the observed reductions are consistent with other data suggesting the importance of marriage as a transition event with respect to substance use (Bachman et al., 1997).

In addition to observing this decline in marijuana use, we also found that individuals who used marijuana were commonly married to others who were also using marijuana. For instance, of the husbands who used marijuana at wave 1, just under half had wives who also used marijuana. Similarity of drug use among married couples has been found in other work (Mudar, Leonard, & Soltysinski, 2001; Yamaguchi & Kandel, 1993). Consistent with the declines in use, there were declines in the concordance of use and increases in the concordance of nonuse. Overall, however, the numbers of discordant couples did not change dramatically. Based on the entire sample, 20% of couples at wave 1, 18% at wave 2, and 18% at wave 3 were discordant for use. Hence, while most couples are concordant nonusers, there are a substantial number of couples that are discordant. Inasmuch as there is evidence that discordant substance use in couples is associated with lower levels of marital satisfaction (e.g., Mudar, Leonard, & Soltysinski, 2001), the relative lack of change in prevalence of discordant use despite overall reductions in use is of some concern.

As would be expected from the research on peer influence and marijuana initiation (Musher-Eizenman, Holub, & Arnett, 2003; Prinstein, Boergers, & Spirito, 2001), there was evidence in this sample that having a partner who uses marijuana increases the likelihood of one's own use. Others have also found that individuals who interact with others who use drugs are at risk for continued drug involvement through the life cycle (Chen & Kandel, 1998). However, in the multivariate models we found a unidirectional influence; that is, wives influenced their husbands' initiation of marijuana use, but there was little evidence of the reverse. Husbands whose wives used marijuana at either of the first two assessments were more likely to start using marijuana at the next assessment. Husbands, however, did not play a significant role in their wives' initiation of marijuana use. Others have found a relationship between partner's use and one's own use of substances. Kandel (1984) explored the relation between a spouse's marijuana use and his/her partner's frequency of past year marijuana use and found partner's use to be one of the strongest predictors of marijuana use. In fact, among women, having a partner who used marijuana was the strongest predictor of past year marijuana use. However, Kandel considered the impact of a spouse's use of marijuana and the frequency of use by the partner, but did not consider spousal influence and the partner's initiation of use (or return to use). Despite the fact that the prevalence of use was higher for men compared to women, our results suggest that spousal influence for the initiation of marijuana use in the early years of marriage is unidirectional, from wife to husband.

The results also demonstrated strong support for one spouse's marijuana use influencing the other's cessation of use. Consistent with past work (e.g., Chen & Kandel, 1998), more women than men stopped using marijuana at both waves 2 and 3. However, spousal influence did not appear to explain this finding. Although spousal influence was found in both the husband and wife models, spousal influence was more evident in the models predicting husband's cessation.

At both assessments, the men were more likely to stop using marijuana if their spouses did not use. Among women, support for partner influence on their cessation was found earlier in the relationship (wave 1 to wave 2), but not later. Others have also found that individuals were more likely to stop using marijuana if their spouse was not using marijuana (Chen & Kandel, 1998). However, their results did not consider wife's influence on her husband and the reverse, rather, they only reported on overall cessation of use.

In the initiation and cessation models, support for spousal influence was evident, but the influence process did not affect women and men equally. The reason for this gender difference is not clear. Few studies have considered marijuana use and partner influences, and even fewer have considered whether the influence is different for men compared to women. Research on peer influence in the adolescent literature has suggested differential peer influences based on gender. For example, studies on adolescent smoking have found that peer influence is a stronger predictor of cigarette use for females compared to males (Waldron, Lye, & Brandon, 1991). In the adult literature, there is also some evidence of gender differences in studies that considered spousal influence and substance use. In a study of smoking cessation, Westmaas and colleagues (2002) examined the influence of a spouse on smoking cessation. Partner influence was associated with larger reductions in men's smoking over time. However, this was not true among women smokers. Others have also found an influence of women on their husbands but not the converse (Franks et al., 2002; Umberson, 1992).

