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ROLE STRAIN AND ILLICIT DRUG USE: THE MODERATING INFLUENCE OF COMMITMENT TO CONVENTIONAL VALUES

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The hypothesized relationships between strain associated with marital/parental/single roles and illicit drug use and commitment to conventionality as a moderating variable of the role strain–drug use relationship were estimated using white Anglo respondents who were interviewed as young adults. Multiple regression analyses indicate that individuals who are married/in long-term relationships and who have children living with them are least likely to use illicit drugs, whereas those who are single and have no children living with them are most likely to use drugs. Moreover, individuals who experience strain associated with marriage, parenthood, or single status are more likely to use illicit drugs only when they are committed to conventional values. The moderating influences of commitment to conventionality are consistent with the contention that individuals who experience role strain and are simultaneously committed to conventionality may find failure in valued social roles more distressing and that use of drugs may serve as a private and less disruptive stress-reduction mechanism.

Studies on drug use among young adults have focused primarily on the impact of adopting adult roles on the initiation, continuation, and escalation of drug use (Bachman, Wadsworth, O'Malley, Johnston, & Schulenberg, 1997; Esbensen & Elliott, 1994; Farrington & West, 1995; Yamaguchi & Kandel, 1985a, 1985b). Relatively few studies have devoted much attention to the influences of the quality of adult roles or the subjective feelings associated with role performances on drug

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use. Although we are increasingly certain that those who have adopted adult conventional roles are less likely to use illicit drugs (Bachman et al.; Esbensen & Elliott, 1994), we know quite little regarding whether individuals' subjective evaluation of these roles and concomitant self-feelings are related to drug use as well: Does dissatisfaction with one's marital relationships contribute to the decision to use illicit drugs? Are happy parents less likely to be involved in drug use than are unhappy parents? Do satisfied singles differ in their use of illicit drugs from dissatisfied singles?

These questions may be addressed partially by drawing upon theories in the stress-deviance literature, where unsuccessful fulfillment of adult roles has been regarded as experiences of role strain (Pearlin,1989; Thoits, 1995; Wheaton, 1990), and illicit drug use may represent a deviant response to stress (Agnew, 1992; Kaplan, 1986, 1996). However, the stress-deviance literature provides little direct empirical evidence regarding the relationships between adult role strain, especially strain associated with marital/parental/single roles, and young adult illicit drug use. Limited studies on general or other specific strains and illicit drug use have produced equivocal findings. Some reported positive association between experiences of strains and illegal drug use (Agnew & White,1992; Crutchfield & Gove,1984; Hoffmann & Su,1997). Others have shown that illicit drug use is unrelated to stress and/or strain (Akers & Cochran,1985; McGee,1992; Perodeau, King, & Ostoj, 1992). Considerations of methodological variability apart, these inconsistencies suggest the need to examine conditional circumstances under which the relationships between role strain and illegal drug use will be observed (Timmer, Veroff, & Colten,1985).

In this study, we examine the main effect relationship between experiences of strains pertaining to marital/parental/single roles and young adult illicit drug use. Drawing upon literature on deviance, we also examine commitment to conventionality as a moderating mechanism of the role strain – drug use relationship. We focus specifically on commitment to conventionality as a moderating variable since we expect that conventional individuals are more likely to have greater investment in the success of role functioning. Thus, they may be more vulnerable to stress associated with role strains and may use drugs in private to reduce distress and meanwhile to maintain outward conventionality. Two specific research hypotheses are tested in this study. (1) Individuals exposed to role strains will be more likely to use illicit drugs than those who are not exposed to role strains. (2) Individuals who experience role strains are more likely to use illicit drugs when they are simultaneously committed to conventionality than those who are not as committed to conventionality. As observed in other studies, we expect that individuals with more role responsibilities (i.e., married/in long-term relationships and a parent) are less likely to use illicit drugs than those with fewer role responsibilities (e.g., without children and not married).

Role Strain and Illicit Drug Use

Social Definitions of Role Strain

Role strain has been identified in a number of ways in the stress - deviance literature. According to a leading definition in mental health, strain results from lack of resources to deal with demanding social situations and/or circumstances (Lazarus & Folkman,1984). In other words, strain occurs when demands of social tasks exceed the resources that individuals have to adequately fulfil these tasks (Wheaton,1986, 1990). In accordance with this definition, individuals who are in marital relationships or who have children may find social responsibilities as a spouse or a parent too demanding. Thus failure to carry out these role responsibilities satisfactorily may lead to feelings of loss in self-efficacy, and hence experiences of distress (Pearlin & Schooler,1978). Similarly, singles may find it hard to fulfil social requirements imposed upon them as singles and feel distressed because of failure to perform role requirements.

Experts in the area of self and social identity have also provided definition for role strain. Strain is perceived here as discrepancy or in-congruence between perceived social cues or feedback, and self-identified meanings/criteria (Burke, 1991; Kaplan, 1986; Rosenberg, 1979; Stryker, 1980; Thoits, 1994). Although disagreement exists as to the content of self-identified meanings/criteria, one argument goes that distress occurs when individuals fail to reduce discrepancy between perceived and desired behaviors/characteristics (Kaplan, 1986, 1996). Individuals thus may feel distressed when they fail to achieve socially desired traits such as being a good spouse or a responsible parent, and/or unable to behave in accordance with socially-approved standards and expectations (Thoits, 1994). The socially-approved standards may include performing adequately the desired role functions (Rosenberg, 1979; Stryker, 1980; Thoits, 1994).

Another definition of strain is defined by Agnew (1992) in his general strain theory of crime and delinquency. According to Agnew (1992), strain occurs when an individual (1) fails to attain desired goals, (2) experiences presence of negative stimuli, and/or (3) absence of positive stimuli. Specific to marital role, individuals may experience role strain when they fail to attain such desired goals as having a satisfactory marital relationship, or having such negative stimuli as an abusive relationship, or lack of positive stimuli such as lacking a supportive spouse or partner.

Despite the differences, all three definitions of strain posit that strain occurs in relation to social roles, and that unsatisfactory performances/experiences of role responsibilities induce feelings of distress.

Role Strain, Commitment to Conventionality, and Illicit Drug Use

From the perspectives of stress and coping theories, illicit drug use can be perceived as an adaptive coping response to stress. The self-medication argument hypothesizes that individuals use substances to reduce distress (Crutchfield & Gove,

1984; Wills & Shiffman, 1985). Since drugs are likely to reduce tension, create relaxation, and change/distort self-perceptions (Weil, 1996), individuals experiencing role stress may use drugs to reduce negative feelings induced by dissatisfaction with social role functioning (Wills & Shiffman,1985).

