

Emotion Expression and Substance Use in Newly Parenting Adolescents and Young Adults

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Objective: Deficits in emotion expression skills have been associated with alcohol and substance use, but the mechanisms through which these associations occur are not well understood. The current study investigated (a) associations between emotion expression and substance use (i.e., alcohol, cigarettes, and marijuana) in newly parenting adolescents and young adults and (b) whether symptoms of depression and stress mediate these associations in young mothers and fathers. **Methods:** Participants recruited from obstetrics and gynecology clinics completed the Center for Epidemiological Studies-Depression Scale, Perceived Stress Scale, Emotion Expression Scale for Children, and substance use items. **Results:** Path analysis indicated that lower emotion expression at 6 months postpartum was significantly associated with more alcohol and marijuana use at 12 months postpartum for males but not females. Also among males, stress levels at 6 months postpartum partially mediated associations between emotion expression and alcohol and marijuana use at 12 months postpartum. **Conclusions:** Findings suggest that poor emotion expression skills are related to more substance use in young fathers, and levels of stress may partially account for this association. © 2015 Wiley Periodicals, Inc. *J. Clin. Psychol.* 71:684–695, 2015.

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Alcohol and substance use continue to present a widespread problem among adolescents and young adults in the United States. Nationwide, nearly 30% of adolescents report drinking alcohol during the past month and 26% report smoking cigarettes. Daily marijuana use has increased significantly among both adolescents and young adults, with nearly 20% of young adults reporting past month marijuana use (Substance Abuse and Mental Health Services Administration, 2011; Johnston, O'Malley, Bachman, & Schulenberg, 2011). Although the terms *alcohol use* and *substance use* encompass a broad spectrum of behaviors ranging from occasional to more chronic patterns of use, their adverse health outcomes are well documented (Bauman & Phongsavan, 1999) and include risky sexual behavior, mood disorders, interpersonal problems, and academic problems. Given the high rates of alcohol and substance use in adolescents and young adults and the host of psychosocial problems associated with substance use during this developmental stage, elucidating specific mechanisms through which alcohol and substance use occur is imperative.

Understanding factors related to alcohol and substance use is particularly important among adolescents and young adults transitioning to parenthood. The transition to parenthood is often a stressful period of psychological adjustment associated with increased depression, anxiety, and relationship difficulties and changes in self-concept and identity structure (Doss, Rhoades, Stanley, & Markman, 2009; Manzi, Vignoles, & Regalia, 2010; National Institute of Child Health and Human Development, 1999). Adolescent and young adult parents may encounter even greater parenting-related stressors that increase their risk for developing mental health

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problems, including substance use disorders (Hodgkinson, Beers, Southammakosane, & Levin, 2014).

Additionally, the risk of *substance use* developing into *substance use disorders* may be heightened for adolescent and young adult parents because they face substantially elevated stress levels in the context of limited economic and psychosocial resources. Development of substance use disorders among young parents is also concerning because of the negative consequences for the health of their children. Parental substance use disorders have been associated with numerous adverse child development outcomes (e.g., cognitive delays, attention deficit hyperactivity disorder) and deficits in parenting skills (e.g., poor supervision, inconsistent discipline; Barnard & McKeganey, 2004; Chassin, Pitts, Delucia, & Todd, 1999; Mayes & Truman, 2002). Identifying factors associated with alcohol and substance use may therefore have important mental health benefits for young parents and their children.

Emotion expression, an essential component of adaptive emotion regulation, is one factor that might be relevant for understanding etiological pathways of alcohol and substance use among young parents. Emotion expression is defined as the verbal and nonverbal behaviors that communicate emotional experience (Kennedy-Moore & Watson, 2001). It involves both the recognition of internal emotional states and the modulation of responses to the experiential aspects of emotion (Gross & Thompson, 2007). More precisely, emotion expression comprises two closely related capacities: (a) awareness of emotions and (b) willingness to express or communicate emotions (Penza-Clyve & Zeman, 2002).

