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Associations between Marijuana Use During Emerging Adulthood and Aspects of the Significant Other Relationship in Young Adulthood

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Abstract

A prospective design was used to examine the association of marijuana use during the transition from late adolescence to early adulthood with reported relationship quality with significant other in the mid- to late twenties. The community-based sample consisted of 534 young adults (mean age = 27) from upstate New York. The participants were interviewed at four points in time at mean ages 14, 16, 22, and 27 years. Marijuana use during the transition from late adolescence to early adulthood was associated with less relationship cohesion and harmony, and with more relationship conflict with control on variables reflecting the participants' early interpersonal adjustment and the quality of the relationships with their parents. Findings suggest that marijuana use during emerging adulthood predicts diminished relationship quality with a partner in the mid- to late twenties.

Keywords

Marijuana use; emerging adulthood; significant other relationship quality; parent relationship

While moderate and experimental use of marijuana in adolescence is often seen as a benign developmental phenomenon (e.g., Shedler & Block, 1990), some research has linked marijuana use with a less successful transition into adult roles (Yamaguchi & Kandel, 1985a, 1985b; Kandel, Davies, Karus, & Yamaguchi, 1986). It is less clear how earlier marijuana use during emerging adulthood, the transition period from late adolescence to young adulthood (Arnett, 1998), is related to later relationship quality. Forming intimate relationships in young adulthood is one the central developmental tasks of this period (Erikson, 1968) and empirical research has demonstrated the beneficial impact of harmonious partner relationships (e.g., Laub, Nagin, & Sampson, 1998). It is conceivable that marijuana use may interfere with the process of adaptive relationship formation due to its association with unconventional lifestyles. According to role incompatibility theory, deviant behaviors such as drug use create role conflict and heighten relationship dissatisfaction because they are at odds with conforming to traditional social roles, such as

being a committed spouse (Fals-Stewart, Birchler, & O'Farrell, 1999, Newcomb, 1994; Yamaguchi and Kandel, 1985b).

Research that has examined the relationship between earlier marijuana use and later relationship quality has found contradictory results. Some research indicates that marijuana use is associated with an increased risk of marital disruption, less perceived partner support in women, and less perceived partnership consensus in men (Bachman et al., 1997; Newcomb, 1994; Yamaguchi & Kandel, 1985a). However, other studies have found no relationship between adolescent marijuana use and relationship problems in young adulthood (e.g., Brook, Adams, Balka, & Johnson, 2002; Newcomb & Bentler, 1988a).

Given the importance of intimate relationships for young adults' development and well-being, the goal of the current research was to explore how marijuana use during emerging adulthood may relate to the perceived quality of relationship with a significant other in the mid- to late twenties, when the assumption of adult roles, including involvement in an exclusive, intimate relationship, is considered normative (Yamaguchi & Kandel, 1985a). Specifically, we were interested in determining to what extent individuals' earlier marijuana use is associated with having a stable, harmonious, and low-conflict relationship with a significant other.

We also consider other constructs which may underlie the relationship between an individual's marijuana use and their later relationship with a partner, i.e., the individual's early interpersonal adjustment and the individual's relationship with his/her parents. Early signs of problems with relating to others may affect a person's quality of relationship with a significant other in adulthood. Similarly, from a perspective based in attachment theory, an individual who has experienced warm and supportive relationships with his/her parents is more likely to form a harmonious relationship with a significant other as an adult (e.g., Hazan & Shaver, 1987). Therefore, in this study, we included variables reflecting the individual's early interpersonal adjustment and the quality of his/her relationships with his/her parents and to see whether marijuana use in emerging adulthood predicted the quality of one's relationship with a significant other in the mid- to late twenties above and beyond these constructs.