Use of illicit drugs to cope with stress can also be hypothesized from self and identity theories. According to Kaplan (1996), role strain represents self-threatening circumstances whereby individuals are prevented from conforming to what they perceive as legitimate expectations of themselves by others or fail to evoke desirable responses from others with whom they interact. Thoits (1991, 1994) also pointed out that role-identities are key sources of self-conception and self-evaluation. Individuals who experience threats to self-conception or role identities are likely to resort to social responses that remove or forestall negative self-conception or prevent self-devaluation (Kaplan; Thoits). Further, self-protective/self-enhancing mechanisms may range from those of socially acceptable to those of socially condemned/deviant (Kaplan). Illicit drug use can thus be perceived as one of self-protective/self-enhancing responses that individuals may adopt in reducing or forestalling such self-threatening circumstances as experiences of role strain (Kaplan, 1995).

Similar arguments regarding the relationships between strain and deviant adaptations in general, and illicit drug use in particular have also been made by other theorists including anomie and more recently, general strain theorists (see Agnew, 1992).

Empirical studies have documented some support for increased use of substances associated with stress. For instance, abuse of alcohol and other drugs has been identified as a consequence of stress associated with marital disruption (Horwitz, White, & Howell-White, 1996). Use of psychoactive prescription and nonprescription drugs were associated with a number of disadvantaged conditions including experiences of higher stress (Graham, Carver, & Brett, 1995; Svarstad, 1983).

Criminology and deviance literatures have long documented that individuals who are attached to the conventional social order are likely to comply with socially prescribed norms and expectations (Hirschi, 1969; Le Blanc, 1997; Reckless, 1961; Shoemaker, 1996). Such individuals have internalized conventional social standards and may find it valuable to achieve in accordance with prescribed norms of the traditional society. Subscription to conventional values thus serves as a social constraint upon individuals who may otherwise deviate from societal demands and obligations (Gottfredson & Hirschi,1990; Hirschi,1969; Le Blanc,1997; Reckless,1961). As a socially proscribed behavior, illicit drug use departs from the standards and norms that discourage substance use. In addition to legal aspect, drug use has been associated with likely adversities, including possible damages,

temporary or permanent, to one's cognitive, perceptional, and physical abilities. For such reasons, use of illicit drugs, when discovered, is likely to generate social punishment including legal sanctions and informal social reactions. Thus individuals who accept the importance of conventional world may be unwilling to risk trespassing social boundaries by engaging in societal disapproved acts such as use of illicit drugs.

Studies have yielded results in support of the argument that individuals who are committed to conformity are less likely to engage in deviant behaviors including use of illicit drugs (Free, 1994; Pawlak & DeFronzo,1993; Rouse & Eve,1991). Illegal substance use as well as other non-conforming behaviors are related to lack of attachment to conventional values, especially in adolescent and young-adult populations (Esbensen & Huizinga,1993; Marcos & Bahr,1988; Liu & Kaplan, 1999).

COMMITMENT TO CONVENTIONALITY AS A MODERATOR OF STRAIN - DRUG USE RELATIONSHIP

As hypothesized, the stress literature suggests that individuals under role strain are likely to use drugs to cope with stress (Kaplan, 1996; Wills & Shiffman, 1985). The deviance literature has indicated that individuals committed to conventional values are less likely to use drugs (Free 1994; Hirschi 1969; Pawlak & DeFronzo, 1993; Rouse & Eve, 1991). Neither the stress nor the deviance literatures have explicitly indicated what individuals may react when they experience role strain but are simultaneously committed to conventional standards. Do such individuals have greater or lesser tendency to use drugs to deal with stress?

Hypothetically, three circumstances may occur with regard to commitment to conventionality as a moderator of the relationship between role strain and illicit drug use. (1) Commitment to conventional values does not moderate the relationship between role strain and illicit drug use. In other words, individuals who experience role strain are likely to turn to drugs regardless of whether or not they are committed to conventional values. Empirically, then, we would observe a positive main effect of role strain on illicit drug use, and an inverse main effect of conventionality on report of illicit drug use. However, there is no interactive effect of role strain and conventionality such that the cross-product term between role strain and commitment to conventionality is not significantly related to reports of illicit drug use. (2) Commitment to conventionality moderates the relationship between role strain and illicit drug use. Thus, individuals who are exposed to role strain are less likely to turn to drugs when they are committed to conventional values. In other words, conventionality works to constrain individuals from engaging in such deviant activities as use of illicit drugs even when individuals are experiencing role strain. If this argument holds, empirically, we would observe a positive main effect of role strain on illicit drug use, an inverse main effect of conventionality on drug use, and an inverse interactive effect of role strain and conventionality on drug use. (3)

Commitment to conventionality also moderates the relationship between role strain and drug use. The moderating influence, however, differs from the second hypothesis that individuals experiencing role strain but committed to conventionality are *more* likely to turn to drug use to cope with stress. In other words, conventionality increases the likelihood of individuals under role stress to use illicit drugs. Empirically, we would observe similar main effects as the second hypothesized circumstance but a positive interactive effect of role strain and conventionality on illicit drug use.

We anticipate that the third hypothesized circumstance is most likely to occur. This is in consideration of the possible outcomes introduced by commitment to conventionality on (1) the experiences of distress and (2) the use of coping response to stress. First, we expect that individuals who are committed to conventionality may find role strain more distressing than those who are not as committed to conventionality. Individuals who are socialized to value the importance of conventional standards are more likely to find success in fulfilling social requirements to be a higher priority. Thus, to the extent that they are incapable of fulfilling the expectations, they may experience greater distress or lower self-efficacy associated with inability to fulfil their valued roles. In contrast, failure to fulfil conventional roles for individuals who do not value conventional standards may be less distressing and thus less likely to have the need for stress-reduction mechanisms.

These contentions are consistent with arguments proposed by stress theorists regarding the meanings/values of social roles and role stress, and the implications of these meanings/values for individuals' experiences of distress. Simon (1992) focused on commitment to parental role and enhanced distress associated with role failure, especially for committed fathers. Thoits (1991) has proposed that salience of role identity may increase the distress associated with change of that particular role identity. Finally, Wheaton (1990) has documented the importance of interaction between the meanings of role stress (role history) and role change on individuals' psychological health. The importance of values/meanings of social roles is not new in the stress literature. However, previous researchers have not tested how general commitment to normative standards may moderate the effect of family role stress on illicit drug use.

