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Gendered Responses to Serious Strain: The Argument for a General Strain Theory of Deviance

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Abstract

This paper expands and builds on newer avenues in research on gender and general strain theory (GST). I accomplish this by focusing on serious strains that are relevant for males and females, including externalizing and internalizing forms of negative emotions, and including multiple gendered deviant outcomes. Using the Add Health dataset, I find strong support for the impact of serious strains on both types of negative emotions and different forms of deviance for males and females. However, the experience of serious strain, emotionally and behaviorally, is gendered. Depressive symptoms are particularly important for all types of deviance by females. Including multiple types of deviant outcomes offers a fuller understanding of both similarities and differences by gender. These results support the utility of GST as a theory of deviance in general and support greater connections between GST, feminist theorizing, and the sociology of mental health.

Keywords

general strain theory; gender and deviance; gendered responses; serious strain

INTRODUCTION

Over the last fifteen years, general strain theory (GST) has developed into one of the leading social psychological theories of crime with a fairly developed body of research (Agnew, 1992, 2001, 2006a). Agnew (1992) argues that various negative relations with others (strain or stress) lead to negative emotions and encourage some type of coping. That coping is more likely to be criminal when the strains are severe, seen as unjust, and are linked with anger (Agnew, 2001). In 1997, Broidy and Agnew laid out various hypotheses about how GST could be used to address two issues in gender and crime: the gender gap in crime such that males are over-represented for most criminal behaviors (the gender ratio problem) and the explanation of female crime with a mainstream theory (the generalizability problem) (Daly & Chesney-Lind, 1988, pp. 514–515). Broidy and Agnew (1997) proposed that GST's theoretical processes were broad enough that the theory could help explain the gender gap in crime and provide an explanation of female crime through a focus on the types of strain, emotional responses, and conditioning factors that affect males and females in the contexts of their lives. They further note that GST makes theoretical arguments similar to feminist accounts of female offending (Chesney-Lind, 1989) by including a focus on how victimization and oppression may impact deviant behaviors.

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In the past ten years, a number of researchers have sought to test Broidy and Angew's (1997) ideas (either explicitly or implicitly) with mixed results. Some have found very few or no significant gender differences in the strain-crime process (Agnew & Brezina, 1997; Hoffman & Cerbonne, 1999; Hoffman & Su, 1997; Mazerolle, 1998). Mazerolle (1998), however, did find significant gender differences in crime specific equations, and more recent research has continued to find some significant differences by gender suggesting that the experience of strain, both emotionally and behaviorally, is gendered (Broidy, 2001; Hay, 2003; Jang 2007; Jang & Johnson, 2005; Piquero & Sealock, 2004; Robbers, 2004; Sharp, Brewster, & RedHawk Love, 2005; Sharp, Terling-Watt, Atkins, & Gilliam, 2001; Sigfusdottir, Farkas, & Silver, 2004).

However, to begin to fully assess the gendered nature of the strain process requires drawing on newer avenues in GST research including: (1) examining appropriate serious strains that are relevant for males and females (Broidy & Agnew, 1997; see Hay, 2003; Jang, 2007); (2) including multiple measures of emotional experience that (a) capture both internalizing and externalizing types of emotional experiences (Agnew, 2006a; Broidy & Agnew, 1997; Broidy, 2001; Hay, 2003; Jang, 2007; Jang & Johnson, 2003, 2005; Piquero & Sealock, 2000, 2004; Sigfusdottir et al., 2004) and (b) that include these emotions as both outcomes (see De Coster, 2003; De Coster & Heimer, 2001; Van Gundy, 2002) and mediators; (3) examining a more extensive variety of deviant outcomes that recognize the gendered nature of deviant choices (Broidy, 2001; Jang, 2007; Sharp et al., 2001, 2005); and (4) examining a more extensive variety of legitimate coping strategies and resources (Broidy & Agnew, 1997; Broidy, 2001; Jang, 2007; Jang & Johnson, 2005; Piquero & Sealock, 2004).

In this paper, I build on recent literature in addressing these first three issues by focusing on serious strains that reflect gendered experiences (suicide attempts by friends and family, violent victimization), including measures of both angry temperament and depressive symptoms as dependent variables and as mediators, and by including multiple gendered deviant outcomes including suicidal thoughts, weekly drinking, running away from home, and violence. This is one of the only papers to consider suicide attempts by friends and family as a form of strain and to include a broader range of deviant outcomes including two with higher male participation (weekly drinking, violence), and two with higher female participation (suicidal thoughts, running away from home) (CDC, 2006). Forms of deviance like suicidal thoughts are rarely examined in research on the etiology of deviance because most of that literature focuses on behaviors that qualify as crime/delinquency (Cullen, 1983; De Coster, 2003). However, such outcomes are of particular relevance for females (see Hay, 2003). For social psychological theories of deviance, this issue is of particular importance because the theoretical processes described in some of these theories (e.g., general strain theory, social learning theory, social control theory, self-control theory) draw from and overlap with other areas of sociology including social psychology and the sociology of mental health. The examination of these various specific outcomes and the related strain processes leading to them are enabled by use of the Add Health data, a large dataset that is big enough to examine specific types of deviance. The strategy of examining specific types of deviance separately rather than in composite scales is critical for the examination of the gendered nature of the strain process and the gendered nature of deviance more generally. While composite scales have helped build the broader literature on GST, the use of these scales has actually hindered the research on gender and GST by obscuring the gendered nature of the different types of deviant acts. In this sense, the gender and GST literature is becoming more strongly consistent with some feminist critiques in criminology (Triplett & Myers, 1995) and research strategies in the sociology of mental health (Aneshensel, Rutter, & Lachenbruch, 1991; Van Gundy, 2002) while at the same time extending the application of a mainstream theory of crime.

THEORETICAL FRAMEWORK

GENERAL STRAIN THEORY

Agnew (1992) proposed general strain theory as a way to expand and generalize the concept of strain at the social psychological level to understand how individuals emotionally and behaviorally cope with strain, including engaging in a variety of criminal behaviors. While earlier versions of strain theory focused primarily on the inability to achieve economic or class-based status goals as stressors (see Cohen, 1955; Cloward & Ohlin, 1960; Merton, 1938), Agnew (1992) drew heavily on research on perceptions of justice and exposure to stress to broaden the concept of strain to include a variety of negative relations with others. These negative relations include the threatened or actual experience of not achieving highly valued goals, losing someone or something that one values, or the presentation of negative stimuli. Support for focusing on the latter two sources of strain (loss of something positive and presentation of negative stimuli) particularly comes from the research on stress (see Mirowsky & Ross, 2003; Pearlin, 1989). Recent research indicates that strains that are high in magnitude (severe, harmful, threatening), that are seen as unjust (seen as undeserved and unfair), that are linked with low social control, and that contain some special incentive for crime are more likely to lead to crime (Agnew, 2001). Certain strains (e.g. parental rejection, excessive discipline, child abuse, criminal victimization etc.) are likely to meet all four of these criteria and thus are especially likely to be criminogenic (Agnew, 2001, pp. 343–347).

Agnew argued that these negative relations elicit negative emotions including fear, depression, frustration, anxiety, and anger. Because anger lowers inhibitions, encourages blaming others, and motivates behavior, Agnew (1992, pp. 59–60) focused on anger as the emotion most likely to lead to a criminal choice. Engaging in crime is among the range of coping strategies that individuals may choose depending on their disposition (e.g., bad temper, association with deviant peers) and constraints (e.g., attachment to family). Factors making up the disposition and constraints to deviant coping are drawn primarily from other theories of criminality (social control theory, social learning theory, self-control theory), and the sociology of mental health literature (Agnew, 1992).

After 15 years of research, GST has garnered extensive empirical support but primarily for the impact of composite measures of serious strain on scales of total delinquency and violent crime and for the role of anger (e.g., Agnew, 2002; Agnew & White, 1992; Paternoster and Mazerolle, 1994; Piquero & Sealock, 2000). Further, few factors seem to condition the effect of strain on crime (Agnew, Brezina, Wright & Cullen, 2002; Aseltine, Gore, & Gordon, 2000), except see Jang and Johnson (2003, 2005) and Mazerolle and Maahs (2000).

THEORIZING GENDER AND GENERAL STRAIN THEORY

Broidy and Agnew (1997) explicitly address how general strain theory can be used to explain the gender gap in criminal behavior and the criminal behavior of females. After examining a number of possible ways to address these issues, they argue that males and females are likely to experience similar levels of strain and anger, and females may actually experience more strain and anger than males (see Mirowsky & Ross, 1995, 2003; Turner, Wheaton & Lloyd, 1995). However, gender differences in the types of strains, the emotional responses to strain, and the range of constraints/disposition to crime may aid us in understanding why males are more likely to engage in criminal coping. In particular, there is evidence that males and females are likely to differ in their goals and conceptions of fairness such that males are more focused on material goals and fair distribution while females are more concerned with personal relationships and fair procedures (Broidy & Agnew, 1997, p. 279). Females are also likely to experience certain types of gender-specific strain such as gender based discrimination (see Eitle, 2002), behavioral restrictions (Bottcher, 1995), more extensive demands from family

members, and greater exposure to certain types of criminal victimization (sexual abuse, sexual assaults, rape, intimate partner violence) (Kruttschnitt & Macmillan, 2006; Tjaden & Thoennes, 2000, 2006). Females may also be more sensitive or vulnerable to network related stressors (problems with family and friends) (Turner, Wheaton & Lloyd, 1995). Males may experience more problems in relationships with peers (Giordano, Cernkovich, & Pugh, 1986), higher levels of criminal victimization for most types of crime (Rennison, 2001), and may be more vulnerable to financial strain (Conger, Lorenz, Elder, Simons, & Ge, 1993).

