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Emerging adulthood themes, role transitions and substance use among Hispanics in Southern California

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Abstract

Introduction—Hispanic emerging adults appear to be at especially high risk for substance use but little is known about their risk and protective factors. A crucial next step to reducing substance use among this priority population may involve understanding how transition-to-adulthood themes are associated with substance use. Intervention and prevention programs could also benefit from information about which if any specific transitions undergone in emerging adulthood are associated with substance use.

Methods—Hispanic emerging adults (aged 18 to 24) completed surveys indicating their identification with transition-to-adulthood themes, role transitions in the past year, and use of alcohol and marijuana. Logistic regression models were used to examine the associations between transition-to-adulthood themes and past-month binge drinking and marijuana use, controlling for age and gender. Separate logistic regression models explored the association between each individual role transition and past-month binge drinking and marijuana use, controlling for age and gender and using a Bonferonni correction.

Results—Among the participants (n=1,390), 41% were male, the average age was 21, 24% reported past-month marijuana use and 34% reported past-month binge drinking. Participants who felt emerging adulthood was a time of focusing on others were less likely to report marijuana use and binge drinking. Among the 24 transitions, five were significantly associated with past-month marijuana use and 10 were significantly associated with past-month binge drinking.

Conclusion—Findings suggest transition-to-adulthood themes as well as specific changes experienced by emerging adults are meaningful for Hispanics and should be explored in prevention and intervention programs in the future. Future research should determine what specific mechanisms are making these transitional processes risk factors for substance use.

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Keywords

Hispanics; Emerging Adults; Marijuana; Binge drinking; Substance use

1. Introduction

Emerging adulthood is an impressible period marked by change, exploration and development between the ages of 18 to 25 (Arnett, 2011). Substance use, including binge drinking and marijuana use, is more prevalent among emerging adults than among older or younger groups (SAMHSA, 2012). Substance use varies across racial/ethnic groups (Shih, Miles, Tucker, Zhou, & D'Amico, 2010). Among emerging adults, Hispanics are at especially high risk for substance use, (Stone, Becker, Huber, & Catalano, 2012) but little is known about their risk and protective factors.

A crucial next step to reducing substance use among this priority population may involve understanding how the specific thoughts and feelings regarding emerging adulthood influence substance use decisions. Because multiple life transitions can occur during emerging adulthood, it may also be useful to know which specific transitions are associated with substance use (Arnett, 2005). The stress from life transitions may lead some emerging adults to engage in unhealthy behaviors as a coping mechanism. Hispanics are unique among emerging adults because they experience a large number of transitions due to an increase in their obligations to scholastics, their family and their jobs in emerging adulthood (Arnett, 2003). This study investigated which emerging adulthood themes and role transitions experienced by Hispanic emerging adults are associated with substance use.

2. Material and methods

Participants completed surveys for Project RED (Lorenzo-Blanco, Unger, Ritt-Olson, Soto, & Baezconde-Garbanati, 2012), a longitudinal study of Hispanics in Southern California. Participants were first enrolled in the study as adolescents, attending seven high schools in the Los Angeles area (see Unger, Ritt-Olson, Wagner, Soto, & Baezconde-Garbanati, [2009] for information on recruitment and survey procedures). Participants were surveyed in emerging adulthood from 2010 to 2012 (n=1,390). Those lost to follow-up were more likely to be male, binge drinkers and marijuana users in high school but did not differ by age. The university's Institutional Review Board approved all procedures.

Transition-to-adulthood themes were assessed with the Inventory of the Dimensions of Emerging Adulthood (IDEA) (Reifman, Arnett, & Colwell, 2007). The IDEA instrument has six subscales, which operationalizes the main themes or pillars of emerging adulthood (Arnett, 2000). Respondents were asked to rate this time in their lives (defined as a five-year period, with the present time in the middle) on a list of dimensions. Responses were coded as "strongly disagree"=1, "somewhat disagree"=2, "agree"=3, and "strongly agree"=4. The subscales, corresponding reliability coefficient, and an example question are as follows: Identity Exploration (Cronbach's alpha []=0.85) e.g., "time of finding out who you are?", Experimentation/Possibilities (=0.80) e.g., "time of many possibilities?", Negativity/Instability (=0.85) e.g., "time of confusion?", Other-Focused (=0.77) e.g., "time of responsibility for others?", Self-Focused (=0.79) e.g., "time of personal freedom?", and Feeling "In-Between" (=0.68) e.g., "time of feeling adult in some ways but not others?". The outcome variables--past-month binge drinking and past-month marijuana use--were coded "Yes"=1 or "No"=0. To examine the relationship between substance use and identification with transition-to-adulthood themes, past-month marijuana use and binge drinking were regressed on the IDEA scores, controlling for age and gender.