Although previous research suggests that emotion regulation is an important underlying factor associated with alcohol and substance use (Bonn-Miller, Vujanovic, & Zvolensky, 2008; Fox, Hong, & Sinha, 2008), the mechanisms through which particular emotion regulation skills, such as emotion expression, relate to substance use have not been well investigated, especially among adolescents and young adults. Effective emotion expression skills may be particularly important for adolescents and young adults transitioning to parenthood because the capacity to identify and communicate their emotions may be critical for coping with increased stresses related to parenting (e.g., child rearing, financial strains).

Of the few studies conducted, deficits in emotion expression skills have been associated with alcohol and substance use. For instance, low emotional awareness has been associated with alcohol use in young adults (Bonn-Miller et al., 2008) and alcohol dependence in adults (Fox et al., 2008). Likewise, inhibition of emotion expression (e.g., expressive suppression) has been related to higher frequency of drinking alcohol (Hasking & Oei, 2007). Inhibition of emotion expression has also been associated with smoking initiation (Magar, Phillips, & Hosie, 2008), longer history of smoking, and greater attentional bias to smoking cues in adults (Fucito, Juliano, & Toll, 2010). Overall, findings suggest that deficits in emotion expression capacities are related to alcohol and substance use, but virtually no empirical research has examined how poor emotion expression is associated with substance use.

The *stress vulnerability model*, which proposes that individuals use substances to regulate negative and distressing emotional experience in the absence of more adaptive coping strategies, is one theoretical framework that might explain these associations (Cooper, Russell, Skinner, & Windle, 1992). This model has received considerable support throughout the literature. Regular marijuana users have reported that marijuana alleviates emotional distress and negative mood (Mathew, Wilson, & Tant, 1989; Reilly, Didcott, Swift, & Hall, 1998), and marijuana users high in emotion regulation difficulties are more likely to use marijuana to regulate negative emotion (Bonn-Miller et al., 2008). Similarly, expectancies that smoking will reduce distressing emotional experience have often been endorsed as a reason for smoking (Copeland, Brandon, & Quinn, 1995).

Drawing from the stress vulnerability model, symptoms of depression and stress may function as mediators linking emotion expression to substance use. These negative emotions might mediate this relationship because poor emotion expression has been consistently linked with higher levels of depression and anxiety/stress (McLaughlin, Hatzenbuehler, Mennin, & Nolen-Hoeksema, 2011; Suveg, Hoffman, Zeman, & Thomassin, 2009). In turn, high levels of depression, anxiety, and stress have been strongly associated with initiation and frequency of alcohol, cigarette, and marijuana use (Bonn-Miller et al., 2008; Cheetham, Allen, Yucel, &

Lubman, 2010; Fucito & Juliano, 2009). Examining this meditational model may be particularly pertinent for adolescent and young adult parents because they exhibit significantly higher levels of stress and depression symptoms compared with non-parenting adolescents and older adult parents (Lanzi, Bert, & Jacobs, 2009; Quinlivan, Tan, Steele, & Black, 2004).

Additionally, previous research suggests that the mechanisms linking emotion expression to substance use among adolescents may vary according to gender. Females tend to show higher emotional awareness and greater attention to emotional experience than males (Barrett, Lane, Sechrest, & Schwartz, 2000; Thayer, Rossy, Ruiz-Padial, & Johnsen, 2003), and males tend to exhibit greater reliance on strategies that inhibit emotional expression (Flynn, Hollenstein, & Mackey, 2010). Females are also less likely than males to use substances in response to stress (see Nolen-Hoeksema, 2012); thus different pathways may explain associations between emotion expression and substance use for males and females. Again, this is particularly important to investigate among newly parenting young mothers and fathers because effective emotion expression skills may be critical for managing potential increases in stress or depressive symptoms accompanying parenthood. Deficits in emotion expression may have independent implications for young mothers and young fathers because they may differ in their emotion expression skills and their tendency to resort to less adaptive coping strategies like alcohol or substance use in the context of heightened stress.