While males and females may both experience anger in relation to strain, female emotional experience is likely to be more complex with other co-occurring emotions such as guilt, sadness, and depression (Mirowsky & Ross, 1995). Likewise, the different constellations of emotions experienced by females may encourage other forms of deviance (eating disorders) not traditionally examined by criminologists (except see Sharp et al., 2001, 2005). Finally, it is likely that males and females differ in their constraints (social support, coping skills) and disposition (temperament, criminal beliefs, deviant friends) toward crime (Broidy & Agnew, 1997). There is ample evidence from the stress and mental health literature that females tend to be higher in social support (particularly emotional) than males (Turner, 1999), and this may aid in reducing many types of deviant behavior and encouraging positive coping strategies. Likewise, gendered socialization encourages the expression of anger and competition among males, particularly in male peer groups (Thorne & Luria, 1986), and this may encourage more confrontational and aggressive types of crimes.

EMPIRICAL LITERATURE ON GENDER AND GST

Over the past ten years, a number of researchers have examined gender and GST with some finding no clear gender differences while others find evidence of gendering in the strain-deviance process. Agnew and Brezina (1997) examined whether interpersonal strain would have a greater effect on female than male delinquency using one wave of a national dataset (NELS). In fact, they found the opposite; interpersonal strain had a stronger effect on male delinquency than female delinquency. Hoffmann and Su (1997) examined the longitudinal impact of stressful life events on delinquency and drug use among a sample of high risk youth and found no significant gender differences in the process. Likewise, analysis of four waves of data from the Family Health Study revealed no significant gender differences in the link between stressful life events and delinquency (Hoffmann & Cerbone, 1999). Using the first two waves of the National Youth Survey, Mazerolle (1998) found no significant gender differences in the impact of various strain measures on a composite scale of delinquency. However, Mazerolle (1998) found some significant differences in a separate examination of violent delinquency such that two types of strain (negative life events, negative relations with adults) had a stronger effect on violent male delinquency. Based on these findings, Mazerolle (1998: 85) noted, however, that future research should examine “the full range of external (e.g., crime) and internal (e.g., depression, eating disorders) responses adopted by males and by females while experiencing strain and anger.”

More recent researchers have heeded Mazerolle’s call and produced some interesting results supporting gender differences in emotional experience and behavioral expression in the strain process. Using a sample of college students, Broidy (2001: 28) found that while males and females self-report similar levels of strain and respond to strain with anger, females were significantly more likely to experience non-angry negative emotions and use legitimate coping strategies in response to strains. As found in most literature, males were significantly more likely to use criminal coping strategies in response to strain (Broidy, 2001). Drawing on a sample of adolescents in one city, Hay (2003) found that while males and females experienced similar levels of anger from family related strain, females reported significantly higher levels of guilt. Since guilt was negatively associated with delinquency, this gender difference in

emotionality aided in explaining why females have lower levels of delinquency than males (Hay, 2003). Hay (2003: 126) called for additional research that considers a broader array of negative emotions and a broader array of deviant behaviors such as eating disorders and suicidal thoughts that may be more relevant for female responses to strain.

Similar to Broidy (2001) and Hay (2003), Sigfusdottir, Farkas, and Silver (2004) found that girls' higher levels of depressed mood in addition to anger from family conflict strain may account for their lower levels of delinquency compared to boys in a national sample of Icelandic adolescents. With the National Survey of Black Americans, Jang and Johnson (2005) found that African American women were more likely than African American men to experience depression and anxiety in response to strain, while both sexes experienced anger in response to strain. In addition, the higher level of religiosity among African American women helped to protect them from distress and reduce the likelihood of crime compared to African American men. Jang (2007) continued this work more recently to test three of Broidy and Agnew's (1997) propositions finding clear support for gendered experiences of strain such that African American women reported greater experiences of gender-linked strains such as interpersonal strains and strains related to gender roles in the family. Likewise, African American women were less likely to turn to deviant coping techniques and more likely to turn to non-deviant coping because of their greater experiences with depression and anxiety (self-directed emotions).

Using a sample of detained juveniles, Piquero and Sealock (2004) found that household physical and emotional abuse was positively associated with anger among both males and females but had a stronger effect on depression among males. This odd finding may have been due to the small sample size for females (n=37). Contrary to expectation, social coping resources encouraged (rather than discouraged) delinquency among males, likely due to social coping involving deviant peers (Piquero & Sealock, 2004). Robbers (2004), however, found support for the impact of a broad measure of social support on reducing delinquency and buffering the impact of strain using the sixth wave of data from the National Youth Survey. In addition, Robbers (2004) found that exposure to negative stimuli (including gendered experiences such as physical abuse, sexual pressure, and victimization) had a significantly stronger impact on female delinquency than male delinquency.

Sharp and colleagues (2001, 2005) have expanded the application of gender and GST by considering the purging behavior of college students as a measure of gendered deviance. In a sample of college females, Sharp et al. (2001) found a significant interaction between depression and anger in predicting purging behavior such that anger was associated with purging only at high levels of depression. Using a broader sample of male and female college students, Sharp et al. (2005) examined the impact of childhood neglect, abuse, and parental hostility on anger, negative emotions, criminal behavior, and disordered eating. Abuse was linked to both anger and negative emotions among females, but not males. However, personal resources like self-esteem, mastery and social support appeared to ameliorate these emotions. Similar to Broidy (2001) and Hay (2003), Sharp et al. (2005) found that females experienced higher levels of non-angry negative emotions which in turn were negatively associated with crime. However, non-angry negative emotions were associated with disordered eating among females.

SIGNIFICANCE OF CURRENT RESEARCH

I build on this recent literature on gender and GST by addressing three major areas with corresponding hypotheses. First, I focus on serious strains that are relevant to males and females, violent victimization (presentation of negative stimuli) and suicide attempts by family/friends (threatened loss of valued persons)[1]. Violent victimization is one of the most severe strains associated with deviant outcomes (Agnew, 2002;Hay & Evans, 2006;Kaufman,

2005). According to Agnew (2001: 346), criminal victimization is one of the types of strain that meets all four criteria for encouraging crime (unjust, high in magnitude, low social control, pressure for criminal coping). Criminal victimization (especially violent), by definition, is likely to be perceived as unjust (unfair, undeserved) and high in magnitude (harmful/threatening). Further, victimization is most likely to occur in situations of low social control (unsupervised youth), and, by definition, involves exposure to criminal models (Agnew, 2001: 346). Although males are likely to experience higher levels of victimization overall (Rennison, 2001), females are more often subject to certain forms of victimization (sexual abuse, sexual assault, rape, intimate partner violence) (Kruttschnitt & Macmillan, 2006;Tjaden & Thoennes, 2000,2006).

The suicide attempts of family and friends may be particularly unique because the suicide attempter is likely to be suffering from some type of emotional stress, strain, or possible mental illness. Knowing someone who is experiencing such a high level of distress (if known) is likely to be a form of strain even before the suicide attempt. Broidy and Agnew (1997: 291) note that the loss or threatened loss of positively valued persons may be especially relevant to females because there is evidence that females are more affected by events happening to people (friends, family) in their personal networks. In addition, this may act as a form of deviant social learning by providing the youth with a deviant model (Akers, 1998). Finally, females are more likely than males to attempt suicide (CDC, 2006) so this type of strain may be more relevant for females. This is one of the only papers to examine suicide attempts by friends/family as a form of strain.

Thus, *Hypothesis 1* predicts that the experience of strain is gendered such that (a) males are more likely to be violently victimized while females are more likely to experience certain types of violent victimization, and (b) females are more likely to experience higher levels of strain associated with important relationships (suicide attempts by family/friends).

Second, I examine both anger and non-angry negative emotions as both dependent variables and as mediators between strain and deviant outcomes. Including both types of emotions appears to be critical for an understanding of the gendered nature of the strain process given the complexities of emotions, particularly for females (Broidy, 2001; Hay, 2003; Jang, 2007; Jang & Johnson, 2005; Piquero & Sealock, 2004; Sharp et al., 2001, 2005; Sigfusdottir, Farkas, & Silver, 2004). While it is consistent with general strain theory to examine negative emotionality as mediating variables, more recent research in gender and deviance pushes for the recognition of non-angry negative emotions, particularly depression, as a key form of internalized deviance (De Coster, 2003; De Coster & Heimer, 2001; Van Gundy, 2002). This is further bolstered by research in the sociology of mental health emphasizing negative emotionality as one of a number of key outcomes (Aneshensel, Rutter, & Lachenbruch, 1991).