In addition to the differential experiences of distress associated with failure to fulfil role requirements, commitment to conventionality may also influence patterns of social responses that individuals adopt to reduce distress. For those who feel strained but are simultaneously committed to conventionality, the choice of alternative stress-reduction mechanisms may be limited. This situation is quite similar to the dilemma described by Kaplan (1986) as facing individuals who experience stressful self-rejecting circumstances but are meanwhile committed to the normative standards of the conventional world. On the one hand, individuals may wish to disconnect themselves from the values of the conventional network that bring them the distress. On the other hand, however, they may find it difficult to turn away from such sources since they are committed to these networks.

Among the variety of responses individuals make when they are exposed to marital/quasi-marital strains, persons may simply choose to dissociate themselves from partners by ending the relationships. They may reduce the stress by being abusive toward partners/spouses. For stressed parents with children living with them, the alternatives may include being violent with the companions/spouses or children, or ignoring or abandoning them. Strained singles could stop dating, retreat themselves from social networks, or act violently toward dating partners. Of course, individuals may also resort to less drastic coping mechanisms, such as by seeking professional help and/or medical treatment to reduce the distress. All of these responses promise a temporary solution to their problems. However, the eventual choice of a particular solution depends upon how appropriate individuals perceive it to be and whether or not they perceive it to be less disruptive to the social order to which they are committed. For those who are bound to the conventional order, and who regard it as important to abide by conventional rules, none of these alternatives may be ideal. Ending a relationship can be quite disruptive and unconventional. Being violent is inappropriate. Going to a psychiatrist involves revealing one's private life. Abandoning children would generate strong social stigma. Stopping dating or withdrawing from social life is not an ideal choice, especially for people who subscribe to the importance of marriage and relationships. Thus individuals who are experiencing role strain and who are simultaneously committed to conventional standards may perceive drugs as a possible way out. With their chemical contents, drugs promise to change moods, alter/distort perceptions, and reduce psychological distress associated with inability to deal with taxing situations. Individuals thus may find it unnecessary to choose such disruptive and/or publicly visible responses as using violence, getting medical help, ending relationships that are valued according to the standards of conventional society, or exiting from socially prescribed dating relationships. In a word, drug use may serve as a private and less disruptive solution to life circumstances in which the person feels trapped.

METHOD

SAMPLE

The hypothesized relationships are tested using data provided by respondents who were interviewed as young adults (mostly in their twenties). The original target sample is a random half of all 7th grade students (N=9,335) who attended public junior-senior high schools in the Houston Independent School District in 1971. Approximately eighty-three percent of the target sample (n=7,727) responded to the initial self-administered questionnaire and among them, approximately sixty-six percent (n=5,097) were later successfully interviewed face-to-face in the 1980s (as young adults). Although the data used for the current analysis were mainly cross-sectional (i.e., with concurrent measures), some variables that were controlled

as common antecedents were measured at an earlier point in time (during adolescence).

For the current purpose, we limited our analyses to respondents who have self-identified as non-Hispanic whites (n=3,107), for whom the completion rate is slightly higher (approximately 70%) than the overall rate of approximately 66%. The numbers in the other racial/ethnic subgroups were too small to permit estimation of our models.

In addition, decisions were made in selecting respondents who reported experiencing role strain of current interest as young adults: (1) Strain related to being a spouse for individuals who are married/in long-term relationships (Spousal Strain); (2) Strain related to being a parent for individuals who have children living with them (Parental Strain); and (3) strain associated with being a single, not married (Single Strain). Three subgroups were thus identified: (a) respondents who are married/in long-term relationships and who have children living with them (n=836, for this group, both spousal and parental strains are examined); (b) respondents who are married/in long-term relationships and who do not have children living with them (n=820, only spousal strain is relevant); and (c) respondents who are not married nor in long-term relationships and who do not have children living with them (n=1,160, single strain is examined for this group). Respondents who have children living with them but are not married nor in long-term relationships were excluded due to inadequate number of cases (n=94).

VARIABLES

The independent variables, role strain, are measured with specific reference to marital, parental, and single roles. We operationalize role strain in such a way that they reflect individuals' psychological states or feelings of strain associated with absence of satisfactory role relationships (Wheaton, 1986, 1990), failure to realize ideal/desired role demands/expectations (Kaplan, 1986, 1996), or various experiences of undesired circumstances encountered in one's social roles (Agnew, 1992). While generally consistent with prior literature, our measurement of strain is perhaps more proximate to strain construct, i.e., one's feelings of strain, than actual reports of stressful events or experiences.

Spousal strain is measured by an index of 6 items that describe feelings regarding marital or long-term relationships with partners. The six items include responses to the question "When you think of all the pleasures and problems that go into daily life with your husband/wife/partner, how often do you feel (a) dissatisfied? (b) unsure? (c) bored? (d) angry? (e) bothered/upset? and (f) worried? The responses to these questions range from 'often,' 'sometimes,' to 'hardly ever or never.' The items are coded with higher scores indicating more dissatisfaction with marital spouse or long-term partners. The index has an alpha reliability coefficient of .81.

Parental strain is similarly measured with an index of 5 items. The items are described with specific reference to the role of being a parent. The first three questions are responses to the questions "How often do they feel (a) worried (b) unhappy (c) unsure when you think of your experiences as a parent?" The responses to these questions range from 'often,' 'sometimes,' to 'hardly ever or never.' The other two questions deal with how often they feel their problems as a parent are (d) on their mind and (e) in comparison with other parents with similarly aged children. The response to the first question ranges from having 'a good part of the time' to 'almost never' and to the second question includes 'having more problems,' 'about the same' and 'having fewer problems.' The items are coded with higher scores indicating greater parental strain. The items are correlated with an alpha reliability coefficient of .62[1].

Single strain is measured similarly to spouse strain with an index of 6 items. The questions describes the situations or circumstances surrounding individuals in single status (not married nor in long-term relations), that is, 'when you think of your daily life as single, how often do you feel (a) worried? (b) unhappy? (c) bored? (d) lonely? (e) unsure? and (f) ashamed?' The responses to these questions include 'often', 'sometimes', or 'hardly ever or never'. The items are coded with higher scores reflecting greater experiences of single strain. The internal consistency coefficient is .80.