Method

Participants

The sample for this study was based on a randomly selected group of 976 families who were living in two counties in upstate New York in 1975 (see Kogan, Smith, & Jenkins, 1977, for a detailed description of the sampling procedures). When the study was initiated in 1975, these families had children aged one to ten, who were then prospectively studied into adulthood. One child in the family in this age range was randomly selected to participate in the study. At the time of the first follow-up (T2) in 1983, the located sample (N = 702) was supplemented with a newly drawn sample of families living in urban areas in one of the two original counties. These 54 families had children in the age range of nine to twelve. The same sampling procedures used to obtain the original sample were used to recruit the supplementary sample. The supplemented sample closely matched the demographics of the two counties, as described in the 1980 census. The sample sizes for the follow-up studies (T2 – T5) were as follows: in 1983 (T2), the sample size was 756, in 1986 (T3), the sample size was 739; in 1992 (T4), the sample size was 750, and in 1996 (T5), the sample size was 749 (for more details, see Cohen & Cohen, 1996). The mean age of the participants was 14 years (SD = 3) at T2, 16 years (SD = 3) at T3, 22 years (SD = 3) at T4, and 27 years (SD = 3) at T5. Participants were predominantly White (91%), diverse in SES, and approximately half of them were women. Median income at T5 was \$14,999 – \$19,999 per year (range: \$0

to \$75,000 or more). Median educational achievement at T5 was a high school diploma (range: less than high school diploma to doctoral degree). Those participants who reported having a current relationship with a partner at T5, i.e., were either married or had an exclusive relationship with one partner were defined as having a “significant other” and included in the current analyses ($n = 534$). Comparisons of those who reported having a significant other at T5 versus those who did not revealed that single individuals reported greater interpersonal difficulties and aggression at T2 than those who were in a relationship ($t = 2.37, p < .05$; $t = 3.39, p < .001$, respectively).

Procedure

Participants in the current research were interviewed at T2, T3, T4, and T5 (only mothers were interviewed at T1). Each of these interviews lasted approximately 2 hours and interviewees were reimbursed for their time. At all time points, informed consent was obtained from the interviewees. All procedures used for data collection were approved by the Mount Sinai School of Medicine’s Institutional Review Board. A Certificate of Confidentiality was obtained from the Department of Health and Human Services and participants were assured that their answers would remain confidential.

Measures

Independent variables—Demographic control variables included the respondent’s gender and level of education. Age was not related to any of the outcomes and was therefore dropped from the analyses. Marijuana use during emerging adulthood (between T3 and T4) was assessed at T4 (mean age = 22) by asking the respondent whether he/she had ever used marijuana. If the answer to this was “yes”, the participant was asked, “During the past 5 years, how often did you use marijuana or hashish?” Response options included (1) “not at all,” (2) “once,” (3) “twice,” (4) “3–4 times,” (5) “5–11 times,” (6) “about once a month,” (7) “several times a month,” (8) “once a week,” (9) “several times a week,” and (10) “every day.”

Variables assessing participants’ early adjustment included interpersonal difficulty and interpersonal aggression measured at T2. Interpersonal difficulty was assessed by asking the respondents how often they had been bothered by a number of feelings in relationship to other people. Interpersonal aggression was measured by asking participants how true each of three statements representing hostile behavior towards others was for them. Sample items, answer ranges, and internal consistency of these scales are reported in Table 1.

Two composite variables were created to represent the respondents’ relationships with their parents. One variable reflected the positive dimensions of the adolescent respondent’s relationship with his/her mother; the other variable reflected the positive dimensions of the respondent’s relationship with his/her father, self-reported at T2 and T3. Positive dimensions of the mother and father relationship included the following variables: child-centeredness, maternal/paternal affection, time spent with the child, and maternal/paternal communication with the child. These measures have been found to predict adolescent problem behavior, including marijuana use in previous research (e.g., Brook, Whiteman, Balka, Win, & Gursen, 1998). Each of the individual scales was standardized and then all scales were added to form the composite “positive dimensions” with mother/father. Sample items, their source, and psychometric properties of the individual scales can be seen in Table 1.

Criterion variables—Three measures taken at mean age 27 (T5), relationship cohesion, relationship harmony, and disagreements with a significant other, were used as outcomes in these analyses. These measures and their psychometric properties are also listed in Table 1.

Statistical Analyses

To examine the relationships between earlier marijuana use by the respondent and later perceived relationship quality we used hierarchical regression analyses, entering the demographic variables (gender, education) and the early interpersonal adjustment variables at the first step. Next the parent relationship variables were entered into the model (step 2). Finally, marijuana use during emerging adulthood was entered in step 3. We also tested whether the relationship between marijuana use reported at T4 and partner outcomes at T5 was moderated by age and/or gender. However, since the interactions between age, gender and T4 marijuana use were not statistically significant, we dropped them from the regression models.