Hypothesis 2 predicts that the emotional response to strain is gendered such that (a) the relationship between strain and non-angry negative emotions (depressive symptoms) is stronger for females than males and, (b) the relationship between strain and anger is similar for males and females.

Finally, I examine multiple gendered deviant outcomes including suicidal thoughts, weekly drinking, running away, and violence. While Broidy and Agnew (1997) and a few others (Broidy, 2001; Hay, 2003; Mazerolle, 1998) note the importance of recognizing that many of

[1]Although there are other items in Add Health that may be forms of strain (pubertal timing, problems at school), I am primarily interested in very serious strains that meet Agnew's (2001) criteria for encouraging crime. Because many forms of strain may not clearly lead to deviant behaviors (see Agnew, 2001), I focus on the most serious types.

the forms of female deviance (eating disorders, suicidal thoughts etc.) are often not included in criminological studies, Sharp and colleagues (2001, 2005) were the first to include such forms of deviance (purging) as outcomes. Broidy and Agnew (1997, pp. 284–286) further note that gendered socialization experiences, social norms, and higher levels of social control of females suggest that females may be more likely to respond to strain and negative emotions with non-confrontational forms of deviance such as eating disorders, drug/alcohol use, and running away while males may be more likely to choose confrontational and aggressive forms of deviance. These four forms of deviance were specifically chosen because these reflect gendered deviant behaviors such that two are more common among males (weekly drinking, violence) and two are more common among females (suicidal thoughts, running away) (CDC, 2006; Snyder & Sickmund, 2006). Summary measures of deviance may be problematic because gender differences in prevalence, incidence and context vary by type of deviance (Triplett & Myers, 1995). This call to examine multiple types of outcomes that are gender sensitive is also consistent with literature in the sociology of mental health (Aneshensel et al., 1991; Van Gundy, 2002). Further, this recognizes points made by feminist criminologists calling for a recognition of critical causes (sexual abuse, victimization) of more common forms of female deviance (running away) (Chesney-Lind, 1989; Chesney-Lind & Pasko, 2004).

Hypothesis 3 predicts that the relationship between strain and deviance is gendered such that (a) strain and negative emotions are more strongly associated with non-confrontational forms of deviance (suicidal thoughts, weekly drinking, running away) for females while (b) strain and negative emotions are more strongly associated with confrontational deviance (violence) for males.

To summarize, I draw on Broidy and Agnew (1997) and recent research to predict gendering in three major areas: exposure to strain, emotional response to strain, and the deviant response to the strain and negative emotions. It is important to re-emphasize Broidy and Agnew's (1997, p. 296) point that the gender differences in the strain-negative emotions-deviance process are differences in "degree" not "kind." Males and females both experience various types of strain and negative emotion, and both respond with many varieties of deviant behavior that may or may not conform to gender norms. However, recent research on general strain theory, research in the sociology of mental health, and feminist criminology all call for a more gender-sensitive and nuanced understanding of how gender may influence many aspects of men's and women's lives to create both similar and unique pathways. I now turn to the data and operationalization of these three main hypotheses.

METHODS

DATA

For this study, I used the first two waves of the National Longitudinal Study of Adolescent Health, commonly known as Add Health (Udry, 1998). These first two waves were collected in 1994–1995 and 1995–1996 at one year apart by the Carolina Population Center at the University of North Carolina at Chapel Hill. Add Health is a nationally representative, probability based self-report survey of adolescents in grades 7–12 in 1994 (Harris, Florey, Tabor, Bearman, Jones, & Udry, 2003). The survey is multistage involving data collection at school initially and at home for the two time periods. The first in-home interview also involved an interview with one parent. The sample is stratified by region in the U.S., and the clusters are 132 middle and high schools across the U.S. selected with unequal probabilities. They purposely over-sampled for highly educated Blacks, Cubans, Puerto Ricans and Chinese. The total weighted sample size for the combined waves 1 and 2 is 13,570. After missing data, the sample size for all analyses is 12,018.

MEASURES

Strain Theory Measures—I included two measures of serious strain from wave 1: suicidal behavior by friends and family and violent victimization. Suicidal behavior by friends and family captures the threatened loss of someone/something positive while violent victimization captures the presentation of negative stimuli. Prior research on general strain theory (see summary in Agnew, 2001) indicates that serious strain is more likely to lead to crime and deviance. Further, there is evidence that experiencing victimization is particularly linked with criminal and deviant outcomes (Agnew, 2002; Hay & Evans, 2006; Kaufman, 2005). Suicidal behavior by friends and family is a dichotomous measure (0/1) coded 1 when a youth answered yes to "friend or family member tried to kill themselves (or succeeded in killing themselves) during the past 12 months." Although the original questions were separated for attempted and completed suicides, very few youth know someone who had completed a suicide (3.85%) so I combined both attempted and completed suicides.

The Add Health data included four questions covering violent victimization over the prior year (someone pulled a knife or gun on youth, shot youth, cut or stabbed youth, youth was jumped) measured as never, once, or more than once. Because the majority of youth had not experienced any victimization (84% of females, 72% of males), I dichotomized the measure as 0/1. This measure of victimization is limited in that it is de-contextualized (no information about locations or relationship with offenders) and does not adequately address sexual assault and child abuse, types of victimization that are of particular relevance to females.[2] This restricts my ability to effectively examine the types of victimization that females are more likely to experience and limits my test of hypothesis one. However, this is the best measure in the data that captures multiple types of victimization and can be used for both males and females.

I used two measures of negative affect from wave 1: depressive symptoms and bad temper. The use of depressive symptoms is consistent with recent research on general strain theory (Brezina, 1996; Broidy, 2001; Jang & Johnson, 2003; Piquero & Sealock, 2000, 2004). Bad temper, however, captures trait based anger rather than situational anger. While a measure of situational anger would be preferable (Mazerolle, Piquero, & Capowich, 2003), Add Health does not have such a measure. However, there is evidence that those higher in trait based anger are more likely to experience situational anger (Mazerolle et al., 2003).

Depressive symptoms are measured with the additive scale of 19 of the original 20 items in the CES-D depression scale asked about the prior week (α=.87). This commonly used measure of depression with high reliability and validity (Radloff, 1977) includes questions about feeling depressed, fearful, lonely, and sad on a scale from 0=never or rarely to 3=most of the time or all of the time. Researchers have used a number of ways (additive scale, averaged additive scale, logged additive scale, dichotomy at clinical cut-off) to construct the CES-D depression scale depending on their research question (Hagan & Foster, 2001, 2003; Harker, 2001; Meadows, 2007; Turner & Lloyd, 1999; Van Gundy, 2002); the additive scale, or averaged additive, scale is by far the standard because it represents the range of distress.

The time period for the depressive symptoms questions is more limited (prior week) than other measures in the dataset (prior year). However, for the purposes of testing general strain theory, this is an advantage. Strain effects on emotions are often expected to be relatively short-lived (few months) (Agnew, 1992) thus making the use of traditional longitudinal data with 1+ year time lags somewhat problematic (Brezina, 1996). With Add Health, the measures of depressive symptoms (week before interview) are likely to occur after the experience of serious strain (within the year before the interview), thus allowing for some assessment of temporal ordering

[2]Add Health has very limited and problematic coverage of rape and sexual assault. Only females were asked about rape/sexual assault in a poorly worded question that elicited very few positive responses, suggesting serious under-reporting due to the validity of the question.

and a possible shorter time between the experience of the serious strain and the depressive symptoms.[3]

The measure of bad temper, coded 0=no/1=yes, is a single question asked of the parent: does your child have a bad temper? No such question was asked of the youth directly.[4]

Other Theoretical Controls—I included four measures from wave 1 that capture aspects of other important theories of criminality, social control theory (Hirschi, 1969) and social learning theory (Akers, 1998), and overlap with important variables in the sociology of mental health. In addition, these measures capture aspects of the constraints and disposition to deviant coping described in general strain theory (Agnew, 1992). Social support, school attachment, grades, and deviant friends are commonly used in most tests of general strain theory (see Agnew, 2002; Hoffmann & Su, 1997; Paternoster & Mazerolle, 1994). Social support is one of the most frequently studied concepts in the sociology of mental health, is multi-faceted involving multiple types of support (instrumental such as money, information, and/or emotional), and has strong direct and buffering effects on measures of psychological distress such as depressive symptoms (Thoits, 1995; Turner, 1999). Perceived emotional support is one of the more common measures of social support involving an individual's perception that significant others (family, friends etc.) care about, understand, and value the individual (Thoits, 1995: 64). The "perception" of this support has a stronger impact on mental health outcomes than the "actual" support (Thoits, 1995; Turner, 1999). I chose to use social support rather than family attachment, a more typical measure in criminological research, because social support is a critical measure when studying mental health variables like depressive symptoms and involves a combination of the youth's perception of emotional involvement and feelings of understanding from multiple individuals (family, teachers, adults, friends) in the youth's life.

Social support was measured as the average of the following seven questions on a scale of 1 (not at all) to 5 (very much): how much do you feel that adults care about you, teachers care about you, your parents care about you, your friends care about you, people in your family understand you, you and your family have fun together, and your family pays attention to you. This scale captures aspects of perceived emotional support and attachment to significant others consistent with social control theory (Hirschi, 1969) and overlapping with the sociology of mental health (Turner, 1999), has reasonable reliability (α=.78), and has been used by other Add Health researchers (Harker, 2001).