Current Study

To address gaps in the literature, the current study investigates (a) associations between emotion expression and substance use (i.e., alcohol, cigarettes, and marijuana) and (b) whether symptoms of depression and stress mediate associations between emotion expression and substance use in newly parenting adolescents and young adults. We examined these mechanisms separately for young females and males because past research suggests independent mechanisms for men and women. Based on previous theory and research, we hypothesized that (a) poor emotion expression will be related to higher depressive symptoms, stress, and substance use and (b) associations between emotion expression and substance use will be mediated by depressive symptoms and stress for males but not for females. To maintain temporality in mediation analysis, we used measures of depression and stress symptoms at 6 months postpartum and substance use at 12 months postpartum.

Methods

Participants

Participants were 380 newly parenting adolescents and young adults (205 females and 175 males). For females, the average age was 18.7 (standard deviation [*SD*] = 1.6 years; ages 14–16 = 9.8%, 17–19 = 54.1%, 20–21 = 36.1%). For males, the average age was 21.3 (*SD* = 4.1 years; ages 14–16 = 2.9%, 17–19 = 36.0%, 20–22 = 28.6%, 23–25 = 21.7%, > 25 = 10.9%). Participants were African American (42.1%), Hispanic (42.4%), White (11.1%), and 4.5% other race/ethnicity. The average number of years of education was 11.8 (*SD* = 1.91) for females and 11.9 (*SD* = 1.89) for males. Average household income for females was \$13497 (*SD* = \$15530), and for males it was \$17439 (*SD* = \$21541). For males, 77 spoke both English and Spanish and seven spoke Spanish only; for females, 72 spoke both English and Spanish and none spoke Spanish only. Regarding parity, 79.0% of females and 75.7% of males were first-time parents.

Procedure

The current study utilizes data obtained at 6 months postpartum and 12 months postpartum from a longitudinal study of young couples (see Kershaw et al., 2013, for further description). Participants were recruited from obstetrics and gynecology clinics in four hospitals in Connecticut between July 2007 and February 2011. Research staff screened 944 potential couples for participation. Of those couples screened, 413 couples were eligible, and 296 (couples) enrolled

in the study (72.2% participation). Participants who enrolled were more likely to be 2 weeks further along in pregnancy at screening compared to those who refused ($p < .05$). Participation did not vary by any other prescreened demographic characteristic (all $p > .05$). At the 6-month follow-up, 397 participants (216 females and 181 males) completed study assessments; at the 12-month follow-up, 380 participants (205 females and 175 males) completed study assessments.

Inclusion criteria are as follows: (a) the pregnant partner is in the second or third trimester of pregnancy at the time of baseline interview; (b) women 14–21 years of age and men at least 14 years of age at time of the interview; (c) both members of the couple report being in a romantic relationship with each other; (d) both report being the biological parents of the unborn baby; (e) both agree to participate in the study; and (f) both are able to speak English or Spanish. For Spanish-speaking participants (seven males), the interview was conducted in Spanish by a Spanish-speaking research assistant, and then back-translated to English by another Spanish-speaking research assistant.

A research staff member obtained written informed consent at baseline. The couples separately completed structured interviews via audio computer-assisted self-interviews. Participation was voluntary and confidential, and the Yale University Human Investigation Committee and institutional review boards at the study clinics approved all procedures. Participants were reimbursed \$25 at each assessment.

Measures

Emotion expression was measured using the Emotion Expression Scale for Children (EESC; Penza-Clive & Zeman, 2002). The EESC comprises 15 self-report items that provide an overall total score for emotion expression capacities and two subscale scores: poor emotional awareness (i.e., “I have feelings that I can’t figure out,” “I often do not know how I am feeling,” and “I often do not know why I am angry”) and expressive reluctance (i.e., “I prefer to keep my feelings to myself,” “It is hard for me to show how I feel about somebody,” and “When I am sad, I try not to show it”). Participants indicate how well each item depicts their emotion expression skills on a 5-point Likert scale ranging from 1 (*not at all true*) to 5 (*extremely true*). Higher scores reflect poorer awareness of emotions and greater reluctance to express emotions. The EESC has been used previously with adolescents (Sim & Zeman 2005, 2006; McGlaughlin et al., 2011) with good reliability, and the construct validity of the scale has been established (Penza-Clive & Zeman, 2002).