The dependent variable, illicit drug use, is measured by an index of two items that include self-reported affirmative response to the involvement in (1) marijuana and (2) any illicit drugs other than marijuana[2]. The index scores range from '0' to '2' with '0' indicating use of neither marijuana nor any other illicit drugs and '2' indicating use of both marijuana and other illicit drugs. The internal consistency coefficient is .69.

The moderating variable, commitment to conventional values, is measured simultaneously with role strain. Consistent with prior literature (Gottfredson & Hirschi,1990; Hirschi, 1969), we conceptualize Conventionality as one's commitment or bonding to conventional social values and institutions (e.g., marriage). Those who deem conventional values and institutions as important are likely to abide by conventional social norms. Thus, the measure of conventionality consists of an additive score based on four items that reflect conventional values that individuals regard as important in life: education, patriotism, church/religion, and marriage. Those who regard all of these things as important are assigned the highest score and are regarded as most committed to conventional order. Those who do not regard any of these things as important are treated as the least conventional. Like most empirical measures, we recognize that such operationalization is imperfect. For instance, certain unconventional groups might deem a particular conventional institution as important (e.g., organized crime

families have shown high commitment to marriages). However, such cases tend to be relatively extreme and thus might be quite rare.

We do not compute the internal consistency coefficient for this measure because we believe that in such a diverse country as the U.S., individuals may hold quite different values in life but still be conventional. Some regard education as important. Others deem good marriages as valuable. Still others value community service. To the extent that they hold one thing as important, regardless of which one, they are equally committed to conventional values. Yet, one's list of valued things may not correspond to that of another person. Thus, inter-item correlations do not reflect the consistency of this measure.

In any case, we examined the construct validity of this measure by correlating the index with a number of theoretical measures hypothesized to be related to commitment to conventionality. In general, the index is positively related to all conventional achievements (e.g., high education attainment, being married) and inversely related to unconventional/deviant outcomes (e.g., reports of drug use, and other deviant activities). These results suggest that this measure of conventionality has high construct validity.

Three interactive terms were constructed by multiplying role strain measures by commitment to conventionality. The interactive terms include spousal strain by conventionality (SPS x CTC), parental strain by conventionality (PAS x CTC), and single strain by conventionality (SGS x CTC). For spousal strain, interactive terms were constructed for persons with and without children respectively.

A number of common antecedent variables are derived mostly from the adolescent survey. We controlled for adolescent illicit drug use since those who have used drugs during adolescence are more likely to continue illicit drug use. The index of drug use consists of two items that include use of marijuana and other narcotic drugs within a month prior to the study. Higher scores indicate use of both marijuana and other narcotic drugs.

We controlled on adolescent antisocial behavior since both drug use and role strain may be common consequences of a preexisting antisocial tendency. Antisocial behavior is measured by self-reports of engaging in a number of socially disapproved behaviors including use of violence, theft, vandalism and so on. Higher values indicate greater involvement in antisocial activities.

We also controlled on respondents' socio-demographic characteristics including current education level, gender, and timing of the interviews. Educational attainment is measured by respondents' years of schooling at the time of adult interview and it ranges from '1' indicating no formal schooling to '11' for post-graduate degree. Gender is coded with males given the value of '1' and females as '0.' The timing of the interviews is coded with higher scores indicating more recent interviews.

ANALYSIS

We used multiple regression to estimate the relationships between role strain and illicit drug use and conditional influences of commitment to conventional values controlling for the hypothesized common antecedent variables. We analyze, in turn, the main effects of role strain and commitment to conventional values on illicit drug use among young adults, and the moderating effects of commitment to conventional values on the strain - drug use relationship. We examine, in turn, spousal, parental and single strains, and estimate experience of spousal strain separately for respondents with and without children.

RESULTS

The results of the regression analyses are presented in Table 1. The models are estimated for three subgroups of subjects. That is, (1) subjects who are married/in long-term relationships and have at least one child living with them, (2) subjects who are married or in long-term relationships but do not have children living with them, and (3) subjects who are single, and have no children living with them. As mentioned earlier, subjects who are single and have children living with them are excluded due to inadequate number of cases. For each of the subgroups included here, regression models are presented both for the main (Column-I) and moderating effects (Column-II). For the first group (married/in long-term relationship with children), we present three models, namely, the main effect model (I) including spousal and parental strain simultaneously, and interaction models estimated separately for spousal (II-a) and parental strain (II-b) while controlling for reports of the other strain.

The results of the main effect models (see Column-I, Table 1) show that commitment to conventional values is inversely related to illegal drug use for all three groups of individuals. The regression coefficients have reached the statistically significant level of $p < .05$. These observations, consistent with those of previous studies, support the conclusion that those who are committed to conventional values are less likely to use drugs. In addition, spousal strain is also positively related to drug use for individuals with and without children living with them. The effect of parental strain, while positively related to drug use by itself, is reduced to statistically non-significance when estimated simultaneously with spousal strain. This suggests that possibly spousal strain serves as a common antecedent of both parental strain and illicit drug use or that the effect of parental strain on drug use is completely mediated by spousal strain. Finally, the effect of single strain on drug use, though positive, does not reach the statistically significant level of $p < .05$.

In addition to these main effects, prior use of illicit drugs is significantly related to subsequent drug use. Those who have used drugs at early adolescence are more likely to use drugs at young adulthood. Antisocial behavior measured in early adolescence is also significantly related to subsequent drug use net of early drug

TABLE 1

UNSTANDARDIZED AND STANDARDIZED (IN PARENTHESES) REGRESSION COEFFICIENTS FOR THE RELATIONSHIPS BETWEEN ROLE STRAIN AND ILLICIT DRUG USE, AND AS CONDITIONED BY COMMITMENT TO CONVENTIONAL VALUES (NON-HISPANIC WHITES ONLY)