School attachment was measured as the average of three questions (α=.78) asked from 1 (strongly disagree) to 5 (strongly agree) including: do you feel close to people at school, do you feel like you are a part of the school, and are you happy to be at your school. Grades are a measure of school commitment (Hirschi, 1969) and are included as the average of a youth's grades (1=D to 4=A) in at least two classes (English, math, history/social studies, and science). Deviant friends, a key factor from social learning theory (Akers, 1998), were measured as an additive scale of three questions on how many of the youths' 3 best friends smoke at least 1 cigarette a day, drink alcohol at least once a month, and smoke marijuana at least once a month. The final scale ranges from 0–9 with α=.76. This measure is limited in that it only captures substance use rather than broader deviance, but adolescent substance use tends to be highly correlated with other deviant behaviors.

[3]Although I cannot rule out the possibility that the serious strain may have been experienced during the week before the interview and co-occur with the measure of depressive symptoms, it is unlikely to be the case for most individuals in the sample.

[4]Because 15% of the parent data is missing due to non-participation, I imputed the missing data using a stochastic imputation technique that assigns a 0 or 1 to each missing value using random numbers and predicted values from a logistic regression with all the independent variables (Landerman, Land, and Pieper, 1997). The variable with imputed data produced similar results to the variable without the imputed data. I included the imputed data to preserve cases.

General Controls—I control for mother's education (1=less than high school to 5=professional/graduate degree), resident mother and/or resident father receiving public assistance (0/1), race/ethnicity (dummy variables for Latino/a, Black, Asian, and Other Race with White as reference group), single-parent family (0=2 parents, 1=1 parent), age, and others present at the interview (0=no, 1=yes). These measures include many commonly used to control for sociodemographic status. Further, I control for others being present at the interview because youth may feel inhibited about reporting deviant behaviors in the presence of others (Fendrich & Johnson, 2001).[5]

Deviance Dependent Variables—The four deviance variables reflect gendered choices by male and female adolescents (CDC, 2006; Snyder & Sickmund, 2006) and include suicidal thought (0/1), weekly drinking (0/1), running away (0/1), and violence (0–4). All are measured at both wave 1 and wave 2. Suicidal thought is based on the youths' report of seriously thinking about committing suicide during the prior year (0/1=yes). This question was followed up with one on suicide attempts. However, very few youth (less than 3%) attempted suicide in the prior year, and all those who attempted suicide also said yes to suicidal thoughts. Weekly drinking is based on the youths' report of drinking alcohol at least 1 or 2 days a week during the prior year (0/1=drank at least 1 to 2 days a week). Because alcohol is a commonly used substance among youth and much use may be experimentation, I focus on the more serious level of alcohol use. Running away is based on the youths' report of running away from home in the prior year. The original responses included never to five or more times. But, very few youth ran away from home more than 1 or 2 times so I dichotomized the responses (0/1=running away at least once).

Violent offending is based on the youths' report of getting into a serious physical fight, hurting someone badly enough to need bandages or care from a doctor or nurse, using or threatening to use a weapon to get something from someone, or pulling a knife or gun on someone in the prior year. The first three were measured from 0–3 (never to 5 or more times) while the last was measured from 0–2 (never to more than once). Because of differences in the scales of the questions and the majority of respondents answering either 0 or 1 on each scale, I dichotomized each question (0/1=committed act at least once), and summed the responses for a final additive scale ranging from 0–4. This type of scale is recommended by Hindelang, Hirschi, and Weis (1981); Osgood, McMorris, and Potenza (2002, p. 275) further note it has some advantages in that less serious and more serious behaviors are equally weighted, higher scores can only be achieved by engaging in the more serious behaviors, and skewness is reduced compared to a fully additive frequency scale.[6]

ANALYTICAL STRATEGY

Similar to prior research on gender and GST (Jang, 2007; Piquero & Sealock, 2004; Sharp et al., 2001, 2005), I conducted regression analyses (logistic and linear as appropriate) following the theoretical argument of general strain theory (strain→negative emotions), (strain→deviance), and (strain→negative emotions→deviance) using separate equations for males and females. I tested for significant gender differences across equations using the formula recommended by Paternoster, Brame, Mazerolle, and Piquero (1998). Tests for multicollinearity indicated that it was not a problem in any of the equations.

[5]Add Health interviewers recorded if someone was present at the interview in addition to the respondent (parent, sibling, cousin etc.). If any other person was present, the respondents reported lower levels of deviant behaviors compared to respondents with no one else present. Thus, I have kept this as a dichotomous measure to capture that issue.

[6]While I use OLS for modeling violence, I also re-ran all equations as negative binomial regressions and the results were virtually identical to the OLS.

The first two sets of models examined the impact of serious strain on the two measures of negative emotions: depressive symptoms and bad temper. Although the average depressive symptoms measure is positively skewed with 1% of individuals falling in the higher end of the spectrum (1.84–2.84), only 1% had the lowest 0 scores (no symptoms). Because this measure does not seriously depart from normality and reflects the average range of psychological distress, I follow the lead of other researchers in using OLS for the analyses with depressive symptoms as the dependent variable (see Hagan & Foster, 2001, 2003; Harker, 2001; Meadows, 2007; Turner & Lloyd, 1999).[7]

All additional equations involved longitudinal regressions with each measure of deviance (wave 2) as the dependent variable (controlling for wave 1 deviance) and groups of independent variables entered in blocks to demonstrate appropriate mediating effects. This method of entering independent variables in blocks is consistent with prior research on general strain theory (see Jang & Johnson, 2003, 2005; Piquero & Sealock, 2000, 2004). All analyses are weighted for the widely different probabilities of selection, and all analyses are adjusted for the clustered survey design using the statistical package SUDAAN. Because of the large number of statistical tests increasing the probability of making Type 1 errors, I largely focus on regression coefficients that are significant at $p<.01$ and gender differences ($p<.05$) across equations that make substantive sense and that are robust across multiple models.

RESULTS

DESCRIPTIVE RESULTS

Descriptive results from Table 1 indicate that there are few gender differences in the main demographic variables. Most of the measures from general strain theory, however, are significantly different by gender. The proportion of females who have a friend/family member who attempted/completed a suicide over the prior year was more than 1.73 times that of males (F .26 vs. M .15). Given the gendered nature of friendship networks such that most are gender segregated (Bottcher, 1995;Thorne & Luria, 1986), this finding is not surprising and is consistent with national statistics on suicide attempts (CDC, 2006). Also consistent with national statistics on violent victimization overall (Rennison, 2001), males are about 1.7 times more likely to be violently victimized than females (M .27 vs. F .16). Both of these findings support Hypothesis 1 on the gendering of certain types of strain.

Females report a significantly higher average of depressive symptoms (F .61 vs. M .52 on a range from 0–2.84), a finding consistent with all the sociology of mental health literature (Mirowsky & Ross, 2003). While there is a small gender difference in the proportion of youth whose parents reported them as having a bad temper (M .32 vs. F .30), that difference is not statistically significant. Table 1 also shows few gender differences in variables from other theories.

All but one of the measures of deviant outcomes are significantly different by gender (See Table 1). Females have a significantly higher proportion of suicidal thoughts at both time 1 (F .16 vs. M .10) and time 2 (F .15 vs. M .08), consistent with the national self-report statistics (CDC, 2006). Males report a significantly higher proportion of weekly drinking at time 1 (M . 10 vs. F .06) and time 2 (M .13 vs. F .09), consistent with national self-report statistics on more serious drinking behaviors (CDC, 2006). The gender differences for running away at time 1 are not significant (F .08 vs. M .07), but the differences are significant at time 2 (F .07 vs. M . 05). Males report a significantly higher participation in different types of violence at both time

[7]I re-ran all equations with depressive symptoms as a dependent variable as tobit regressions to allow for both right and left censoring of the dependent variable. These results were essentially identical to those with OLS. To be consistent with other literature I have presented the OLS results.

1 (M .81 vs. F .39) and time 2 (M .50 vs. F .22), consistent with statistics from many self-report datasets (CDC, 2006;Snyder & Sickmund, 2006). In addition, the decrease in violence for both males and females from time 1 to time 2 is consistent with the decline in youth violence that occurred during the mid-1990's (Snyder & Sickmund, 2006). Overall, the descriptive statistics are consistent with prior research and hypothesis 1.