One potential explanation of the differential gender influence in adolescence versus adulthood is that the transition to marriage alters the relationship dynamics in couples, providing more influence to women after marriage than before marriage. The current study found evidence that both husbands and wives influenced each other in terms of cessation over the transition to marriage. However, from the first to second anniversaries, husbands did not exert any influence on their partner's cessation. Similarly, in our other research focused on alcohol use, we found that the husbands' alcohol use influences wives' use over the transition to marriage (Leonard & Das Eiden, 1999; Leonard & Mudar, 2003). However, there was no longitudinal influence from husband to wife in the second year.

There are several potential explanations for the apparent shift in influence patterns after marriage. Ruvulo and Veroff (1997) have found that the discrepancy between a wife's ratings of the ideal spouse and her husband was predictive of change in marital well being, but that the discrepancy between a husband's ratings of the ideal wife and his wife was not longitudinally predictive of marital well being. Young and Veroff (as reported in Orbach and Veroff, 2002) found that "over time, husbands' perception of self became more like what their wives perceived them to be" (page 560). In addition, they reported that "when marital happiness decreased over time, there was a growing dissimilarity between the perceptions of self and husband" (page 560). This raises the possibility that after marriage, wives press for changes in their husbands' behavior, and that husbands, in the interests of maintaining harmony and avoiding conflict may change in response to their wives' expectations. While there is no direct evidence that this process does not occur prior to marriage, such presses to change before marriage may threaten the man's sense of autonomy and jeopardize the continuation of the relationship. In a similar vein, Holmila (1988) suggests that wives' roles after marriage involve more "caring behaviors" and that these may be seen in wives' attempts to control post-marital alcohol use.

Another explanation of the differential gender influence focuses on patterns of socializing before and after marriage. There is some evidence suggesting that as romantic relationships develop throughout adolescence, there is a decline in same gender friendships, particularly among females (Roth & Parker, 2001; Zimmer-Gembeck, 1999). Kalmijn (2003) found that

among adults, both dating men and women had fewer contacts with friends than did single men and women who were not involved in dating relationships, but that dating women actually reported fewer friends than single, nondating women. This was not observed among men. In contrast, there is evidence that after marriage, the more dramatic change is seen on the part of men. Kalmijn (2003) found that men who reported living with a partner had fewer contacts with friends and more friends shared with their partners than men who reported dating. These relationships were not observed among the women. Cohen (1992) has also described this shift around marriage from single male friends to friends based on couples, and Wellman (1992) suggests that this new couples-based social network forms around the wife's friendships. Hence, the shifting influence may to some degree reflect differential socializing patterns, with patterns before marriage more influenced by husbands, and patterns after marriage more influenced by wives. Consequently, availability, opportunities, and norms regarding marijuana use that are present within the social network may impact on the members of the couple.

It is worth considering the somewhat different pattern of spousal influence that we observed for marijuana use in the current study in comparison to the pattern observed for heavy alcohol use (Leonard & Mudar, 2004). For both alcohol and marijuana, wives influenced husbands' use from the first to the second anniversary. However, the primary difference for alcohol and marijuana was that wives influenced husbands' marijuana use over the transition to marriage, while wives did not influence husbands' alcohol use over the transition to marriage. One possible explanation for this difference is that marijuana use may be viewed as more antinormative, and the wives seek to exert an influence earlier in the relationship. While heavy drinking may also be antinormative, the line between normative drinking and heavy drinking is less clear, and the press to influence husbands may be delayed. This interpretation suggests that wives may tend to provide the limits for acceptable behavior in the relationship, with the timing of this influence dependent upon developmental considerations.