	Married/Long-term Relations With Children (n=836)			Married/Long-term Relations Without Children (n=820)		Single, Never Married Without Children (n=1,160)	
	I	II-a	II-b	I	II	I	II
Independent							
Spousal Strain (SPS)	0.02* (0.07)	-0.06 (-0.24)	0.02* (0.08)	0.03* (0.07)	-0.09* (-0.28)		
Parental Strain (PAS)	0.02 (0.06)	0.02 (0.06)	-0.09 (-0.24)				
Single Strain (SGS)						0.01 (0.02)	-0.09* (-0.27)
Conventionality (CTC)	-0.19*** (-0.20)	-0.41*** (-0.42)	-0.45*** (-0.47)	-0.23*** (-0.23)	-0.59*** (-0.57)	-0.24*** (-0.23)	-0.53*** (-0.51)
Interaction							
SPS x CTC		0.02* (0.38)			0.04** (0.46)		
PAS x CTC			0.03* (0.39)				
SGS x CTC							0.03** (0.42)
Control							
Adolescent Drug Use	0.19*** (0.12)	0.20*** (0.12)	0.19*** (0.12)	0.25*** (0.12)	0.26*** (0.12)	0.17** (0.08)	0.17** (0.08)
Antisocial Behavior	0.07* (0.08)	0.06* (0.08)	0.07* (0.08)	0.15*** (0.12)	0.16*** (0.13)	0.09** (0.08)	0.09** (0.08)
Current Education	-0.01 (-0.03)	-0.01 (-0.03)	-0.02 (-0.03)	-0.06** (-0.09)	-0.06** (-0.09)	-0.09*** (-0.12)	-0.09*** (-0.13)
Male	0.15*** (0.11)	0.15*** (0.11)	0.15*** (0.11)	0.07 (0.04)	0.07 (0.05)	0.05 (0.02)	0.05 (0.03)
Interview Year	-0.03* (-0.09)	-0.03** (-0.09)	-0.03** (-0.09)	-0.03* (-0.07)	-0.03* (-0.07)	-0.04*** (-0.09)	-0.04*** (-0.09)
Intercept	0.82***	1.54***	1.69***	1.58***	2.68***	2.26***	3.68***
Adjusted R^2	0.10	0.11	0.11	0.13	0.14	0.10	0.11

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed).

use. Those who reported involvement in antisocial activities in early adolescence are more likely to report illicit drug use at young adulthood. Current education attainment is inversely related to illicit drug use only in two groups, that is, for those who are in marital/long-term relationships but without children, and for those who are single. Married/quasi-married men with children are more likely to use illicit drugs than are married/quasi-married women with children. Finally, those who are interviewed later (thus tend to be older) report less use of illicit drugs, perhaps suggesting a maturation effect.

While the main effects of role strain do not seem to have very strong effects on illicit drug use, this raises the question whether the relationship between role strain and illicit drug use might be stronger under the circumstance when individuals are conventional or not. We examined the conditional relationship in the next set of models (see Column II, Table 1).

As shown (Column II, Table 1), the cross-product terms are all positively related to illicit drug use across all groups and all of them have reached statistically significant levels ($p < .05$). The main effects remain generally similar to those in previous models.

In order to examine the exact nature of the interaction effects, we plotted the relationships between each of the role strain and illicit drug use as moderated by commitment to conventional values (see Figures 1–4). Two figures are devoted to spousal strain, one for the group with children and the other for the group without children. For each of the models, two levels of commitment to conventionality are distinguished. 'Low' stands for the score one standard deviation below the mean value of commitment to conventionality and thus indicates less committed to conventional standards. 'High' stands for the score one standard deviation above the mean and thus indicates relatively stronger commitment to conventionality. We also focused on three important points of scores (from low to high) for role strain as independent variables. Higher scores indicate more strain experienced.

As shown (see Figures 1-4), the patterns of interaction effects are very similar to one another. In general, individuals not as committed to conventionality (low) are more likely to use illegal drugs than do people who are committed to conventionality (high). However, when individuals experience role strain, whether it is spousal, parental or single, only those who are more committed to conventionality (high) have increased use of illicit drugs. This is in contrast to those who are not as committed to conventionality (low), the relationships between role strain and illicit drug use either remain constant (for spousal and parental strain) or decrease slightly in the case of single strain. These observations in general support the hypothesis that to the extent that individuals experience role strain and are simultaneously committed to conventionality, they are more likely to use illicit drugs to cope with strain. The slight decrease in illicit drug use in the case of strained singles not as committed to conventionality (low) probably suggests that

FIGURE 1
SPOUSAL STRAIN AND ILLICIT DRUG USE BY COMMITMENT TO CONVENTIONAL VALUES (LOW, HIGH)