IMPACT OF STRAINS ON NEGATIVE EMOTIONS

The following two tables include models examining the impact of strain on the two negative emotions to test hypothesis 2. In Table 2, I present two sets of logistic regression models examining the impact of blocks of theoretically relevant variables on bad temper, the measure of trait based anger, to examine the first part of the general strain theory argument (strain→negative emotion). For ease of interpretation, I present the odds ratios in the text such that odds ratios over 1 reflect a positive relationship while odds ratios that are less than 1 reflect a negative relationship; the unstandardized coefficients and standard errors are reported in the table. Model 1 includes the demographic variables and two measures of strain in separate male and female equations. Most of the demographic variables act similarly for males and females. Knowing friends/family who were suicidal is significantly associated with having a bad temper for females (OR=1.19), but is not significant for males. Violent victimization is significantly associated with having a bad temper for both males (OR=1.56) and females (OR=1.81) and this is a fairly strong relationship that is consistent across gender. Neither of these results is significantly different by gender. The inclusion of other theoretically relevant measures in model 2 reduces the size of the strain coefficients but all measures act similarly across gender. These results provide evidence for the general strain argument and confirm Hypothesis 2b (the relationship between strain and anger is similar across gender). I cannot rule out alternate causal ordering (bad temper leading to higher levels of victimization etc.) because these equations are cross-sectional.[8]

Similar to the presentation of results for bad temper, Table 3 includes two sets of OLS models in separate gender equations to examine the impact of serious strains on the scale of depressive symptoms. While all of the measures are from time 1, the questions on depression were asked about the prior week while all other questions (except bad temper) were asked about the prior year. Thus, the causal ordering is built into the measures although there may be overlap in those seven days. The demographic controls are largely consistent by gender and prior research in the U.S. (Mirowsky & Ross, 2003). Others being present at the interview had no significant effect on females' reporting depressive symptoms, but males were significantly less likely than females to report depressive symptoms. This result suggests that the interview process itself is gendered. Both measures of strain (friend/family suicidal behavior, violent victimization) predict significantly higher levels of depressive symptoms for both males and females, and the effects are significantly stronger for females. This finding is particularly important in confirming Hypothesis 2a, that the relationship between strain and non-angry negative emotions is stronger for females.

Model 2 in Table 3 illustrates that the strain processes are only one part of the explanation for depressive symptoms. Not surprising given the extensive research on depressive symptoms in the sociology of mental health (see Mirowsky & Ross, 2003), the other theoretical controls including social support, school attachments, GPA, and deviant friends are all significantly associated with depressive symptoms for males and females. Social support is by far the most important variable with a negative association with depressive symptoms for males (b=−.14) and females (b=−.21). However, social support has a significantly stronger impact on reducing

[8]The measure of bad temper in Add Health is only asked of the parent at time 1 and there is no time frame specified making causal ordering problematic. A measure of situational anger would be preferable theoretically and allow for greater specification of causal order.

depression among females than males, again pointing to key gender differences in the processes leading to negative emotions. Both measures of strain retain their significant association with depressive symptoms for both males and females with the presence of the other theoretical controls. However, the effects of the strain measures are no longer significantly different by gender, and the other theoretical controls add a very large amount to the explained variance (M +15% from .12 to .27, F +21% from .10 to .31). Thus, while the GST explanation may be relevant for understanding depressive symptoms, traditional mental health variables like social support are clearly very important.

IMPACT OF STRAINS AND NEGATIVE EMOTIONS ON DEVIANCE

The following four tables include the results for each of the four measures of deviance as dependent variables to test Hypothesis 3. Table 4 includes three sets of models examining the impact of blocks of variables and potential mediating effects on suicidal thought at time 2 controlling for suicidal thought at time 1. Most of the demographic variables are not significant across all models for males or females. Similar to the gender effect in Table 3, males are significantly less likely than females to report suicidal thoughts when others are present at the interview.

Turning to the theoretical variables in Table 4, having friends/family with suicidal behavior is strongly linked with suicidal thoughts for males and females across all models. Surprisingly, violent victimization is not associated with suicidal thought in any models. The addition of the two negative emotions in model 2 has very little effect on reducing the size of the coefficients of the strain variables suggesting only small mediation effects. However, depressive symptoms are a very powerful predictor of suicidal thoughts for both males and females (M OR=1.95, F OR=2.49). In model 3, the majority of the additional theoretical variables are not significant for either males or females. Social support, however, is significantly more important for reducing male suicidal thoughts (OR=.69) than females (OR=.88). Although females are more likely to experience suicidal ideation as shown in the descriptive results, the models in Table 4 do not conform to Hypothesis 3a in that the processes leading to suicidal thought are not clearly gendered.

In Table 5, weekly drinking at time 2 is regressed on weekly drinking at time 1, controls, and the theoretical variables of interest in three sets of models. Most of the demographic variables do not achieve significance consistently across the three models. In model 1, both measures of strain are significantly associated with weekly drinking for both males and females. With the addition of the two measures of negative emotions in model 2, both measures of strain are still significant for males and show little evidence of mediation effects. Bad temper has a powerful effect (OR=1.50) on weekly drinking among males while depressive symptoms have no effect. On the contrary, depressive symptoms (OR=1.80) appear to mediate the impact of violent victimization and friend/family suicidal behavior on weekly drinking among females. In addition, depressive symptoms have a significantly stronger impact on weekly drinking among females than males confirming hypothesis 3a. In the final models in Table 5 including other theoretical controls, deviant friends is clearly an important variable for both males (OR=1.24) and females (OR=1.24) supporting the important role of peers in encouraging drinking behaviors.

Table 6 includes three sets of models with running away at time 2 regressed on running away at time 1, and the same blocks of variables used in prior analyses. Most of the demographic variables are not significantly associated with running away for both males and females across all equations. In model 1, both measures of strain are significantly associated with running away for females with violent victimization significant for males. Depressive symptoms are significantly associated with running away for both males and females in model 2 of Table 6. In addition, the size of the coefficients for both types of strain are reduced for both genders

supporting the mediating effect of depressive symptoms. While these analyses clearly support general strain theory processes, they do not support Hypothesis 3a.

In model 3 of Table 6, social support (OR=.65) and GPA (OR=.58) are both significantly negatively associated with running away for females in model 3, and this relationship is significantly stronger than for males where these two variables are not significant. As my focus was on the primary general strain processes, I did not make any explicit hypotheses about the theoretical controls. However, these gender differences suggest that females may be more responsive to social support and social control processes when it comes to running away.

The three sets of models for violence at time 2 regressed on violence at time 1, controls, and the theoretical variables of interest are shown in Table 7. Few demographic variables are consistently associated with violence across all three models. Across all three sets of models, violent victimization is the most important substantive variable for both males and females. However, violent victimization has a significantly stronger impact on male violence than on female violence across all three models. This result is consistent with some prior research (Mazerolle, 1998) and supports Hypothesis 3b about males being more likely to respond to strain and negative emotions with confrontational deviance. In model 2, bad temper is only significant for males while depressive symptoms is only significant for females. However, those differences are not significant across gender and there appears to be no mediation effect.

In the final model of Table 7, the measure of deviant friends is significantly positively associated with violence for males and females, and deviant friends have a significantly stronger effect on male violence than female violence. The difference in the size of the coefficients, however, is not very large.

DISCUSSION

The purpose of this paper was to expand and build on three newer avenues in research on gender and general strain theory to explore how gender matters in the strain-deviance process. In this manner, this paper contributes specifically to the developing literature on gender and GST and to the broader literature on gender and deviance. I examine three hypotheses about gendering in types of strain, experience of negative emotions, and the full pathway linking strain to negative emotions and different types of deviance. The first two hypotheses are clearly supported such that the experiences of serious strain and the resulting negative emotions are gendered. The evidence for the third hypothesis is more mixed such that there is some evidence of gendering in the pathways leading to two of the deviant outcomes where males have higher levels of participation (weekly drinking, violence). However, there is limited evidence for gendering in the pathways leading to types of deviance where females have higher levels of participation (suicidal ideation, running away). In other words, the strain processes leading to these types of deviance are more similar across gender. These results speak to two larger issues in the literature on gender and crime: the explanation of female deviance with mainstream criminological theories (the generalizability problem, Daly & Chesney-Lind, 1988: 514–515), and the influence of gender on creating some unique pathways to deviance (see Miller & Mullins, 2006).

These analyses provide strong evidence for the importance of serious strain, suicidal behavior of friends/family and violent victimization, in the pathways leading to both angry and non-angry negative emotions (depressive symptoms) and various types of deviant behaviors for adolescent males and females. The support for my first two hypotheses demonstrates clear gender differences in the experiences of serious strain and negative emotions in ways we would expect from various literatures. However, these differences support both the utility of the concepts from general strain theory in explaining deviance by males and females (i.e., measures

of strain and negative emotions can be gender-sensitive) and the importance of considering how gender is implicated in the pathways to deviance. While there is some evidence that different types of strain lead to certain types of negative emotions and deviance, there is also strong evidence for the general impact of serious strains (particularly violent victimization) that are relevant for males and females.

The mixed support for gender differences in the pathways from strain and negative emotions to the four types of deviance provides further evidence in support of the generalizability of general strain theory. However, it also suggests the importance of thinking and theorizing about when and how gender may matter in the pathways leading to crime (Miller & Mullins, 2006: 227). The pathways leading to the two forms of deviance with higher female participation (running away and suicidal ideation) are the two pathways where the impact of strain and negative emotions on these forms of deviance are not significantly different by gender. What does this tell us? Non-angry negative emotions (depressive symptoms) are predictive of suicidal thought and running away for both males and females while the measure of anger (bad temper) has no effect on either outcome. Most of the research on general strain theory has emphasized anger and traditional delinquency (scales of property and violent crimes). The call to examine other types of negative emotions and other types of deviant outcomes has largely been driven by a concern with gender differences. Examining these emotions and alternate outcomes, however, may provide for a fuller understanding of the pathways leading to many forms of both male and female deviance.

