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Trajectories of Marijuana Use from Adolescence to Adulthood Predicting Unemployment in the Mid-Thirties

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Abstract

Background and Objectives—Unemployment (5.5% as of 2015) is a serious social and economic problem in our society. Since marijuana use is an important factor related to unemployment, identifying the trajectory of the use of marijuana may aid intervention programs and research on unemployment.

Methods—674 participants (53% African Americans, 47% Puerto Ricans) were surveyed (60% females) from age 14 to 36. The first data collection was held when the participants were students attending schools in the East Harlem area of New York City.

Results—We found that the chronic marijuana use (OR=4.07, $p<.001$; AOR=2.58, $p<.05$) and the late marijuana quitter (OR=2.91, $p<.05$) trajectory groups were associated with an increased likelihood of unemployment compared with the no marijuana use trajectory group.

Conclusions and Scientific Significance—The results suggest that those who use marijuana chronically are at greater risk for being unemployed. Consequently, these individuals should have access to and participate in marijuana cessation treatment programs in order to reduce their risk of unemployment. Unemployment intervention programs should also consider focusing on the cessation of the use of marijuana to decrease the likelihood of unemployment.

Keywords

marijuana use; trajectory analysis; longitudinal study; unemployment

INTRODUCTION

Although the unemployment rate in the U.S. has been decreasing steadily since the fourth quarter of 2009 (10.0%), it is still high (5.5%) as of 2015.¹ According to the Bureau of Labor Statistics, however, to be counted in the unemployment rate, an individual not only

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Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this paper.

has to be without a job, but also must have been actively looking for work in the past four weeks. That is, an individual who has given up looking for work is not counted in the unemployment rate. For this reason, many economists maintain that the real unemployment rate is higher than the reported rate, since it should count those workers who are discouraged and no longer looking for employment. Thus, uncovering the reasons for unemployment among both those still seeking work and those who are not is critical and may aid intervention and support programs.

A number of studies have found that unemployment is associated with poor physical² and mental³ health. In addition, another important factor related to unemployment is marijuana use. Findings based on retrospective data regarding marijuana use in the period prior to unemployment suggest that marijuana use is associated with future job loss.⁴ For instance, Schulenberg and colleagues⁵ reported that individuals in emerging adulthood who were consistently employed were more likely to abstain from marijuana use, and less likely to be chronic marijuana users, than peers who did not have a stable employment history. A longitudinal study also found that there was a statistically significant association between increasing levels of cannabis use at ages 14–21 and higher rates of unemployment at ages 21–25.⁶

Several researchers have used trajectory-based models to study the use of tobacco, alcohol, and marijuana.^{7, 8} Finlay and colleagues⁷ found a 2 group alcohol use trajectory model and a 4 group marijuana use trajectory model for African Americans, as well as a 4 group alcohol use and marijuana use trajectory models for Whites from mid adolescence to the mid 20s. Similarly, Mays and colleagues⁸ identified a 4 group smoking trajectory model using a non-Hispanic white and nonwhite adolescent sample. The present study extends our previous work,⁹ on the relationship between trajectories of marijuana use at ages 14–29 and work commitment at age 32, where the finding indicated that membership in the chronic marijuana use group was associated with low work commitment (e.g., skipped work). Here, we examine the relation between the trajectories of marijuana use from ages 14–36 and unemployment status at age 36 among urban racial/ethnic minority individuals.

Gender,¹⁰ low educational level,¹¹ low occupational aspirations and educational expectations,¹² marital status,¹³ parental status,¹⁴ previous unemployment,¹⁵ and physical disease¹⁶ are associated with unemployment. Therefore, these factors were used as control variables in the analyses of the association of marijuana use trajectories at ages 14–36 with unemployment at age 36.

Our study is unique in three ways. First, we assess the predictors of unemployment status among relatively understudied minority groups (i.e., African Americans and Puerto Ricans) living in an urban area. Second, we follow an adolescent sample over several development stages from mean age 14 to mean age 36, in contrast to the majority of prior research, which has been conducted using cross-sectional samples either of adolescents or young adults. Third, we identify the trajectories of marijuana use over a 22 year period as predictors of unemployment status.