Results

Descriptive Analyses

Descriptive analyses indicated that of the 534 participants included in the analyses, 47% had never been married, 50% had been married once, and 3% had been married twice. Among those currently married, the average length of the marriage was 4 years ($SD = 2.07$). Thirty-one participants (5.8%) reported having been divorced.

Men used marijuana more frequently during emerging adulthood than did women ($t = -3.9$, $p < .0001$). Pearson correlations among all predictor and criterion variables are shown in Table 2. As expected, variables tapping relationship quality with a significant other were related to one another; however they were considered conceptually separate constructs. Correlations between predictor variables were small to medium in size, except for the correlation between positive dimensions with mother and father.

Tables 3, 4, and 5 present the regression coefficients, standard deviations, and R^2 at each step for the three hierarchical regressions predicting relationship quality with a significant other.

Results indicated that marijuana use during emerging adulthood predicted the quality of the relationship with a significant other in the mid- to late twenties above and beyond early interpersonal adjustment and the reported quality of the relationships with parents.¹ Marijuana use during emerging adulthood contributed to the explained variance in relationship cohesion, relationship harmony, and disagreement with the partner at a statistically significant level.

Discussion

While controlling for the participants' early psychological adjustment and the quality of their relationships with their mothers and fathers, we found that marijuana use predicted lower perceived levels of relationship harmony and cohesion and higher levels of disagreement with a significant other. The present study thus contributes to the literature on role incompatibility by suggesting that marijuana use during emerging adulthood affects the realm of intimate relationships in young adulthood in an adverse manner.

The period spanning our longitudinal investigation is particularly well suited for assessing the relationship between marijuana use and intimate relationships in terms of the

Because of the large correlation between positive dimensions with father and positive dimensions with mother, regressions were also conducted separately with each variable. While both father and mother positive dimensions reached statistical significance when entered separately, this did not affect the predictive power of marijuana use during emerging adulthood. Marijuana use still predicted variance in all three relationship outcomes above and beyond all other variables in the equation.

participants' ages. During emerging adulthood, the developmental period during which participants reported about their marijuana use at T4, illegal drug use reaches its peak (Chassin, Ritter, Trim, & Kim, 2003; Chen & Kandel, 1998). At the time of the assessment of the criterion variables (T5), participants' mean age was 27 years. Developmentally, the mid-twenties are a period during which young adults tend to form exclusive, intimate relationships with a significant other or to get married (Erikson, 1968). For example, the median age of first marriage in the United States was 26.5 for men and 24.5 for women in 1993 (Youth Indicators, 1996). These two age periods (emerging adulthood, mid-to late twenties) are ideally suited to study the longitudinal relationship between marijuana use and the quality of intimate relationships because they span a developmental period during which recreational drug use declines (Chen & Kandel, 1998; O'Malley et al., 1988) while forming intimate relationships becomes a central task. Negative associations between marijuana use and intimate relationships would be expected to surface during this transition period (Newcomb, 1994). Studies that have not found an association between marijuana use and relationship quality may have used samples whose ages did not allow them to detect such a relationship. It is conceivable that relationship problems related to drug use may not emerge in a younger sample because intimacy issues are not as salient at that stage of development (Brook et al., 2002).

With respect to the possible mechanisms explaining the relationship between marijuana use and reduced relationship quality, it is possible that marijuana use affects the individual's emotional development in a way that makes it hard to establish and/or maintain the level of intimacy required for a satisfying, exclusive relationship. Important capacities for relating to another person (e.g., empathizing and identifying with him/her), which normally increase during emerging adulthood, may be undermined by marijuana use (Newcomb & Bentler, 1988). One longitudinal study found that marijuana use in adolescence interfered with an affectionate parent-adolescent relationship (Brook et al., 1989). Such diminished capacity for intimacy may in part be due to depressive symptoms, which commonly occur with marijuana use (Patton, Coffey, Carlin, Degenhardt, Lynskey, & Hall, 2002). Similarly, marijuana use may give rise to an amotivational syndrome, which is associated with heightened disagreement and diminished harmony in relationships (Brook et al., 1999). In addition, most marijuana use is initiated during adolescence and continues into emerging adulthood (Kosterman, Hawkins, Guo, Catalano, & Abbott, 2000). Use of illegal drugs during this important developmental period may affect normative development in an adverse manner and result in impaired relational development at a later age (Brook et al., 1999; Newcomb & Bentler, 1988).