Even with some similarities in the strain process, the gendering of this process is heavily linked with the experience of depressive symptoms. While prior research provides ample evidence for the higher levels of depressive symptoms among females (Mirowsky & Ross, 2003), very few researchers have examined or found evidence for the importance of depressive symptoms in the pathways leading to multiple types of deviance for females. While a number of researchers examining general strain theory have included measures of depressive symptoms in their research (Jang & Johnson, 2005; Piquero & Sealock, 2004; Sigfusdottir et al., 2004), these researchers were limited in their examination of gendered outcomes due to small datasets that were insufficient to allow for the examination of specific types of deviance (except see Sharp et al., 2001, 2005). Composite scales of delinquency appear to obscure the gendered impact of depressive symptoms. By conducting separate analyses for males and females and including gender sensitive outcomes, I find that depressive symptoms are positively predictive of all forms of deviance for females (suicidal thoughts, weekly drinking, running away, violence), but only some forms of deviance for males (suicidal thoughts, running away). While the direct impact of depressive symptoms on these outcomes sometimes disappears with the addition of other theoretical measures (particularly social support), this may provide additional evidence for more complex pathways leading to female deviance rather than a spurious relationship. For example, Agnew (2006b: 38) has recently argued for a more nuanced analysis of how strain may lead to crime through multiple pathways including negative emotions, the temporary reduction of forms of social control, and the temporary fostering of the social learning of crime. These newer proposed pathways in the strain-deviance process are likely to be important for future research and may shed additional light on the gendering in these processes.

Related to the examination of negative emotions, this research found little evidence of these measures of emotion mediating between serious strain and the measures of deviant outcomes. There are two likely explanations for this. First, these measures of emotion are not directly tied to the measures of strain. Research that has measures of anger and other emotions that are directly linked with the experience of strain tend to show fairly strong evidence for mediating effects (see Jang & Johnson, 2003, 2005). Second, very serious strains, like violent victimization, have such a powerful effect on individuals that the effects are experienced

through multiple pathways that may or may not include negative emotions such as social learning processes that were not directly measured in this research. While I controlled for association with deviant friends, violent victimization provides the opportunity to learn definitions favorable to law violation and the opportunity to learn and imitate the behavior (Akers, 1998). The newer strain pathways recently proposed by Agnew (2006b) allow for an examination of this more complex process.

On a side note, the interview process itself is gendered such that males are much less likely to report non-stereotypically masculine emotions (depressive symptoms) and deviance (suicidal thoughts) when others are present at the interview. This does not seem to be an issue for females, at least for the emotions and behaviors examined here. While these are not large effects, they do suggest that survey researchers should be sensitive to gender issues in the process of the interview itself.

While this research has some key contributions, I do not want to ignore some of the limitations. Add Health is drawn from a general population of school-enrolled youth. High risk youth who may not be enrolled in school are more likely to have greater experiences with both serious strain and with multiple types of deviant behaviors. I have focused on limited measures of very serious forms of strain. However, there are certainly other forms of strain that may be relevant for gender and deviance (see work on pubertal timing by various scholars). The measure of bad temper does not allow for an assessment of situational anger which is clearly important in the strain process. In addition, while the measure of depressive symptoms is the main one used in the broader mental health field, there are many other forms of negative emotions that I was unable to examine. For example, fear, anxiety, and guilt may be particularly important. Although aspects of these other emotions are in the depressive symptoms scale, they do not allow for a fuller examination.

This paper also does not offer a full test of gender and general strain theory. Other researchers have more strongly developed a focus on multiple types of strain (Jang 2007; Mazerolle, 1998), multiple factors that condition this relationship (Jang, 2007; Jang & Johnson, 2005), and legitimate coping strategies and resources (Broidy, 2001; Jang, 2007; Piquero & Sealock, 2004). Finally, although the longitudinal nature of this research allows more confidence in the findings, I have not ruled out alternate causal pathways.

In conclusion, this research provides support for general strain theory across multiple negative emotions and multiple deviant outcomes for both males and females. The inclusion of depressive symptoms and gender sensitive deviant outcomes appears to be critical to understand the pathways to female deviance as well as male deviance. While there are many similarities across gender in these pathways, there is also evidence of gendering in the process. Future research should continue to include both internalizing and externalizing negative emotions as well as examine additional forms of gender sensitive deviance. These results support the utility of GST as a theory of deviance in general and support greater connections and overlap between GST and feminist theorizing on deviance and GST and the sociology of mental health. Future research should continue to build on these connections to develop a fuller understanding of gender and deviance.

Biography

Joanne M. Kaufman, Ph.D. is an assistant professor of sociology at the University at Albany-SUNY in Albany, NY. Her current research focuses on using general strain theory and other social psychological theories of criminality to explain criminal and deviant behavior with a particular concern towards the impact of inequalities (race/ethnicity, gender) on these processes.

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Table 1

Descriptive Statistics and Mean/Proportion Comparisons by Gender

Variable	Full Sample (*n*=12,018)			Females (*n*=6217)		Males (*n*=5801)	
	Mean	Range	SE[a]	Mean	SE[a]	Mean	SE[a]
Demographics:							
Age	14.99	11–21	.11	14.91	.12	15.01***	.12
Public Assistance	.11	0/1	.01	.11	.01	.11	.01
Mother's Education	2.66	1–5	.05	2.63	.05	2.68	.05
Single-Parent Family	.29	0/1	.01	.31	.01	.28*	.01
White	.67	0/1	.03	.67	.03	.67	.03
Latino/a	.11	0/1	.02	.11	.02	.11	.02
Black	.14	0/1	.02	.15	.02	.14	.02
Asian	.03	0/1	.01	.03	.01	.04	.01
Other Race	.04	0/1	.00	.04	.00	.04	.01
Others Present at Interview	.19	0/1	.01	.20	.01	.19	.01
Theoretical Measures:							
Friend/Family Suicidal Behavior	.21	0/1	.01	.26	.01	.15***	.01
Violent Victimization	.22	0/1	.01	.16	.01	.27***	.01
Depressive Symptoms	.57	0–2.84	.01	.61	.01	.52***	.01
Bad Temper	.31	0/1	.01	.30	.01	.32	.01
Social Support	4.62	1.57–5.71	.02	4.64	.02	4.60	.02
School Attachment	3.78	1–5	.02	3.78	.02	3.78	.02
GPA	2.81	1–4	.02	2.92	.03	2.71***	.03
Deviant Friends	2.38	0–9	.09	2.33	.09	2.44	.10
Deviant Outcomes:							
Suicidal Thoughts T1	.13	0/1	.00	.16	.01	.10***	.01
Suicidal Thoughts T2	.12	0/1	.00	.15	.01	.08***	.01
Weekly Drinking T1	.08	0/1	.00	.06	.01	.10***	.01
Weekly Drinking T2	.11	0/1	.01	.09	.01	.13***	.01
Running away T1	.08	0/1	.00	.08	.01	.07	.01

Variable	Full Sample (*n*=12,018)			Females (*n*=6217)		Males (*n*=5801)	
	Mean	Range	SE[a]	Mean	SE[a]	Mean	SE[a]
Running away T2	.06	0/1	.00	.07	.01	.05**	.00
Violence T1	.60	0–4	.02	.39	.02	.81***	.02
Violence T2	.36	0–4	.01	.22	.01	.50***	.02

[a] Because these statistics are weighted and adjusted for survey design, standard errors are produced rather than standard deviations.

* $p<.05$

** $p<.01$

*** $p<.001$ denote significant gender comparisons with two-tailed *t*-tests.

Table 2

Bad Temper Regressed on Serious Strain and Controls

	Model 1				Model 2			
	Males		Females		Males		Females	
Variables	***b*** **(SE*b*)**	**OR**	***b*** **(SE*b*)**	**OR**	***b*** **(SE*b*)**	**OR**	***B*** **(SE*b*)**	**OR**
Intercept	−.61	.55	−1.01**	.37	2.79***	16.31	2.39***	10.91
	(.41)		(.35)		(.59)		(.62)	
Age	.01	1.01	.03	1.03	−.07**	.93	−.04	.96
	(.03)		(.02)		(.02)		(.03)	
Public Assistance	.32**	1.37	.21	1.24	.25*	1.28	.15	1.16
	(.12)		(.11)		(.12)		(.11)	
Mother's Education	−.18***	.83	−.22***	.80	−.14***	.87	−.17***	.84
	(.03)		(.04)		(.03)		(.04)	
Single-Parent Family	.25**	1.29	.27***	1.31	.12	1.13	.19*	1.20
	(.08)		(.08)		(.09)		(.08)	
Latino/a[a]	−.18	.83	.26*[c]	1.29	−.15	.86	.26*[c]	1.30
	(.13)		(.12)		(.13)		(.13)	
Black[a]	−.32**	.73	.05[c]	1.05	−.27**	.76	.04[c]	1.05
	(.10)		(.12)		(.10)		(.14)	
Asian[a]	.09	1.10	−.23	.79	.22	1.25	−.12	.88
	(.22)		(.26)		(.22)		(.26)	
Other Race[a]	.40*	1.50	.35	1.42	.32	1.38	.31*	1.36
	(.19)		(.19)		(.20)		(.20)	
Others Present at	.03	1.03	.17*	1.18	.05	1.05	.16	1.18
Interview	(.09)		(.08)		(.09)		(.09)	
Friend/Family Suicidal	.10	1.11	.17*	1.19	−.05	.95	.02	1.02
Behavior	(.11)		(.09)		(.11)		(.09)	
Violent Victimization	.45***	1.56	.59***	1.81	.20*	1.22	.35**	1.42
	(.08)		(.11)		(.09)		(.11)	