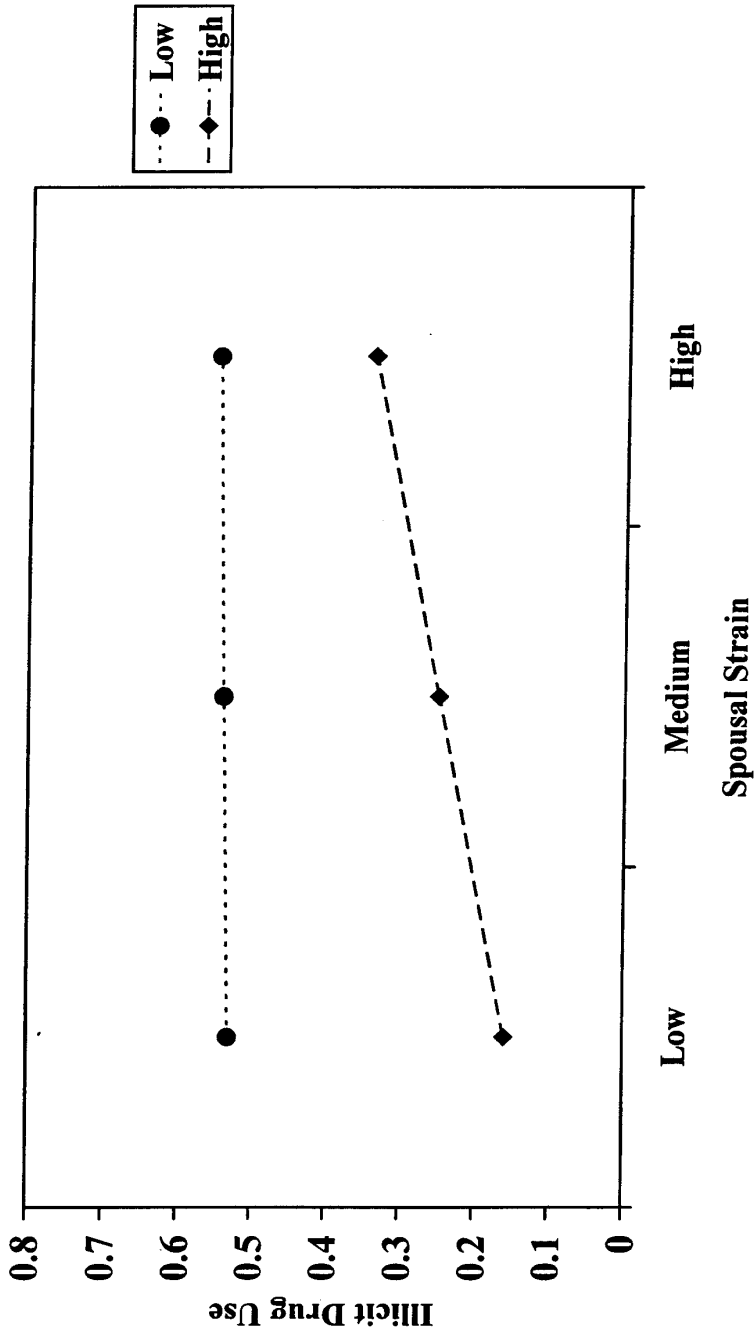


FIGURE 2
PARENTAL STRAIN AND ILLICIT DRUG USE BY COMMITMENT TO CONVENTIONAL VALUES (LOW, HIGH)