We hypothesize that: 1) there will be at least one more trajectory group than noted in previous research (i.e., 4 marijuana use trajectory groups), namely, a quitter trajectory group since **our** trajectory analysis includes two more time waves at ages 32 and 36, which were not assessed in prior analyses; 2) the higher level of marijuana use trajectory groups (e.g., the chronic marijuana use trajectory group) compared to the no or low marijuana use trajectory group will be associated with an increased likelihood of unemployment; 3) the quitter group compared to the no or low marijuana use trajectory group will not have an increased likelihood of unemployment; and 4) the association between patterns of marijuana use and unemployment status will be significant after controlling for demographic factors, the psychological factor, the physical factor, and previous unemployment.

METHODS

Participants

The time 6 (T6) questionnaires were completed by 674 participants (53% African Americans, 47% Puerto Ricans). Sixty percent were females (n=405). Data on the participants were first collected in 1990 (time 1; T1, N=1,332) when the participants were students attending schools in the East Harlem area of New York City. At T1, the questionnaires were administered in classrooms under the supervision of the study research staff with no teachers present. The mean age of the participants at T1 was 14.1 years (standard deviation; SD=1.3 years; inter-quartile range from 13 to 15 years). At time 2 (T2; 1994 – 1996; N=1,190), the National Opinion Research Center interviewed the participants in person or by phone. The mean age of the participants at this wave was 19.2 years (SD=1.5 years; inter-quartile range from 18 to 20 years). At time 3 (T3; 2000 – 2001; N=662 – due to budgetary limitations, we took a subsample of T2 participants), the Survey Research Center of the University of Michigan collected the data. The mean age of the participants at T3 was 24.4 years (SD=1.3 years; inter-quartile range from 23 to 25 years). At Time 4 (T4), Time 5 (T5), and T6, the data were collected by our research group. At T4 (2004 – 2006; N=838), the mean age was 29.2 years (SD=1.4 years; inter-quartile range from 28 to 30 years). At T5 (2007 – 2010; N=816), the average age of the participants was 32.3 years (SD= 1.3 years; inter-quartile range from 31 to 34 years). At T6 (2011 – 2013; N=674), the average age of the participants was 35.9 years (SD= 1.4 years; inter-quartile range from 35 to 37 years). At T3, T4, T5, and T6, we used self-administered questionnaires.

The Institutional Review Board (IRB) of the New York University School of Medicine approved the study for T4, T5 and T6, and the IRBs of the Mount Sinai School of Medicine and New York Medical College approved the study's procedures for data collection in the earlier waves. A Certificate of Confidentiality was obtained from the National Institute on Drug Abuse for T1-T4 and T6 and from the National Cancer Institute at T5. At each time wave, we obtained informed assent or consent from all of the participants. Additional information regarding the study methodology is available in a previous report.⁹

At T6, we attempted to follow-up all those who participated at T1. We compared the demographic variables for the 674 adults who participated at both T1 and T6 with the 658 who participated at T1 but not at T6. There were no significant differences between the T6 non-participants and the T6 participants in the proportion of African Americans and Puerto

Ricans ($\chi^2(1) = 0.18, p=0.7$), in the frequency of marijuana use at T1 ($t = -1.35, p=0.18$), in overall grade point average at T1 ($t = -1.84, p=0.07$), in educational and occupational expectations at T1 ($t = -0.89, p=0.37$), and in work hours during the school year at T1 ($t=0.42, p=0.67$). However, the percentage of males among T6 non-participants (53%) was significantly higher than the percentage of males who participated at T6 (40%) ($\chi^2(1) = 26.06, p<.001$).

Measures

Table 1 presents the measures of independent variables, demographic factors, the psychological factor, the physical factor, and previous unemployment used in this study. The dependent variable, *Unemployment status* (T6), was a single item. The participants were asked about their employment status. The answer options were: 1=full-time for pay, 35 hours or more per week (69.5%), 2=part-time for pay (10.2%), 3=not at work because of temporary illness or disability (2.7%), 4=not at work because of leave, vacation, or strike (1.0%), 5=not employed (10.3%), and 6=not employed, and a full time homemaker (6.3%). If the participants responded not employed during the past year (answer option 5), then the measure of unemployment status was set to a score of 1. For the other answer options (1, 2, 3, 4, and 6), the measure of unemployment status was set to a score of 0.

Analytic Procedure

We used a growth mixture model to obtain the trajectories of marijuana use from T1 to T6 using Mplus software.¹⁷ Marijuana use at each point in time was treated as a censored normal variable. We applied the full information maximum likelihood approach for missing data¹⁷. We used the optimal Bayesian Information Criterion (BIC) to estimate the number of trajectory groups depicted in Figure 1. Each participant was assigned to the trajectory group with the largest Bayesian posterior probability (BPP) to create this figure.