The list of 24 non-redundant role transitions (described by Allem, Soto, Baezconde-Garbanati, & Unger, 2013) was developed based on focus groups and literature reviews. Items were prefaced with “Has this happened to you in the last year?” and coded “Yes”=1 or “No”=0. To avoid multicollinearity, 24 separate logistic regression models examined relationships between each transition and past-month binge drinking and marijuana use, controlling for age and gender. To control for Type I errors due to multiple tests, a Bonferonni correction was used to determine statistical significance; p -values $< .002$ ($.05/24$) were considered significant.

It is possible that those who use substances are more likely to experience role transitions. Project RED's longitudinal design made it possible to explore these associations by using binge drinking and marijuana use in high school as predictors for each transition in emerging adulthood. We used longitudinal data from participants who completed surveys in 11th grade (average age=16) and about 3 years later in emerging adulthood ($n=928$). For all analyses, quantities of interest were calculated using the estimates from each multivariable analysis by simulation using 1,000 randomly drawn sets of estimates from a sampling distribution with mean equal to the maximum likelihood point estimates and variance equal to the variance covariance matrix of the estimates, with covariates held at their mean values (King, Tomz, & Wittenberg, 2000).

3. Results

Among the participants, 41% were male, the average age was 21, 24% reported past-month marijuana use and 34% reported past-month binge drinking (Table 1). Participants who felt emerging adulthood was a time of focusing on others were less likely to report marijuana use. A difference in score on the other-focused subscale between the 10th percentile and the 90th percentile was associated with a -12% (95% Confidence Interval [CI], -17 - -6) lower probability of past-month marijuana use (Figure 1A). Participants who felt emerging adulthood was a time of experimentation and possibilities were more likely to report past-month marijuana use, but this association was only marginally statistically significant ($p=0.07$). Participants who felt emerging adulthood was a time of focusing on others were also less likely to report binge drinking. A difference in score on the other-focused subscale between the 10th percentile and the 90th percentile was associated with a -12% (95% CI, -19 - -5) difference in probability of past-month binge drinking. The remaining IDEA subscales were not statistically significantly associated with past-month binge drinking.

3.1 Role transitions and substance use

Participants who reported addiction to drugs or alcohol, being arrested, overcoming an addiction, experiencing a breakup or dating someone new in the past year had higher probabilities of past-month marijuana use, ranging from 43% (95% CI, 25 - 58) to 10% (95% CI, 6 - 15) compared to those who did not experience these transitions respectively (Figure 1B). Participants who reported addiction to drugs or alcohol, being arrested, overcoming an addiction, experiencing a breakup, dating someone new, a demotion at work, a new romance, or a new job had higher probabilities of past-month binge drinking, ranging from 36% (95% CI, 17 - 51) to 8% (95% CI, 3 - 13) compared to participants who did not experience these transitions respectively. Conversely, emerging adults who reported becoming engaged were -16% (95% CI, -22 - -8) less likely to report past-month binge drinking compared to those who did not become engaged. Emerging adults who reported having a baby were -18% (95% CI, -24 - -10) less likely to report past-month binge drinking compared to those who did not have a baby.

3.2 Reverse Association

Those who reported past-month binge drinking in high school were 11% (95% CI, 6 - 18) more likely to report having a baby in emerging adulthood compared to those who did not report binge drinking in high school. Those who reported past-month marijuana use in high school were more likely to report having moved in with a boy/girlfriend, having a baby, and being arrested in emerging adulthood compared to those who did not report marijuana use in high school, 13% (95% CI, 6 - 21), 13% (95% CI, 6 - 20) and 5% (95% CI, 1 - 10), respectively. Those who reported past-month marijuana use in high school were -14% (95% CI, -23 - -6) less likely to have reported starting college or new school or classes compared to those who did not report marijuana use in high school.