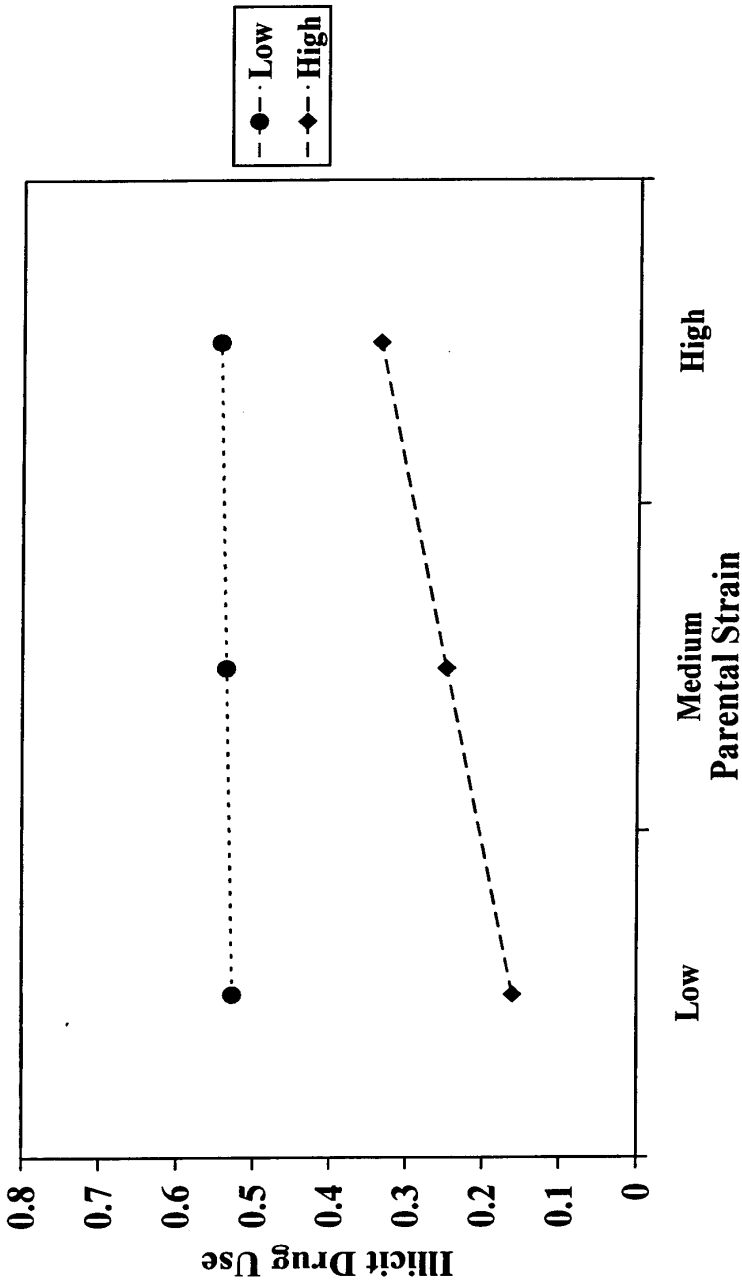


FIGURE 3
SPOUSAL STRAIN (W/O CHILD) AND ILLICIT DRUG USE BY COMMITMENT TO CONVENTIONAL VALUES

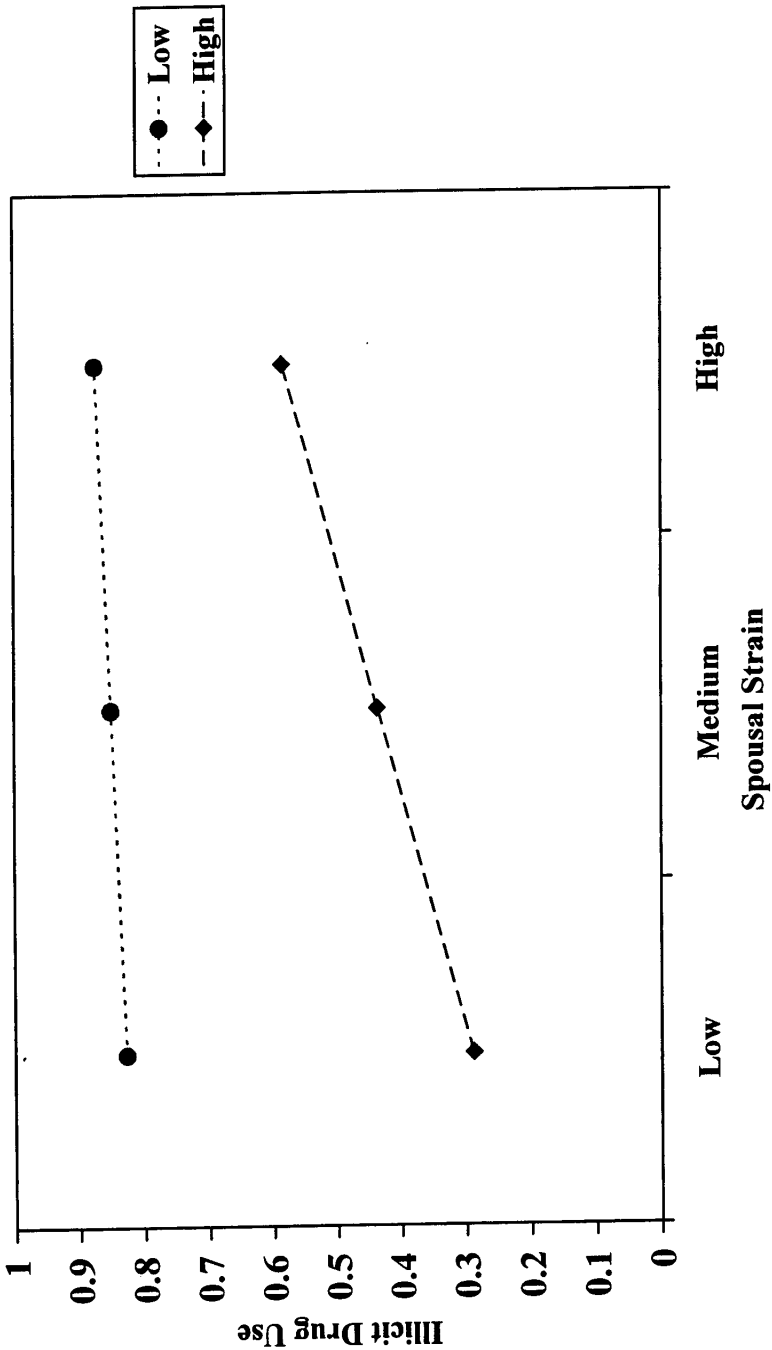
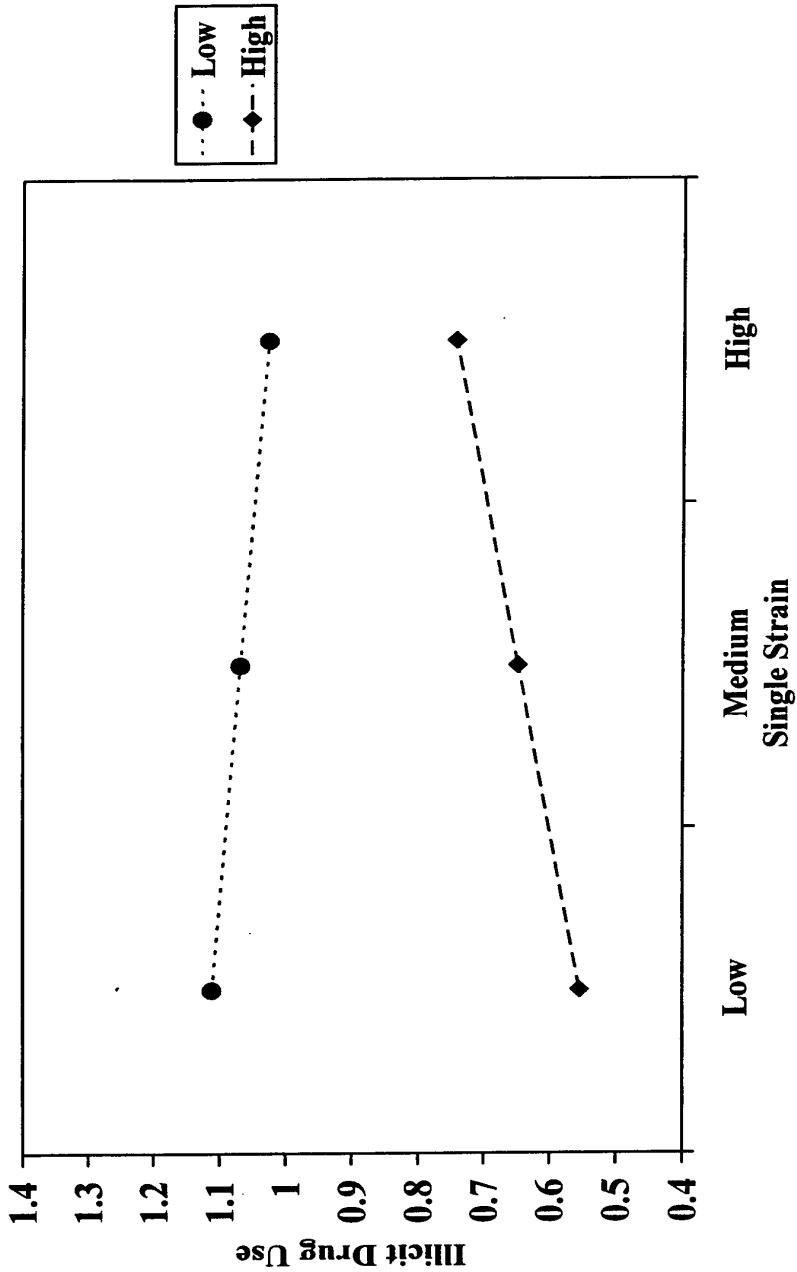


FIGURE 4
SINGLE STRAIN AND ILLICIT DRUG USE BY COMMITMENT TO CONVENTIONAL VALUES



for unconventional singles, drug use may constitute as part of their life style. Thus, when these individuals experience strain, they might become detached from drug-using network they formerly associated with and hence are less likely to participate in drug use.

Comparisons across three subgroups also show that singles without children living with them tend to use illicit drugs more than married/quasi-married individuals without children, who, in turn, tend to use illicit drugs more than those married/in long-term relationship and who have children living with them. These results are consistent with the observations reported by others (Bachman et al., 1997; Esbensen & Elliott, 1994; Farrington & West, 1995) that being in conventional roles and having social responsibilities are associated with lower level of illicit drug use.

As we reasoned earlier, individuals who experience role strain but are simultaneously committed to success in conventional roles may feel more strongly the stress associated with failure in fulfilling such role requirement. Further, such individuals may approach illicit drug use for stress reduction probably because drugs provide an effective but less disruptive or more private means to a reduction in feelings of distress. This is in contrast to individuals who are not as committed to conventionality and who may feel freer to use other strategies to deal with stress.

SUMMARY AND DISCUSSION

Previous studies on stress and drug use have provided inconclusive findings regarding the relationships between strains, especially strain related to family roles, and illicit drug use as a deviant adaptation to stress (Akers & Cochran, 1985; Crutchfield & Gove, 1984; Hoffmann & Su, 1997; McGee, 1992). Rarely have studies extended their focus to examine the conditional circumstances under which the main effect relationships between family role strain and illicit drug use are observed.