To examine the associations of membership in a trajectory group, we used logistic regression analyses¹⁸ with the indicator of unemployment at T6 as the dependent variable and the BPP of membership in the trajectory groups and the remaining variables (gender, ethnicity, educational level at T5, marital status at T5, parental status at T5, educational and occupational expectations at T2, physical disease at T5, and prior unemployment status at T5) as the independent variables. The BPP of the no marijuana use trajectory group was used as the reference variable.

RESULTS

The mean and SD scores of marijuana use at each point in time were 0.2 (0.7), 0.9 (1.4), 1.2 (1.5), 1.0 (1.5), 0.9 (1.5), and 0.9 (1.4) for T1-T6, respectively. We computed solutions for 2 through 6 trajectory groups. The BICs for a 2, 3, 4, 5, and 6-group model were 7813, 7647, 7598, 7577, and 7593, respectively. We chose the 5 trajectory group model because it had the smallest BIC (See Figure 1). The mean BPP of the participants who were assigned to the groups ranged from 78% to 98%, which indicated an adequate classification.

As shown in Figure 1, we labeled the five marijuana use trajectory groups as follows. The no marijuana use trajectory group had an estimated prevalence of 38% and included

participants who reported no use of marijuana at each wave. The moderate marijuana user group included participants who reported no use of marijuana at age 14 but use of marijuana a few times a year thereafter. This group had an estimated prevalence of 21%. The chronic marijuana user group included participants who reported almost no use of marijuana at age 14 but use of marijuana monthly at age 19 (i.e., on average 2 use), and use more than several times a month at ages 24, 29, 32, and 36. This group had an estimated prevalence of 20%. The early quitter group included participants who reported almost no use of marijuana at age 14 but use of marijuana less than monthly at age 19 (i.e., on average 1.5 use), use a few times a year at age 24, and finally no use at ages 29, 32, and 36. This group had an estimated prevalence of 12%. The late quitter group included participants who reported almost no use of marijuana at age 14 but use of marijuana about monthly (i.e., on average 2 use) at age 19, use at least monthly but less than several times a month (i.e., on average 2.5 use) at age 24 and age 29, then use from more than a few times a year to less than monthly at age 32, but no use of marijuana at age 36. This group had an estimated prevalence of 8%. Overall, the findings indicated that at age 36, 41% of the participants continued to use marijuana, 21% of the participants quit their marijuana use, and 38% of the participants never used marijuana. Summary statistics (i.e., mean, standard deviation, percentage) in each of the marijuana use trajectory groups are presented in Table 2.

Table 3 presents: a) the odds ratios (OR) without the control variables and b) the adjusted odds ratios (AOR) of each marijuana use trajectory group compared to the no marijuana use trajectory group for unemployment status at T6 after adjusting for the other 8 variables. A higher BPP for the chronic marijuana use trajectory group ($OR=4.07, p<.001$; $AOR=2.58, p<.05$) was associated with an increased likelihood of unemployment at T6 compared with the BPP of the no marijuana use trajectory group. A higher BPP for the late quitter trajectory group ($OR=2.91, p<.05$) was associated with unemployment at T6 compared with the BPP of the no marijuana use trajectory group, but the AOR was not significant. Finally, membership in the moderate marijuana use trajectory group and the early quitter trajectory group was not significantly associated with an increased likelihood of unemployment at T6 compared with the no marijuana use trajectory group.

In addition, male gender ($OR=2.12, p<.01$), lower educational level at T5 ($OR=0.75, p<.001$; $AOR=0.80, p<.05$), lower educational and occupational expectations at T2 ($OR=0.61, p<.001$; $AOR=0.68, p<.05$), physical disease at T5 ($OR=2.01, p<.05$; $AOR=2.19, p<.05$), and unemployment at T5 ($OR=5.03, p<.001$; $AOR=3.35, p<.01$) were associated with an increased likelihood of unemployment at T6.

Although not hypothesized, we compared the trajectory groups of late marijuana quitters, moderate marijuana users, early marijuana quitters, and no marijuana users with the chronic marijuana use trajectory group. A higher BPP for the moderate marijuana use trajectory group ($OR=0.39, p<.05$) and the no marijuana use trajectory group ($OR=0.25, p<.001$; $AOR=0.39, p<.05$) were associated with a decreased likelihood of unemployment at T6 compared with the BPP of the chronic marijuana use trajectory group.