In the current study, we used the EESC total score because the emotional awareness and expressive reluctance subscales were highly correlated ($r = 0.87$), suggesting a high degree of overlap. Additionally, exploratory factor analysis of EESC items in the current study suggested a one-factor solution based on the scree plot and eigenvalues. The single factor explained 53.2% of the variance (eigenvalue = 8.51), while the second factor explained only 6.6% of the variance (eigenvalue = 1.1). Internal consistency for the EESC total in our sample was high ($\alpha = 0.94$), and internal consistency did not differ significantly by age.

Depressive symptoms were measured using the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977). For each symptom of depression, participants indicated how often they felt or behaved in the specified way over the past week on a 4-point Likert scale ranging from 0 (*less than 1 day a week*) to 3 (*most of the time [5-7 days a week]*). Five of the original 20 items were excluded because they reflect somatic complaints that also occur during pregnancy and postpartum and can inflate estimates of depression (Milan et al., 2007; Westdahl et al., 2007). These five items included “I did not feel like eating,” “I had trouble keeping my mind on what I was doing,” “I felt that everything I did was an effort,” “My sleep was restless,” and “I could not get ‘going.’” Scores were calculated by summing the responses to the remaining 15 items. Previous studies using these 15 items among pregnant and postpartum samples have reported good reliability (Milan et al., 2007). Internal consistency for this measure in our study was high ($\alpha = 0.85$).

Stress was measured with the Perceived Stress Scale (PSS; Cohen & Williamson, 1983), which comprises 10 items assessing perceived levels of stress (how unpredictable, uncontrollable, and overloaded individuals perceive their lives to be). Participants indicated how often in the past

month they experienced stressful feelings and thoughts (e.g., “nervous and stress, unable to cope with all of the things you had to do, that difficulties were piling up so high that you couldn’t overcome them”). Responses were scored on a 5-point Likert scale ranging from 0 (*never*) to 4 (*very often*). The PSS has demonstrated good internal consistency in both adolescents (Devereaux, Weigel, Ballard-Reisch, Leigh, & Cahoon, 2009) and adults (Cohen & Williamson, 1983). Internal consistency for the current study was good ($\alpha = 0.79$).

Substance use was measured using three items from the Recreational Drug Use Scale (RDUS; Halkitis & Parsons, 2002) pertaining to alcohol, cigarette, and marijuana use. Participants indicated how often they used each substance during the past 3 months on a 5-point Likert scale ranging from 0 (*never*) to 4 (*every day*). Prepregnancy alcohol and substance use was measured with a single item assessing how often participants used each substance in the 3 months prior to pregnancy (obtained at baseline/during pregnancy).

Data Analytic Strategy

Descriptive statistics were first generated to describe the sample, and correlations were computed to examine interrelationships among study variables. To examine the relationship of emotion expression with depression and stress symptoms and substance use, the data were analyzed using path analysis with maximum likelihood estimation in Mplus Version 4.21. Path analysis simultaneously estimates multiple regression equations to examine dependencies among variables. Our models were constructed based on a priori hypotheses and stratified by gender because we hypothesized that emotion expression may relate independently to alcohol and substance use in males and females. Path models examined not only the direct effects of emotion expression on subsequent alcohol, cigarette, and marijuana use but also the indirect effects of emotion expression via depression and stress. To maintain temporality in path models, 6 months postpartum stress and depression symptoms, 6 months postpartum emotion expression, and 12 months postpartum alcohol and substance use measures were used. Models controlled for both prepregnancy substance use and demographic variables (i.e., age, race, education, parity). Models were constructed separately for males and females, thus controlling for interdependence of data was not necessary.

We also included correlations between symptoms of depression and stress and between the error terms of our outcome variables (12 months postpartum alcohol, cigarette, and marijuana use) in each model. A complete case analysis was conducted because the percentage of missing data was low (< 9% for males, < 6% for female; see Arbuckle, 1996, for estimation procedures with incomplete data).