4. Conclusion

This study identified multiple transition-to-adulthood themes that were associated with substance use. Feeling that emerging adulthood was a time of focusing on others was associated with less substance use. This finding is consistent with previous research that suggested some minority youth, including Hispanics, identify commitments to family members as an aspect of the transition to adulthood (Arnett & Tanner, 2006; Fuligni & Pedersen, 2002). It may be useful to address transition-to-adulthood themes in prevention and intervention programs among Hispanic emerging adults. Hispanic emerging adults who are seeking treatment for substance use problems may be advised to strengthen their relationships with family members and appreciate the benefits of interdependence and reciprocity within the family, which includes making and keeping commitments toward loved ones.

Feeling that emerging adulthood was a time of experimentation and possibility was marginally associated with greater marijuana use. This finding is similar to an earlier study of alternative high school students (Lisha et al., 2012). Themes of experimentation and possibility could be addressed in treatment and/or prevention programs by encouraging participants to fulfill their need for experimentation in more adaptive ways. Providing emerging adults with recreational non-substance use activities could introduce them to new and exciting activities to fulfill their need for experimentation and new possibilities.

This study also identified role transitions associated with substance use. The transition most strongly associated with marijuana use and binge drinking was addiction to alcohol/drugs, followed by being arrested and overcoming an addiction. These associations may reflect a syndrome of risky behavior (Jessor, Donovan, & Costa, 1991). Earlier research has shown associations among alcohol, tobacco, and drug use among Hispanic emerging adults (Resor & Cooper, 2010; Cooper, Rodríguez de Ybarra, Charter, & Blow, 2011) but did not consider role transitions in emerging adulthood. Future research should consider transition-to-adulthood themes as well as specific role transitions as mediators.

Starting and ending romantic relationships were common transitions among this sample of emerging adults and were associated with a higher probability of substance use, consistent with previous studies (Cerbone & Larison, 2000; Fleming, White, Oesterle, Haggerty, & Catalano, 2010; Allem et al., 2013). Fluctuations in career success, including the uncertainty of a new job, may also increase binge drinking (Keyes, Hatzenbuehler, & Hasin, 2011).

Certain transitions were protective against binge drinking, including having a baby or becoming engaged. Interdependency may be especially salient to Hispanic emerging adults (Arnett, 2003) and could be leveraged in prevention and intervention programs. Previous research has found having a baby in emerging adulthood was associated with lower rates of substance misuse (Oesterle, Hawkins, & Hill, 2011) and marriage also may reduce alcohol

consumption (Leondard, & Rothbard, 1999; Bogart, Collins, Ellickson, Martino, & Klein, 2005).

An assessment of reverse association indicated that binge drinking and marijuana use in high school predicted having a baby in emerging adulthood. This finding should be interpreted within the larger context of Hispanic cultures. Hispanics, compared to Whites, typically have lower SES and are more likely to become parents in their twenties (Arnett, 2003). While having a child is not typically endorsed as criteria for having reached adulthood, individuals who become parents at a young age often feel that they are unexpectedly thrown into adulthood. In addition, ethnic minority groups have been shown to place a higher importance on the role of parenthood as criteria for adulthood (Arnett, 2003). Marijuana use in high school was also predictive of one moving in with a boyfriend or girlfriend in emerging adulthood. Perhaps substance users leave the family home earlier than nonusers, due to conflicts about substance use. This early departure may be a risk factor for other problem behaviors in the future (Krohn, Lizotte, & Perez, 1997). Marijuana users in high school were also more likely to be arrested and less likely to have started college or classes in emerging adulthood, consistent with previous research (Slade et al., 2008; Bray, Zarkin, Ringwalt, & Qi, 2000).

Limitations of this study include measurement at a single time point in emerging adulthood but assessment of reverse associations should reduce the limitation of this cross-sectional design. Although role transitions were assessed over the past year and substance use was assessed over the past month, suggesting that the transitions preceded substance use, it is plausible that the substance use occurred before the role transitions. Substance use was self-reported. Marijuana use and binge drinking outcomes were dichotomous, limiting the understanding of frequency of substance use. Findings may not generalize to other racial/ethnic groups. The IDEA instrument may not be a perfect measure of individuals' transition-to-adulthood themes but currently is the only scale available to assess this construct. The 24 role transitions in this study may not include all relevant transitions experienced by Hispanic emerging adults that could influence substance use.