DISCUSSION

Our findings indicate that membership in the chronic marijuana use trajectory group is associated with an increased likelihood of unemployment in the mid 30s as compared to the no marijuana use trajectory group. This association was still maintained when we controlled for independent variables such as gender, ethnicity, educational level at T5, marital status at T5, parental status at T5, educational and occupational expectations at T2, physical disease at T5, and unemployment status at T5. Our results are consistent with findings from Compton et al.⁴ and Fergusson et al.⁶ who found that earlier marijuana use is related to later unemployment. Interestingly, however, the moderate marijuana use and the early marijuana quitter trajectory groups were not significantly different from the no marijuana use trajectory group in terms of unemployment both with and without controls.

Overall, our hypotheses are partially supported. First, there are 5 trajectory groups including the chronic marijuana use, moderate marijuana use, late marijuana quitter, early marijuana quitter, and no marijuana use trajectory groups. Second, the chronic marijuana use (in the bivariate and the multivariate analyses) and late marijuana quitter (in the bivariate analysis) trajectory groups are associated with an increased likelihood of unemployment as compared to the no marijuana use trajectory group. Third, one of the quitter groups, namely, the early marijuana quitter trajectory group, was not significantly associated with an increased likelihood of unemployment. Fourth, the association between the chronic marijuana use trajectory group and unemployment is still significant after controlling for a number of dimensions related to unemployment.

Some of our control variables such as educational and occupational expectations, educational level, previous unemployment, and physical disease may play a role as possible mediational factors in the association between earlier marijuana use and later unemployment. As expected, higher educational and occupational expectations in adolescence are associated with a decreased likelihood of unemployment in adulthood. Domina and colleagues¹⁹ have found that educational expectations continue to have robust positive effects on student perceptions regarding student effort in high school. College expectations may continue to motivate student efforts and may help the student complete a higher level of education. In accord with our findings, people with a higher educational level have a higher probability of being employed.²⁰ In a related vein, one study assessed the impact of education on the probability of re-employment conditional on being unemployed one year earlier and found that education was significantly associated with re-employment among the unemployed.²¹

With regard to physical disease, long-term physical illness may be associated with an increased risk of disability and eventually job termination. Previous studies suggest that being on long-term disability may have adverse consequences on an individual's psychological well-being, work situation and social activities.^{22, 23} Chronic disease may lead to decreased social involvement at work. Less social integration may then affect the vulnerability and future health of individuals thereby increasing their risk of unemployment.

The continuation of unemployment is another interesting and important finding. The findings of Virtanen et al.¹⁴ are in accord with ours that earlier unemployment at T5 is associated with later unemployment at T6. The unemployed may struggle to find a job both during the initial period of unemployment and for many years subsequently.²⁴

Although not examined in the present study, some other factors might be mediating variables for the relation between marijuana use and unemployment. One possible mediator could be the frequency of absence from work due to marijuana use. Previous research has found that heavy/chronic marijuana users are more likely to be absent from work than individuals who abstain from marijuana use.^{9, 25} Marijuana use is also related to a number of physical diseases such as respiratory disease, lung cancer, and coronary disease.^{26, 27} Indeed, many of the extra sick days among the marijuana users were because of respiratory illnesses.²⁸ This may stigmatize marijuana users and could contribute to the labor market avoiding those employees who use or used marijuana.

This study has some limitations. First, our data are based on self-reports rather than official records (e.g., medical records). However, studies have shown that self-report data yield reliable results.^{29, 30} Second, our sample included African American and Puerto Rican participants living in a particular geographical urban area. Thus, we are limited in our ability to generalize beyond the present sample. Third, since we did not have several important measures such as home ownership and testing for drug use, we could not include them in the analysis. Future studies should consider adding these important variables.

Despite these limitations, the study has a number of strengths. First, unlike most research studies that focus on only one or two points in time, we assessed marijuana use at six waves covering important developmental stages from age 14 to 36. Second, the prospective nature of the data enabled us to go beyond a cross-sectional analysis and to take into consideration the temporal sequencing of variables. Third, the present study is unique since this study examined marijuana use trajectories as related to an important and problematic issue in our society, namely, unemployment. Fourth, we controlled for a variety of dimensions: gender, ethnicity, educational level at T5, marital status at T5, parental status at T5, educational and occupational expectations at T2, physical disease at T5, and prior unemployment status at T5. Fifth, this is the first longitudinal study focused on African Americans and Puerto Ricans living in an urban area that examines earlier marijuana use and later unemployment over two decades (22 years).