Results

Descriptive statistics for study variables for males and females are presented in Table 1. Males reported significantly poorer emotion expression skills than females ($t = 2.80, p < .05$). Males also reported significantly higher alcohol ($t = 4.56, p < .01$), marijuana, ($t = 4.53, p < .01$), and cigarette use ($t = 2.17, p < .05$) compared to females. Intercorrelations among study variables are presented for males and females in Table 2. Poorer emotion expression was significantly associated with higher use of alcohol ($r = .24, p < .01$), marijuana ($r = .25, p < .01$), and cigarettes ($r = .19, p < .05$) among males, but was not significantly related to alcohol and substance use among females.

Results of the path analysis examining associations between 6 months postpartum emotion expression, stress, and depressive symptoms and 12 months postpartum substance use are presented in Figures 1A and 1B. For males (Figure 1A), emotion expression was positively associated with both alcohol ($\beta = .19, p < .05$) and marijuana use ($\beta = .18, p < .05$), controlling for prepregnancy substance use. Perceived stress at 6 months postpartum was also significantly related to alcohol use at 12 months ($\beta = .25, p < .05$) and marijuana use at 12 months ($\beta = .20, p < .05$).

Two indirect effects were found among males. A significant indirect effect was found from emotion expression to alcohol use via stress ($\beta = .10, p < .05$), and from emotional expression

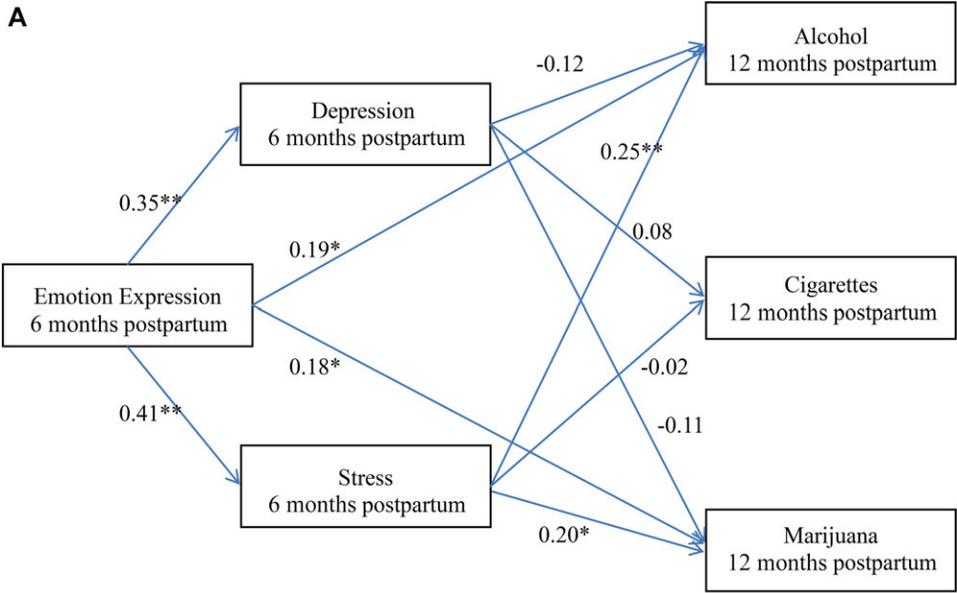


Figure 1A. Path analysis for males examining whether depression and perceived stress symptoms mediate associations between emotion expression at 6 months postpartum and substance use at 12 months postpartum, controlling for prepregnancy substance use and intercorrelations of depression and stress.