This study builds upon the literatures on stress and deviance, and examines both (1) the main effect relationships between family role strains and young adult illicit drug use, and (2) the moderating influences of commitment to conventionality on the strain - drug use relationship. Informed by theoretical frameworks on stress and adaptations, we hypothesize that individuals experiencing role stress are more likely to turn to drug use to assuage the pain associated with role failures. Drawing on the deviance literature, we also hypothesize that individuals who are committed to the conventional order are less likely to engage in unconventional activities including use of illicit drugs. However, we expect that individuals exposed to role strain and simultaneously committed to conventionality (1) may feel greater stress associated with failure in roles they value, and (2) may be more likely to use illicit drugs as a private and less disruptive stress-reduction mechanism.

Our results of the analyses indicate that commitment to conventionality is inversely related to illegal drug use. This is consistent across all three subgroups,

namely, (1) among those who are married/in long-term relationships and have children living with them, (2) those who are married/in long-term relationships and without children, and (3) single individuals without children. In addition, those who are married/in long-term relationships and with children living with them are least likely to use illicit drugs whereas those who are single, and have no children are most likely to use illicit drugs.

Arguably, the most interesting results of the study concern the moderating effects of commitment to conventionality on the relationships between role strain and illicit drug use. While the main effects of role strain on drug use are statistically significant only for spousal strain, the interactive effects of role strain and commitment to conventionality on illicit drug use reach statistically significant levels in all three subgroups. In addition, the moderating patterns are quite similar for the three types of role strain. Individuals who experience role strain and are committed to the conventional order tend to be more likely to report illicit drug use. For those who are not committed to conventional order, strains either do not increase involvement in illicit drug use (spousal strain) or decrease drug use slightly (parental and single strain). These observations in general support our earlier contention that conventional individuals may find (1) strain related to failure in valued roles as more distressing and (2) alternative mechanisms in stress reduction to be psychologically unavailable. As suggested, the use of drug use is acceptable under circumstances of severe strain for highly conventional individuals, perhaps because it is a more private and less disruptive pattern than other deviant mechanisms.

These results are generally consistent with similar findings in the literature regarding observations of greater mental distress for individuals who are committed to social roles or who regard the role as having a higher priority (Simon, 1992; Thoits, 1991). The results also support the general contention that meanings/values/beliefs associated with roles and role stress have important implications for experiences of distress and coping patterns (Simon, 1992; Thoits, 1995; Wheaton, 1990).

The heightened use of illicit drugs for strained, conventional individuals also supports the contention (Kaplan, 1986, 1996) that conventional people experiencing strain of role failures may find it difficult to disconnect themselves from their valued standards. Hence their choices of deviant responses are limited (e.g., to such private mechanisms as drug use).

The current findings, however, should be viewed with caution due to a number of methodological limitations. First, the data used for current analyses are mainly cross-sectional. Although we measured some common antecedent variables at an earlier point in time, our key variables are measured simultaneously. The main caveat of the concurrent measures is that we are unable to establish a causal ordering among our study variables. Thus, use of illicit drugs may precede role strain, although such use does not preclude the more plausible argument that role strain precedes illicit drug use. Future studies, however, should replicate these findings with longitudinal data.

Second, our measure of illicit drug use is somewhat limited. We are unable to differentiate the use from the abuse of illicit substances. In addition, we do not have specific measures of the types of illicit drugs other than marijuana. Further, we have mainly concentrated on use of illicit drugs. This certainly does not preclude the use of socially approved drugs such as alcohol as a possible coping mechanism of stress. Future studies should examine these relationships by including a broader conceptualization of drugs.

Third, our study is limited to investigating role strain experienced by young adults. Although it is beyond our focus to examine role strain experienced in other stages of life, it is important for future studies to consider role strain over the life course. For instance, mature adults may experience strain in social relationships, especially with their teenage and adult children. Studies also need to consider strain for individuals who are single and have children. We were unable to assess these relationships due to inadequate number of cases in this category.

Fourth, experiences of role strain are certainly not limited to family roles. Future studies need to examine broader arrays of social strains (e.g. financial, job) and role performances as additional dimension of the relationships between strain and illicit drug use. Studies may also examine additional moderating variables for the relationships between role strain and other deviant adaptation patterns.

Finally, we need to extend our focus to examine whether individuals with pre-existing psychosocial problems may be more vulnerable to role strain and hence more likely to resort to deviant coping mechanisms. Of particular concern to us is whether individuals with pre-existing antisocial personality and psychological problems, manifested during adolescence, are more vulnerable to adult role strain and hence more likely to use unconventional coping strategies to deal with stress.

Despite these caveats, the present study contributes to both the stress and deviance literature by suggesting an explanation of deviant behavior by strained but conventionally committed individuals. These findings regarding a particular conditional mechanism (conventional commitment) should also redirect our research focus on conditional variables that moderate the relationships between stress, coping, and social outcomes. Further, if they are replicated, these results have significant implications for the treatment and prevention of disordered states in populations that are not ordinarily thought of as being at risk. That is, conventionally committed individuals who may be suffering because of their inability to approximate the conventional standards to which they are emotionally committed.

NOTES

[1] While generally satisfactory, the alpha reliability score for Parental Strain is slightly lower than other indicators of role strain. This might be attributed to two main reasons. First, the response format of two questions for the index of Parental Strain is worded slightly different from the rest of the questions. Such a difference might impact the consistency of the index. Second, the alpha reliability scores tend to be influenced by the number of items used in constructing the indices. Thus, the relatively smaller number of items in the

Parental Strain index may contribute to its relatively lower alpha score compared with other strain indicators.

[2] For the purpose of parsimony, we constructed the overall use of illicit drugs by including marijuana and other illicit drug use into a single index. In our earlier analysis, we examined marijuana and other illicit drug use as two separate measures and used logistic regression for analysis. The results are very similar to those reported here. In addition, although the current analysis focuses on the relationship between role strain and use of *illicit* drugs, we recognize that individuals are likely to use socially approved drugs, e.g., alcohol, as a stress-reduction mechanism. Unfortunately, our question on alcohol use tends to measure heavy intake of alcohol and problematic consequences of drinking. Neither of these questions yielded an adequate number of cases for a separate analysis. Instead, if we measure alcohol as part of the general drug-use index, the results are very similar to the ones reported here.

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