Although evidence for spousal influence on the cessation of marijuana use was found, other factors may also be responsible for the general decline in the prevalence of marijuana use. As individuals transition into marriage, it is also possible that the decline in use was due to psychosocial maturation (Kandel & Logan, 1984). Additionally, drug use may be reduced as people age because individuals tend to be more likely to follow societal norms (Helson, Kwan, John, & Jones, 2002), be less likely to engage in risky behaviors (Maggs, Frome, Eccles, & Barber, 1997), feel a greater sense of family obligations (Fuligni & Pedersen, 2002), or be preparing to take on other roles (e.g., parenting, etc.).

Several limitations of this report need to be considered. This report focused on individuals who provided complete data for all three assessments. Participants who were lost to follow-up tended to be younger, of lower socioeconomic status, and African American. We relied on self-report measures of drug use. However, Harrison and colleagues (1993) examined self-reported marijuana and cocaine use from two national surveys and found that the majority of individuals provided accurate information about their drug use. We did not differentiate those who returned to marijuana use from those who initiated use for the first time. It is unlikely, however, that first time initiators represented a large proportion because individuals who have not used marijuana by the age of 20 are unlikely to start using marijuana (Kandel & Logan, 1984). Our focus was to consider how spouses influence each other's drug use so we cannot generalize our findings to other young adult drug use. Young adults who are using drugs more regularly may be more likely to delay marriage or have their marriages end earlier (Kaestner, 1997), and thus, have their drug use influenced by other factors.

Despite these limitations, the influence of one's spouse was identified as an important factor in drug use during the transition to marriage. Spousal influence was important in not only

identifying individuals who stopped using marijuana, but also for those who started using marijuana. However, in both cessation and initiation, wives appear to affect their husbands' use more often than the converse. Future work will need to identify what factors are responsible for this influence. Additionally, because relationships are dynamic, influence patterns may be subject to change as the duration of the marriage increases, and other life changes occur.

Acknowledgements

The research for this manuscript was supported by grant R37-AA09922 from the National Institute on Alcohol Abuse and Alcoholism awarded to Kenneth E. Leonard

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Table 1
 Marijuana Use Among Couples With Data for all Assessments (N = 471 Couples)

Husband uses marijuana		Wife uses marijuana, Time 1	
		Yes (N = 93)	No (N = 378)
Time 1	Yes (N = 120)	49.2%	50.8%
	No (N = 351)	9.7%	90.3%
Husband uses marijuana		Wife uses marijuana, Time 2	
		Yes (N = 67)	No (N = 404)
Time 2	Yes (N = 99)	41.4%	58.6%
	No (N = 372)	7.0%	93.0%
Husband uses marijuana		Wife uses marijuana, Time 3	
		Yes (N = 59)	No (N = 412)
Time 3	Yes (N = 88)	36.4%	63.6%
	No (N = 383)	7.0%	93.0%

Note: For each time point, $\chi^2_1, p < .001$

Table 2

Partner Influence and Initiation/Cessation of Marijuana Use

Outcome	Predictors	OR	Wave 1 to Wave 2 95% CI	OR	Wave 2 to Wave 3 95% CI
Wife initiates marijuana use	Husband uses marijuana	NS*		NS*	
	Wife a parent prior to this marriage	4.5	1.4–14.5	3.2*	1.3–8.9
Husband initiates marijuana use	Wife uses marijuana	3.2*	1.1–9.8	3.8*	1.1–12.7
	Husband's race	2.8**	1.1–7.4	NS	
	Husband's education (less than high school)	4.1**	1.6–10.6	NS**	
	Husband not working	NS		4.5	1.6–12.7
Wife stops marijuana use	Husband does not use marijuana	4.8**	1.9–11.8	NS	
Husband stops marijuana use	Wife does not use marijuana	2.3*	1.1–5.1	2.9*	1.1–7.8

Notes: OR: Odds Ratio; CI: Confidence Interval; Race coded 0 = White, 1 = Nonwhite. Results are from the multivariate models. Only significant demographic control variables are included in the above table.

** p<.001;

** p<.01;

* <.05