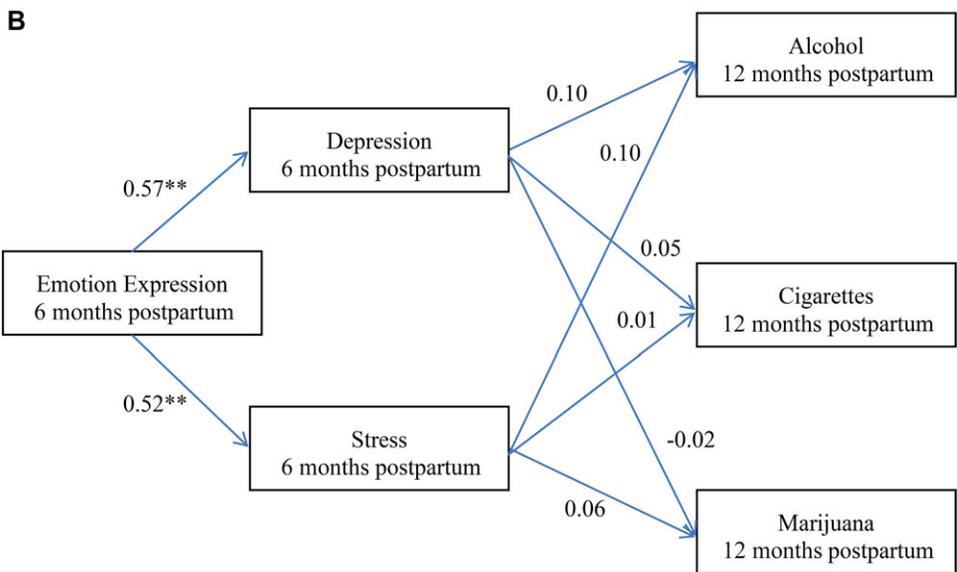


Figure 1B. Path analysis for females examining whether depression and perceived stress symptoms mediate associations between emotion expression at 6 months postpartum and substance use at 12 months postpartum, controlling for prepregnancy substance use and intercorrelations of depression and stress.

Table 1
Participant Depression, Perceived Stress, Emotion Expression, and Substance Use by Gender

	Females (N = 205)	Males (N = 175)
6 months postpartum		
Depression	9.2 ± 7.80	9.3 ± 7.03
Perceived stress	13.9 ± 6.73	14.7 ± 6.75
Emotion expression*	33.4 ± 12.41	35.7 ± 14.19
12-months postpartum		
Alcohol use in last 3 months**	.66 ± .82	1.06 ± .97
Marijuana use in last 3 months**	.26 ± 1.43	.67 ± 1.13
Cigarettes use in last 3 months*	.93 ± .69	1.21 ± 1.48

Note. Gender comparisons conducted with paired t tests.

* $p < 0.05$. ** $p < 0.01$.

Table 2
Correlation Matrix for Emotion Expression, Substance Use, Depression, and Perceived Stress

	1	2	3	4	5	6
<i>Females</i>						
1. Depression 6 months postpartum	–					
2. Perceived stress 6 months postpartum	.72**	–				
3. Emotion expression 6 months postpartum	.57**	.52**	–			
4. Alcohol use 12 months postpartum	.11	.13	.07	–		
5. Marijuana use 12 months postpartum	.04	.07	.05	.32**	–	
6. Cigarette use 12 months postpartum	.05	.06	.05	.20**	.28**	–
<i>Males</i>						
1. Depression 6 months postpartum	–					
2. Perceived stress 6 months postpartum	.70**	–				
3. Emotion expression 6 months postpartum	.35**	.41**	–			
4. Alcohol use 12 months postpartum	.14	.24**	.24**	–		
5. Marijuana use 12 months postpartum	.12	.25**	.25**	.28**	–	
6. Cigarette use 12 months postpartum	.13	.12	.19*	.22**	.23**	–

* $p < 0.05$. ** $p < 0.01$.

to marijuana use via stress ($\beta = .08, p < .05$). Results suggest that stress partially mediated the relationship between emotion expression and alcohol and marijuana use. No significant indirect effects were found for depressive symptoms in males.

For females (Figure 1B), no significant associations were found between emotion expression at 6 months postpartum and alcohol, cigarette, or marijuana use at 12 months postpartum.

Poorer emotion expression skills were significantly related to higher symptoms of depression ($\beta = .57, p < .01$) and stress ($\beta = .52, p < .01$), but no significant indirect effects were found.