Limitations of this study include the self-report nature of all measures. However, research on self-report data has consistently supported their reliability and validity (e.g., Huizinga & Elliot, 1986). Furthermore, the correlational nature of the research design precludes us from making causal inferences about the association of marijuana use and partner outcomes. However, the longitudinal design of the study, as well as our attempt to control for other possible explanatory variables, strengthen our results. Our design would have been even stronger if we had been able to control for the T4 scores of the T5 outcome measures. Unfortunately, these were not available because most questions about relationships with significant others were added to the study at T5. This was also the reason for not including significant other marijuana use in the analyses. Arguably, relationship quality may be better if there were a match between the individual's use and that of his/her partner. Future research should assess this important factor when studying partner relationships during young adulthood.

Despite these limitations, the findings of this study add to the literature on role incompatibility (Brook et al., 1999; Yamaguchi & Kandel, 1985a) by suggesting that

marijuana use during emerging adulthood interferes with adult role aspects of a partner relationship. To consolidate this finding, future research should attempt to replicate our results, investigate the association between earlier marijuana use and other aspects of adult relationships, as well as study the associations between other legal and illegal substance use and the quality of relationships in young adulthood.

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Table 1

Measures, Sample Items, Sources, and Alphas

Measure (No. of items)	Sample Item	Source	Alpha
<i>Early Interpersonal Adjustment T2</i>			
Interpersonal difficulty	How often were you bothered by difficulty in feeling close to others? (1 = Not at all, 5 = Extremely)	Derogatis et al., 1974	0.74
Interpersonal Aggression	I make people angry by teasing them. (1 = True, 4 = False)		0.50
<i>Positive Relationship Dimensions With Parents T2/ T3 (pooled measure)</i>			
Maternal/Paternal child-centeredness (5)	She gives me a lot of care and attention. (1 = Not at all like my mother, 4 = Very much like my mother)	Schaefer, 1965	
Maternal/Paternal affection (4)	He frequently shows his love for me. (1 = Not at all like my father, 4 = Very much like my father)	Schaefer, 1965	
Time spent with mother/father (3)	Overall, about how much time would you say you spend doing recreational things with each of your parents? (1 = When special occasions occur, 5 = Everyday)	Original	Pooled measure: mother: 0.85 father: 0.80
Maternal/Paternal Communication (5)	She's very easy to talk to. (1 = Not at all like my mother, 4 = Very much like my mother)	Original	
<i>Relationship Quality with Significant Other</i>			
Relationship Cohesion (4)	How often do you talk about breaking up, separating, or divorce? (reversed) (1 = All the time, 6 = Never)	Original	0.84
Relationship Harmony (7)	You are very affectionate with each other. (1 = Never, 5 = Always)	Spanier, 1976	0.89
Disagreement (4)	How much do you disagree about handling finances? (1 = Disagree a lot, 4 = Agree a lot)	Spanier, 1976	0.69

Table 2

Means, Standard Deviations and Correlation Coefficients Among (N = 534)

Variable	M	SD	1	2	3	4	5	6	7	8
1. Interpersonal Difficulty T2	13.2	3.9	--	0.31***	-0.17***	-0.22***	0.01	-0.16**	-0.11*	-0.13**
2. Interpersonal Aggression T2	6.1	1.9	--	--	-0.12**	-0.11**	0.05	-0.07	-0.11*	0.11**
3. Mother Positive Dimensions T2/3	0.0	3.3	--	--	--	0.50***	-0.15***	0.17***	0.25***	-0.20***
4. Father Positive Dimensions T2/3	0.0	3.2	--	--	--	--	-0.18***	0.18***	0.18***	-0.21***
5. Marijuana Use T4	2.8	2.8	--	--	--	--	--	-0.16***	-0.15***	0.17***
6. Relationship Cohesion T5	25.4	3.3	--	--	--	--	--	--	0.69***	-0.58***
7. Relationship Harmony T5	30.9	3.7	--	--	--	--	--	--	--	-0.56***
8. Disagreement T5	6.4	2.3	--	--	--	--	--	--	--	--