	Model 1				Model 2			
	Males		Females		Males		Females	
Variables	***b*** **(SE*b*)**	**OR**	***b*** **(SE*b*)**	**OR**	***b*** **(SE*b*)**	**OR**	***B*** **(SE*b*)**	**OR**
Depressive Symptoms					.02	1.02	.12	1.12
					(.12)		(.10)	
Social Support					−.35***	.70	−.37***	.69
					(.07)		(.08)	
School Attachment					−.01	.99	−.03	.97
					(.05)		(.05)	
GPA					−.27***	.76	−.29***	.75
					(.05)		(.06)	
Deviant Friends					.07***	1.08	.05*	1.05
					(.02)		(.02)	
-2 LL	7060.72		7328.63		6868.77		7105.10	
pseudo[d] R^2	.03		.05		.06		.08	

*p<.05

**p<.01

***p<.001

[a] White is the reference category for all race/ethnic groups.

[b] Because these statistics are weighted and adjusted for survey design, standard errors are produced rather than standard deviations.

[c] Coefficients for males and females are significantly different in parallel models at p<.05 using the method recommended by Paternoster, Brame, Mazerolle, and Piquero (1998).

[d] The statistical program SUDAAN computes an R^2 for logistic regressions as a generalized coefficient of determination from Cox and Snell (1989).

NOTE: This table includes unstandardized coefficients (standard errors) and Odds Ratios from Logistic Models.

Table 3

Depressive Symptoms Regressed on Serious Strain and Controls

	Model 1		Model 2	
	Males	Females	Males	Females
Variables	***b*** **(SE*b*)**	***b*** **(SE*b*)**	***b*** **(SE*b*)**	***b*** **(SE*b*)**
Intercept	.09 (.07)	0.15 (.07)*	1.40 (.10)***	1.99 (.09)*** *c*
Age	.03 (.00)***	.03 (.00)***	.01 (.00)**	.00 (.00)
Public Assistance	.09 (.02)***	.03 (.02)*c*	.07 (.02)***	.01 (.02)*c*
Mother's Education	−.03 (.00)***	−.04 (.01)***	−.02 (.00)***	−.02 (.01)**
Single-Parent Family	.04 (.01)**	.04 (.01)**	.01 (.01)	.00 (.01)
Latino/a[a]	.04 (.02)	.05 (.03)	.05 (.02)**	.06 (.02)*
Black[a]	.06 (.02)**	.05 (.02)*	.08 (.02)***	.04 (.02)* *c*
Asian[a]	.13 (.03)***	.15 (.04)***	.14 (.03)***	.18 (.03)***
Other Race[a]	.11 (.03)***	.03 (.05)	.08 (.03)**	.01 (.04)
Others Present at Interview	−.03 (.01)	.02 (.02)*c*	−.02 (.01)	.02 (.02) *c*
Friend/Family Suicidal Behavior	.10 (.02)***	.14 (.01)*** *c*	.06 (.02)**	.07 (.01)***
Violent Victimization	.13 (.01)***	.19 (.02)*** *c*	.06 (.01)***	.08 (.02)***
Bad Temper			.00 (.01)	.02 (.01)
Social Support			−.14 (.01)***	−.21 (.01)*** *c*
School Attachment			−.08 (.01)***	−.08 (.01)***
GPA			−.04 (.01)***	−.06 (.01)***
Deviant Friends			.01 (.00)*	.01 (.00)***
R^2	.12	.10	.27	.31

*p<.05

**p<.01

***p<.001

[a]White is the reference category for all race/ethnic groups.

[b]Because these statistics are weighted and adjusted for survey design, standard errors are produced rather than standard deviations.

[c]Coefficients for males and females are significantly different in parallel models at p<.05 using the method recommended by Paternoster, Brame, Mazerolle, and Piquero (1998).

NOTE: This table includes unstandardized coefficients (standard errors) from OLS models.

Table 4

Suicidal Thought T2 Regressed on Serious Strain, Negative Emotions, and Controls

	Model 1				Model 2				Model 3			
	Males		Females		Males		Females		Males		Females	
Variables	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**
Intercept	−3.04(.70)***	.05	−.16(.67) *c*	.85	−3.14(.70)***	.04	−.32(.71) *c*	.72	−.70(.99)	.50	.75(1.03)	2.12
Suicidal Thought T1	2.23(.14)***	9.32	1.82(.11)*** *c*	6.17	2.01(.16)***	7.47	1.51(.12)*** *c*	4.54	1.98(.16)***	7.23	1.49(.12)*** *c*	4.42
Age	.03(.04)	1.03	−.16(.04)*** *c*	.85	.00(.04)	1.00	−.19(.05)*** *c*	.82	−.01(.05)	.99	−.20(.05)*** *c*	.82
Public Assistance	−.15(.26)	.86	.13(.19)	1.14	−.22(.26)	.80	.10(.20)	1.10	−.28(.26)	.76	.08(.20)	1.09
Mother's Education	−.08(.07)	.92	−.00(.05)	1.00	−.05(.07)	.95	.05(.05)	1.05	−.04(.07)	.96	.06(.05)	1.07
Single-Parent Family	.09(.13)	1.10	.15(.12)	1.16	.05(.13)	1.05	.11(.12)	1.11	.01(.14)	1.01	.09(.12)	1.10
Latino/a[a]	.17(.21)	1.19	−.06(.17)	.94	.15(.22)	1.16	−.12(.16)	.89	.16(.22)	1.17	−.14(.17)	.87
Black[a]	−.51(.21)*	.60	−.34(.17)*	.71	−.52(.21)*	.60	−.42(.17)*	.66	−.52(.21)*	.59	−.44(.18)**	.64
Asian[a]	−.21(.35)	.81	.21(.28)	1.23	−.28(.35)	.76	.09(.28)	1.09	−.25(.35)	.78	.11(.28)	1.12
Other Race[a]	.34(.31)	1.40	.05(.30)	1.06	.26(.30)	1.30	.01(.29)	1.01	.22(.31)	1.25	.01(.29)	1.01
Others Present	−.52(.20)*	.59	.10(.13) *c*	1.10	−.51(.21)*	.60	.09(.13) *c*	1.10	−.50(.21)*	.61	.09(.13) *c*	1.10
Friend/Fam. Suicidal	.39(.16)*	1.48	.66(.11)***	1.93	.36(.17)*	1.43	.60(.11)***	1.82	.34(.17)*	1.41	.60(.11)***	1.82
Violent Victimization	.06(.16)	1.06	.30(.15)	1.35	−.02(.16)	.98	.16(.16)	1.17	−.07(.15)	.93	.15(.16)	1.16
Depressive Symptoms					.67(.21)***	1.95	.91(.14)***	2.49	.44(.20)*	1.56	.82(.15)***	2.27
Bad Temper					.16(.16)	1.17	.16(.13)	1.17	.10(.17)	1.10	.12(.14)	1.13
Social Supp.									−.37(.11)**	.69	−.12(.09) *c*	.88
School Att.									.03(.08)	1.03	.01(.07)	1.01
GPA									−.16(.10)	.85	−.14(.08)	.87
Deviant Fr.									−.02(.03)	.98	−.01(.02)	.99
-2 LL	2861.07		4466.07		2835.84		4363.71		2812.01		4354.19	

	Model 1				Model 2				Model 3			
	Males		Females		Males		Females		Males		Females	
Variables	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**
pseudo [d] R^2	.08		.11		.08		.12		.08		.13	

*p<.05

**p<.01

***p<.001

[a] White is the reference category for all race/ethnic groups.

[b] Because these statistics are weighted and adjusted for survey design, standard errors are produced rather than standard deviations.

[c] Coefficients for males and females are significantly different in parallel models at p<.05 using the method recommended by Paternoster, Brame, Mazerolle, and Piquero (1998).

[d] The statistical program SUDAAN computes an R^2 for logistic regressions as a generalized coefficient of determination from Cox and Snell (1989).

NOTE: This table includes unstandardized coefficients (standard errors) and Odds Ratios from Logistic Models.