Model fit indices indicated adequate fit to the study data. For females, the goodness of fit test indicated that the implied covariance structure was not significantly different from the actual observed covariance structure of the sample ($\chi^2 = 11.50; p = .48$). Root mean square error of approximation (RMSEA) showed good model fit (RMSEA = .00; 90% confidence interval [CI] [0.000, 0.069]). For males, the goodness of fit test also indicated that the covariance structures between the hypothesized and observed covariance structures were not significantly different ($\chi^2 = 10.34; p = .59$). The RMSEA showed good model fit (RMSEA = .00; 90% CI [0.000, 0.068]).

Discussion

The current study provides further insight into factors associated with substance use among adolescents and young adults transitioning into parenthood. Findings indicate that poor emotion expression skills are related to more frequent substance use among males and that perceived stress may operate as a mediator of these associations.

Newly parenting young females reported significantly greater emotion expression capacities than newly parenting males. This is consistent with previous research in adults and supports the notion that gender differences in emotion expression may emerge earlier in the lifespan (McClure, 2000) and remain fairly stable through adulthood (Barrett et al., 2000). Several explanations might account for higher levels of emotional expression in females. It is possible that females are simply “hard-wired” to be more emotionally aware and expressive than males, possessing a greater sensitivity and capacity to recognize, understand, and communicate emotion information (Barrett et al., 2000). Alternatively, gender variations in emotion expression may be a function of socialization processes in which girls are encouraged to be more emotionally sensitive and expressive, whereas boys are encouraged to inhibit expression of emotion (e.g., Brody & Hall, 1993; Tamres, Janicki, & Hegelson, 2002).

Poor emotion expression skills were associated with greater frequency of subsequent alcohol and marijuana use in newly parenting males but not females. It is possible that deficits in emotion expression are associated with a heightened vulnerability for substance use. Emotion expression has been identified as a vital component of adaptive emotion regulation (Penza-Clyve & Zeman, 2002). If males are less aware of their emotions and less communicative about them, then they may have more limited access to adaptive emotion regulation strategies, resorting to maladaptive strategies such as substance use. Conversely, if substance use has been chronic, then low emotion expression may be a consequence of “emotional numbing” resulting from substance use over time. However, because emotion expression predicted substance use 6 months later, while controlling for prepregnancy substance use, it is unlikely that substance use contributed to lower emotion expression skills in our study. Longitudinal research spanning longer time periods would help establish temporality between emotion expression and substance use more firmly among young parents.

Low emotion expression was associated with higher depression and stress in both males and females, but stress significantly mediated associations between emotion expression and subsequent alcohol and marijuana use only in males. This suggests that stress may be one mechanism through which poor emotion expression is related to higher alcohol and marijuana use for newly parenting young fathers. Although more frequent substance use can increase stress levels, our models controlled for prepregnancy substance use and assessed stress 6 months prior to assessing substance use; thus our results more likely reflect that higher stress levels pose risk for greater alcohol and marijuana use. Congruent with the stress–vulnerability theory (Cooper et al., 1992), young fathers may use substances to cope with stress because their capacity to recognize and communicate emotions is limited. Future research would benefit from assessing more directly the motives or reasons for substance use, including coping-oriented motives, among adolescent and young adult parents.

We find it interesting that depressive symptoms did not mediate associations between emotion expression and subsequent substance use among young males transitioning to fatherhood. Our

findings may differ from research showing that negative emotion is related to substance use because of conceptual distinctions between the constructs of negative emotion and depression. Although there is considerable overlap between depressive symptoms and negative emotion (Clark & Watson, 1991; Watson, 2009), it is possible that when the unique aspects of depression are parceled out from negative emotion more broadly, a different pattern of associations emerges in which depressive symptoms are not related to substance use. These findings underscore the importance of examining highly related constructs like depression and stress as distinct dimensions of broader experience (e.g., negative emotion). Additionally, our sample may have lacked sufficient variability in depressive symptoms to detect significant relationships, or these associations may depend on severity of depression. It is also possible that for young fathers facing the increased demands and responsibilities of parenthood, feeling stressed and overwhelmed is a more salient experience than feeling sad or depressed.