The present study has public health implications for a number of people who are unemployed. Given the long term associations of chronic marijuana users and late marijuana quitters from adolescence to adulthood and unemployment in adulthood, chronic marijuana use should be treated as an important social and public health problem. Efforts made to reduce the chronic use of marijuana may decrease the unemployment rate in our society. The results should emphasize that those who use marijuana and who are at risk for being unemployed ought to consider joining and completing marijuana cessation programs in order to reduce the risk of their unemployment.

From a policy perspective, our findings suggest that the decriminalization of recreational marijuana use or legalization of medical marijuana might have an adverse effect on the US unemployment rate. Indeed, a study using a sample of 34,653 adults (18 years old) based on the National Epidemiologic Survey on Alcohol and Related Conditions reported that residents of states with legalized medical marijuana use had higher odds of marijuana use and marijuana abuse/dependence than residents of states without such laws.³¹ This phenomenon may happen in states where marijuana use is legal for recreational purposes (e.g., Colorado and Washington). Our results imply the importance of monitoring trends in the rate of unemployment in areas where marijuana use or medical marijuana use have been decriminalized or are considered legal.

Clinically, cognitive behavioral therapy and motivational enhancement therapy have both proven effective for the treatment of marijuana use.³² These approaches can be administered in a short-course format, thus increasing their cost effectiveness³³ and decreasing the likelihood of program attrition. To our knowledge, there is currently no approved pharmacotherapy for marijuana use or its withdrawal syndrome, although research is active in these areas.³² However, some drugs, such as oral Δ^9 -tetrahydrocannabinol (the active ingredient in marijuana), buspirone (for anxiety), zolpidem, and gabapentin (both for insomnia), have demonstrated promise in the treatment of the marijuana withdrawal syndrome.^{32, 33} The management of this syndrome is important as it may reduce the likelihood that individuals resume marijuana use in order to alleviate withdrawal symptoms, i.e., relapse.³⁴

Prevention programs should focus on decreasing marijuana use in adolescence or quitting marijuana use in young adulthood. Informing adolescents and young adults about the association of marijuana use and unemployment may make prevention programs more effective in decreasing the rate of unemployment. Finally as chronic marijuana use is related to unemployment, the study of chronic marijuana use is an important and meaningful area for prevention science.

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FIGURE 1.

Trajectories of Marijuana Use from Mid Adolescence to Mid Thirties

Note. The answer options for marijuana use: 0 = never, 1 = a few times a year or less, 2 = about once a month, 3 = several times a month, and 4 = once a week or more.

TABLE 1

Measures

		Number of items	Sample item	Answer options	Construction
Independent variable	Marijuana use at T1-T6	1	How often have you ever used marijuana? at T1 How often have you used marijuana in the past 5 years? At T2-T6	Never (0) to once a week or more (4)	NA
Demographic factors	Gender	1	Identify your gender.	Female (1); Male (2)	NA
	Ethnicity	1	Identify your ethnicity.	AA (1); PR (2)	NA
	Educational level at T5	1	What is the last year of school you completed? If you are currently in school, what year are you in?	11 th grade or below (0) to postgraduate business, law, medical, masters, or doctoral program (7)	NA
Psychological factor	Marital status at T5	1	Are you currently cohabiting or married?	No (0); Yes (1)	NA
	Parental status at T5	1	Do you have at least one child?	No (0); Yes (1)	NA
	Educational and occupational expectations at T2	2	a. How many years of school do you think you will complete?	a. leave before graduating high school (1) to get a master's, law, or doctoral degree (6)	Summed score of the two items.
			b. What kind of job do you think you will have when you are about 30 years old?	b. semi-skilled worker (1) to professional worker (4)	
Physical factor	Physical disease at T5	3	a. Have you ever had mononucleosis?	No (0); Yes (1)	If summed score of the three items 1, then it was set to 1; otherwise it was 0.
			b. Have you ever had hypertension?		
			c. Have you ever had coughing up phlegm or blood?		
Previous unemployment	Unemployment at T5	1	In the past year, how many hours per week did you usually work?	Full time (1); part time (2); not at work because of temporary illness or disability (3); not at work because of leave, vacation, or strike (4); not employed (5); not employed, and a full time homemaker (6)	Answer option 5 was set to a score of 1; otherwise it was 0.