Note:

* p < 0.05;

**

p < 0.01;

p < 0.001

Table 3
 Earlier Marijuana Use (T4) Predicting Relationship Cohesion with a Significant Other (T5): Hierarchical Regressions (N = 534)

Predictors	Model 1			Model 2			Model 3		
	b ^a (SE)	Δ R ²	R ²	b ^a (SE)	Δ R ²	R ²	b ^a (SE)	Δ R ²	R ²
Gender	-0.08 (0.30)			-0.14 (0.30)			-0.01 (0.30)		
Education	0.04 (0.06)			-0.01 (0.06)			0.00 (0.06)		
Interpersonal Difficulty T2	-0.13 ^{***} (0.05)			-0.10 [*] (0.04)			-0.10 [*] (0.04)		
Interpersonal Aggression T2	-0.04 (0.08)			-0.02 (0.08)			-0.10 (0.08)		
Relationship with mother T2/T3				0.09 [†] (0.05)			0.08 (0.05)		
Relationship with father T2/T3				0.12 [*] (0.05)			0.10 [†] (0.05)		
Marijuana Use T4							-0.15 ^{**} (0.05)		
			0.027 ^{**}			0.029 ^{***}			0.018 ^{**}
									0.074 ^{***}

Notes.

[†] p < 0.10,

* p < 0.05;

** p < 0.01;

*** p < 0.001.

^a Unstandardized regression coefficients at each step.

Table 4
 Earlier Marijuana Use (T4) Predicting Relationship Harmony with a Significant Other (T5): Hierarchical Regressions (N = 534)

Predictors	Model 1			Model 2			Model 3		
	b ^a (SE)	Δ R ²	R ²	b ^a (SE)	Δ R ²	R ²	b ^a (SE)	Δ R ²	R ²
Gender	-0.03 (0.33)			-0.08 (0.32)			0.03 (0.32)		
Education	0.13* (0.06)			0.07 (0.06)			0.08 (0.06)		
Interpersonal Difficulty T2	-0.08 [†] (0.04)			-0.04 (0.04)			-0.05 (0.04)		
Interpersonal Aggression T2	-0.13 (0.09)			-0.10 (0.09)			-0.11 (0.09)		
Relationship with mother T2/T3				0.22*** (0.06)			0.20** (0.06)		
Relationship with father T2/T3				0.07 (0.06)			0.05 (0.06)		
Marijuana Use T4							-0.15* (0.06)		
			0.025**			0.048***			0.014**
						0.073***			0.087***

Notes.

[†] p < 0.10,

* p < 0.05;

** p < 0.01;

*** p < 0.001.

^a Unstandardized regression coefficients at each step.

Table 5
 Earlier Marijuana Use (T4) Predicting Disagreements with a Significant Other (T5): Hierarchical Regressions (N = 534)

Predictors	Model 1			Model 2			Model 3		
	b ^a (SE)	Δ R ²	R ²	b ^a (SE)	Δ R ²	R ²	b ^a (SE)	Δ R ²	R ²
Gender	-0.04 (0.20)			0.01 (0.20)			-0.10 (0.20)		
Education	-0.06 [†] (0.04)			-0.03 (0.04)			-0.04 (0.04)		
Interpersonal Difficulty T2	0.06 [*] (0.03)			0.04 (0.03)			0.03 (0.03)		
Interpersonal Aggression T2	0.09 (0.05)			0.07 (0.05)			0.16 ^{***} (0.06)		
Relationship with mother T2/T3				-0.07 [*] (0.03)			-0.06 [†] (0.03)		
Relationship with father T2/T3				-0.09 [*] (0.04)			-0.08 [*] (0.04)		
Marijuana Use T4							0.10 ^{**} (0.03)		
			0.029 ^{**}			0.038 ^{***}			0.027 ^{***}
						0.067 ^{***}			0.094 ^{***}

Notes.

[†] p < 0.10,

* p < 0.05;

** p < 0.01;

*** p < 0.001.

^a Unstandardized regression coefficients at each step.