Perceived stress did not mediate associations between emotion expression and cigarette use. Though stress has been shown to predict smoking behavior in some studies, finer grained analyses suggest that these associations depend on type of stressor (Perkins, Karelitz, Conklin, Sayette, & Giedgowd, 2010). Because the Perceived Stress Scale measures self-reported, general psychological distress, the influence of type or severity of stressor was not accounted for. Additionally, some research suggests that although physiological indices of stress reactivity (e.g., heart rate) are related to smoking behavior among adolescents, self-reports of perceived stress symptoms are not (Evans et al., 2012). The pharmacologic effects of nicotine could also partially explain results (Benowitz, 1996); because nicotine is highly addictive, smoking behavior may be triggered more often in response to withdrawal symptoms (e.g., anxiety, irritability), rather than perceived stress more generally. Lastly, drawing from research on expectancies of alcohol and substance use, young mothers and fathers who have strong expectancies that cigarettes will alleviate emotional distress may be more inclined to engage in smoking behavior to attenuate stress (Copeland et al., 1995; Kassel et al., 2007). Future research should assess whether expectancies of the effects of substance use affect associations between emotion expression, stress, and substance use.

Clinical Implications

Considering a range of etiological pathways to substance use that account for individual differences and underlying mechanisms is essential for developing more effective prevention interventions. Current findings support the possibility of gender specific relationships between emotion expression and substance use in young males and females and suggest that developing emotion expression skills in conjunction with healthy stress management may be highly important, particularly for newly parenting young males. Young fathers are at high risk for stress stemming from multiple sources, including parental competency issues, partner relationship problems, and low social support (Florsheim et al., 2003; Marsiglio & Cohan, 1997). Building effective emotion expression skills in young fathers may be particularly helpful for managing these interpersonally related stressors and may help reduce tendencies to use substances in the context of stress. As parental substance use disorders have been associated with numerous adverse child development outcomes (Finnegan & Kandall, 2008; Thakur et al., 2013; Twomey, 2007), cultivating skills to prevent continuation of alcohol and substance use and the development of substance use disorders is critical for young fathers transitioning into parenthood.

Limitations

Our study relied exclusively on self-report measures; thus participant responses may have been influenced by self-report biases (e.g., young mothers may be motivated to underreport substance use). Incorporating observational and biobehavioral measures of emotion expression and stress (e.g., physiological indices) would strengthen future research. Including more rigorous measures of substance use and implementing more extensive longitudinal designs may further establish temporality and causality. Because we did not measure quantity of substance used, we could not distinguish between more or less severe patterns or episodes of alcohol and substance use.

Assessing quantity of substance use would provide a more complete picture of substance use patterns.

Additionally, our sample was highly specific, comprising newly parenting adolescents and young adults who had chosen to stay together as couples; therefore, study findings may not generalize to broader populations. Examining associations between emotion expression, negative emotion, and substance use disorders in clinical populations of adolescents and young adults may also be useful.

Finally, different findings for males and females could be related to the higher frequency of substance use among males in our sample. Young females in our study may have reduced (or abstained from) alcohol and other substances more than males due to factors related to motherhood (e.g., breastfeeding). However, breastfeeding rates at and beyond 6 months in our study were low (Sipsma et al., 2013), suggesting that lower substance use among females was not likely related to concerns about the effects of these substances on breastfeeding.

Conclusion

The current work sheds further light on the particular mechanisms through which alcohol and substance use occurs in young parents as well as potential risk factors for developing substance use disorders. Findings indicate that newly parenting young males and females differ in the ways that emotion expression and stress relate to alcohol and substance use. Low emotion expression skills were linked with alcohol and substance use in males alone, suggesting that improving emotion expression skills may be particularly beneficial for adolescent and young adult fathers and may buffer against alcohol and substance use. Also, perceived stress levels may be an important underlying mechanism linking emotion expression to alcohol and marijuana use for young males. Interventions for prevention of alcohol and substance use disorders may be enhanced by incorporating skills training on emotion expression (i.e., emotional awareness and communication of emotions) as well as positive strategies for coping with stress.

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