Notes. AA= African American, PR=Puerto Rican

TABLE 2
Summary statistics by marijuana use trajectory group (Mean with standard deviation or percentage)

	Marijuana use trajectory groups				Whole sample (N=674)
	None user (38%, n=258)	Early quitter (12%, n=84)	Moderate user (21%, n=141)	Late quitter (8%, n=55)	Chronic user (20%, n=136)
<i>Demographic factors</i>					
Females	74.0% (n=191)	70.2% (n=59)	58.1% (n=82)	49.1% (n=27)	33.8% (n=46)
African Americans	53.9% (n=139)	51.2% (n=43)	46.1% (n=65)	60.0% (n=33)	55.9% (n=76)
Educational level at T5	3.3 (2.3)	2.8 (2.2)	3.0 (2.4)	2.0 (1.7)	2.0 (2.1)
Marital status at T5	56.2% (n=145)	54.8% (n=46)	47.5% (n=67)	38.2% (n=21)	42.7% (n=58)
Parental status at T5	70.0% (n=180)	71.4% (n=60)	68.8% (n=97)	60.0% (n=33)	64.0 (n=87)
<i>Psychological factor</i>					
Educational and occupational expectations at T2	4.1 (0.9)	3.8 (0.9)	4.0 (0.9)	3.5 (0.8)	3.6 (1.0)
<i>Physical factor</i>					
Physical disease at T5	32.6% (n=84)	33.3% (n=28)	37.6% (n=53)	27.3% (n=15)	35.2% (n=48)
<i>Previous unemployment</i>					
Unemployment at T5	2.3% (n=6)	3.6% (n=3)	8.5% (n=12)	10.9% (n=6)	4.4% (n=6)
<i>Dependent variable</i>					
Unemployment at T6	5.8% (n=15)	8.3% (n=7)	9.2% (n=13)	14.6% (n=8)	19.1% (n=26)
					10.2% (n=69)

Note. Answer options for educational level at T5 are 0 = 11th grade or below, 1 = 12th grade or GED, 2 = business or technical school, 3 = college freshman, 4 = college sophomore or associate's degree, 5 = college junior, 6 = college senior (Bachelor's degree), and 7 = postgraduate business, law, medical, masters, or doctoral program.

Answer options for educational occupational expectations at T2 are constructed by summing two items a) how many years of school do you think you will complete? (1 = leave before graduating high school, 2 = finish high school only, 3 = technical, nursing, or business school after high school, 4 = some college but less than 4 years, 5 = graduate from a 4-year college, and 6 = get a master's, law, or doctoral degree) and b) what kind of job do you think you will have when you are about 30 years old? (1 = semi-skilled worker, 2 = skilled worker, 3 = clerical or sales, and 4 = professional).

TABLE 3

Logistic Regressions: Trajectories of Marijuana Use with Nonusers as the Reference Group on T6 Unemployment Status (N=674)

Independent Variables		T6 Unemployment Status	
		OR (95% CI) Bivariate Analyses	AOR (95% CI) Multivariate Analysis
Trajectories of marijuana use	BPP of chronic marijuana users	4.07 (1.97, 8.42) ***	2.58 (1.11, 6.03) *
	BPP of late marijuana quitters	2.91 (1.05, 8.05) *	1.45 (0.45, 4.66)
	BPP of moderate marijuana users	1.59 (0.67, 3.75)	1.35 (0.52, 3.52)
	BPP of early marijuana quitters	1.53 (0.44, 5.36)	1.30 (0.33, 5.15)
Demographic factors	Gender (Female=1; Male=2)	2.12 (1.28, 3.51) **	1.14 (0.61, 2.11)
	Ethnicity (AA=1; PR=2);	0.97 (0.59, 1.59)	0.67 (0.37, 1.22)
	Educational level at T5	0.75 (0.65, 0.85) ***	0.80 (0.66, 0.96) *
	Marital status at T5	0.70 (0.42, 1.16)	0.82 (0.46, 1.48)
Psychological factor	Parental status at T5	0.94 (0.56, 1.60)	0.78 (0.39, 1.55)
	Educational and occupational expectations at T2	0.61 (0.47, 0.78) ***	0.68 (0.48, 0.96) *
Physical factor	Physical disease at T5	2.01 (1.11, 3.65) *	2.19 (1.15, 4.20) *
Previous unemployment	Unemployment at T5	5.03 (2.32, 10.88) ***	3.35 (1.40, 8.00) **

Notes:

¹. OR= Odds Ratio; AOR=Adjusted Odds Ratio; CI=Confidence Interval; AA=African American; PR=Puerto Rican

². * $p < .05$; ** $p < .01$; *** $p < .001$.