Despite these limitations the findings suggest transition-to-adulthood themes and role transitions experienced by emerging adults are meaningful for Hispanics and should be addressed in prevention and intervention programs. Future research should determine what specific mechanisms are making these transitional processes risk factors for substance use. Substance use might represent a maladaptive coping mechanism during a time of uncertainty and change. These determinations could prove critical if tailored prevention programs are to be designed that lead to a decrease in the prevalence of substance use among Hispanic emerging adults.

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Highlights

- About 24% of participants reported marijuana use and 34% reported binge drinking.
- Feeling emerging adulthood was a time to focus on others was a protective factor.
- Becoming engaged and having a baby in emerging adulthood were protective factors.
- Experiencing a breakup, dating someone new or a demotion at work were risk factors.
- Other risk factors included addiction to drugs or alcohol or being arrested.

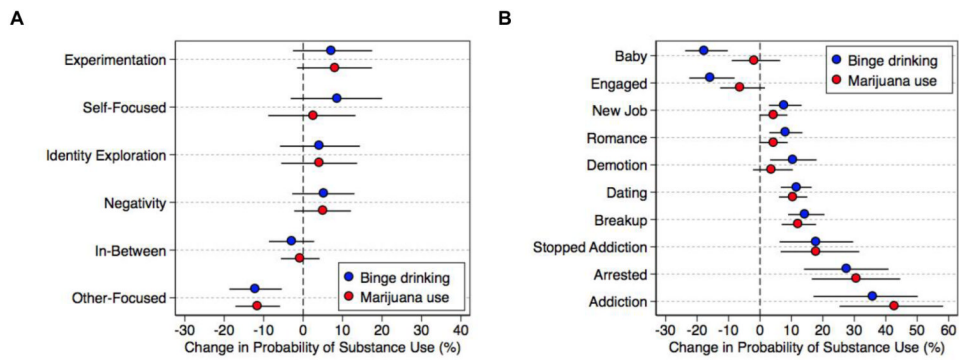


Figure 1. IDEA, role transitions and substance use

(A) shows the difference in predicted probabilities of past-month marijuana use, and binge drinking, when the 10th and 90th percentile IDEA scores are included in computations holding covariates at their mean values. The difference represents the effect of differences in each IDEA subscale on past-month marijuana use, and binge drinking, given the empirical estimates of the logistic regression. An overlapping confidence interval with zero indicates a null result with alpha= .05; and (B) shows the change in predicted probability of past-month marijuana use and binge drinking, with 95% confidence intervals. An overlapping confidence interval with zero indicates a null result with alpha= .002. Estimates were calculated by simulating the first difference in the transition e.g., had a baby from 0 to 1. Each estimate was arrived by the use of 1000 randomly drawn sets of estimates from each respective coefficient covariance matrix with control variables held at their mean values.

Table 1Characteristics of the Sample. ^a

	Mean	95% C.I.	N
Age	21.14	21.12, 21.16	1384
Male	.41	.38, .44	1386
Past 30 day binge drinking	.34	.31, .36	1366
Past 30 day marijuana use	.24	.22, .26	1369
Started classes/education	.65	.63, .69	1345
New dating	.55	.53, .58	1336
Babysit sibling	.52	.50, .55	1343
New job	.47	.45, .50	1344
New romance	.44	.41, .47	1338
Can't find employment	.34	.31, .36	1343
Breakup	.31	.28, .34	1341
Caregiver	.22	.20, .24	1343
Lost job	.20	.18, .22	1343
Demotion	.15	.13, .17	1342
Stopped babysitting	.13	.11, .15	1340
Moved in w/significant	.14	.12, .15	1343
Serious illness	.12	.10, .14	1345
Had a baby	.11	.10, .13	1344
Engaged	.10	.08, .12	1343
Overcame illness	.08	.07, .10	1345
Stopped care giving	.07	.06, .09	1335
Overcame addiction	.05	.04, .06	1335
Arrested	.04	.03, .05	1346
Lost a baby	.04	.03, .05	1342
Married	.04	.03, .05	1341
Drug/alcohol addiction	.03	.02, .04	1342
Divorce	.004	.000, .007	1343
Legal separation	.004	.000, .007	1342

^aNumbers in cells are means, associated 95% confidence intervals, and useful sample size for each concept.