Table 5

Weekly Drinking T2 Regressed on Serious Strain, Negative Emotions, and Controls

	Model 1				Model 2				Model 3			
	Males		Females		Males		Females		Males		Females	
Variables	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**
Intercept	−6.92(.59)***	.00	−5.24(.70)*** *c*	.01	−7.10(.59)***	.00	−5.50(.70)*** *c*	.00	−5.29(.89)***	.01	−4.45(.91)***	.01
Weekly Drinking T1	1.81(.13)***	6.09	2.15(.16)*** *c*	8.63	1.81(.13)***	6.10	2.07(.16)***	7.89	1.35(.13)***	3.87	1.55(.15)***	4.71
Age	.30(.04)***	1.35	.17(.04)*** *c*	1.18	.30(.03)***	1.35	.16(.04)*** *c*	1.17	.22(.04)***	1.24	.10(.04)* *c*	1.11
Public Assistance	−.56(.17)**	.57	−.42(.23)	.66	−.59(.16)***	.55	−.44(.23)	.64	−.60(.17)***	.55	−.58(.23)*	.56
Mother's Education	−.02(.06)	.98	−.00(.06)	1.00	−.00(.06)	1.00	.02(.06)	1.02	.01(.06)	1.01	.02(.06)	1.02
Single-Parent Family	.25(.14)	1.29	−.12(.15)*c*	.89	.23(.14)	1.26	−.16(.15)*c*	.85	.08(.14)	1.08	−.26(.16)	.77
Latino/a*a*	.08(.15)	1.08	−.33(.21)	.72	.09(.15)	1.09	−.39(.21)*c*	.68	.18(.16)	1.20	−.28(.22)*c*	.76
Black*a*	−.51(.17)**	.60	−.61(.23)**	.54	−.48(.17)**	.62	−.65(.23)**	.52	−.35(.18)	.70	−.39(.23)	.68
Asian*a*	−.62(.49)	.54	−1.04(.48)*	.35	−.64(.49)	.52	−1.11(.47)*	.33	−.44(.51)	.65	−.94(.45)*	.39
Other Race*a*	−.49(.32)	.61	.15(.33)	1.16	−.56(.32)	.57	.11(.31)	1.11	−.49(.32)	.61	.08(.33)	1.09
Others Present	−.18(.14)	.83	−.25(.15)	.78	−.19(.14)	.83	−.28(.15)	.76	−.18(.14)	.84	−.26(.16)	.77
Friend/Fam. Suicidal	.39(.13)**	1.48	.59(.13)***	1.80	.37(.13)**	1.45	.50(.14)***	1.65	.19(.14)	1.21	.32(.14)*	1.38
Violent Victimization	.44(.13)**	1.55	.47(.16)**	1.60	.40(.13)**	1.49	.34(.17)*	1.41	.11(.15)	1.12	.18(.18)	1.20
Depressive Symptoms					.05(.16)	1.06	.59(.15)***c	1.80	−.22(.18)	.80	.31(.17)*c*	1.37
Bad Temper					.40(.11)***	1.50	.19(.17)	1.21	.24(.10)*	1.27	.06(.16)	1.06
Social Supp.									−.12(.10)	.88	−.13(.09)	.87
School Att.									.05(.07)	1.05	−.00(.09)	1.00
GPA									−.17(.08)*	.85	.02(.11)	1.03
Deviant Friends									.21(.02)***	1.24	.21(.03)***	1.24
-2 LL	3862.61		3168.26		3841.10		3134.86		3666.09		3005.32	

	Model 1				Model 2				Model 3			
	Males		Females		Males		Females		Males		Females	
Variables	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**
pseudo[d] R^2	.11		.07		.12		.08		.14		.10	

* $p<.05$

** $p<.01$

*** $p<.001$

[a] White is the reference category for all race/ethnic groups.

[b] Because these statistics are weighted and adjusted for survey design, standard errors are produced rather than standard deviations.

[c] Coefficients for males and females are significantly different in parallel models at $p<.05$ using the method recommended by Paternoster, Brame, Mazerolle, and Piquero (1998).

[d] The statistical program SUDAAN computes an R^2 for logistic regressions as a generalized coefficient of determination from Cox and Snell (1989).

NOTE: This table includes unstandardized coefficients (standard errors) and Odds Ratios from Logistic Models.

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Table 6

Running Away T2 Regressed on Serious Strain, Negative Emotions, and Controls

	Model 1				Model 2				Model 3			
	Males		Females		Males		Females		Males		Females	
Variables	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**
Intercept	−2.26(.75)**	.10	−2.76(.84)**	.06	−2.46(.77)**	.09	−3.09(.87)***	.05	−2.82(1.22)*	.06	.97(1.07)[c]	2.64
Running Away T1	2.24(.20)***	9.42	2.61(.18)***	13.60	2.06(.19)***	7.82	2.46(.18)***	11.68	2.07(.20)***	7.91	2.31(.18)***	10.09
Age	−.07(.05)	.93	−.04(.05)	.97	−.09(.05)	.92	−.06(.05)	.94	−.11(.05)*	.90	−.11(.05)*	.90
Public Assistance	−.18(.27)	.84	.09(.20)	1.10	−.26(.28)	.77	.07(.21)	1.07	−.26(.28)	.77	.00(.20)	1.00
Mother's Education	−.18(.09)*	.84	−.08(.06)	.92	−.15(.09)	.86	−.04(.06)	.96	−.12(.09)	.89	−.01(.07)	.99
Single-Parent Family	.53(.17)**	1.70	.20(.15)	1.22	.48(.17)**	1.62	.14(.15)	1.15	.49(.17)**	1.63	.02(.15)[c]	1.02
Latino/a[a]	.29(.20)	1.34	.12(.23)	1.13	.29(.20)	1.33	.06(.23)	1.07	.25(.20)	1.29	.04(.23)	1.04
Black[a]	−.08(.22)	.92	−.30(.26)	.74	−.10(.23)	.91	−.35(.26)	.71	−.16(.24)	.85	−.30(.25)	.74
Asian[a]	.19(.32)	1.21	.20(.29)	1.22	.11(.31)	1.11	.11(.31)	1.11	.17(.31)	1.19	.28(.32)	1.32
Other Race[a]	.21(.51)	1.24	.51(.37)	1.67	.07(.51)	1.07	.46(.38)	1.58	.05(.51)	1.05	.50(.36)	1.64
Others Present	.14(.17)	1.15	.40(.20)*	1.50	.15(.17)	1.16	.39(.19)*	1.47	.15(.17)	1.17	.39(.20)*	1.48
Friend/Fam. Suicidal	.39(.21)	1.48	.34(.16)*	1.41	.32(.21)	1.38	.24(.16)	1.27	.31(.21)	1.36	.19(.16)	1.21
Violent Victimization	.42(.16)*	1.52	.48(.17)**	1.61	.33(.17)	1.39	.33(.17)	1.39	.30(.17)	1.36	.22(.18)	1.24
Depressive Symptoms					.71(.21)**	2.03	.83(.17)***	2.30	.85(.26)**	2.33	.41(.20)*	1.50
Bad Temper					.34(.18)	1.40	.31(.16)*	1.37	.31(.18)	1.36	.16(.15)	1.18
Social Supp.									.02(.15)	1.02	−.43(.13)** [c]	.65
School Att.									.24(.12)*	1.28	.09(.09)	1.09
GPA									−.21(.13)	.81	−.54(.10)*** [c]	.58
Deviant Friends									.03(.04)	1.03	.05(.03)	1.05

	Model 1				Model 2				Model 3			
	Males		Females		Males		Females		Males		Females	
Variables	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**	***b*(SE*b*)**	**OR**
-2 LL	2073.26		2605.61		2048.46		2547.87		2032.83		2455.82	
pseudo[d] R^2	.06		.10		.06		.10		.06		.12	

* $p<.05$

** $p<.01$

*** $p<.001$

[a] White is the reference category for all race/ethnic groups.

[b] Because these statistics are weighted and adjusted for survey design, standard errors are produced rather than standard deviations.

[c] Coefficients for males and females are significantly different in parallel models at $p<.05$ using the method recommended by Paternoster, Brame, Mazerolle, and Piquero (1998).

[d] The statistical program SUDAAN computes an R^2 for logistic regressions as a generalized coefficient of determination from Cox and Snell (1989).

NOTE: This table includes unstandardized coefficients (standard errors) and Odds Ratios from Logistic Models.

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Table 7

Violence T2 Regressed on Controls, Serious Strain, Negative Emotions, and Deviant Friends

	Model 1		Model 2		Model 3	
	Males	Females	Males	Females	Males	Females
Variables	***b*(SE*b*)**	***b*(SE*b*)**	***b*(SE*b*)**	***b*(SE*b*)**	***b*(SE*b*)**	***b*(SE*b*)**
Intercept	.30(.13)*	.28(.08)**	.27(.14)*	.26(.08)**	1.00(.22)***	.42(.16)** *c*
Violence T1	.33(.02)***	.32(.03)***	.32(.02)***	.30(.03)***	.29(.02)***	.29(.03)***
Age	−.01(.01)	−.02(.01)**	−.01(.01)	−.02(.01)**	−.03(.01)***	−.03(.01)***
Public Assistance	−.01(.05)	.03(.03)	−.02(.05)	.03(.03)	−.02(.05)	.02(.03)
Mother's Education	−.03(.01)*	−.01(.01)	−.03(.01)*	−.00(.01) *c*	−.03(.01)*	−.00(.01) *c*
Single-Parent Family	.04(.04)	.05(.02)*	.03(.04)	.04(.02)	.00(.03)	.03(.02)
Latino/a*a*	.07(.05)	.05(.04)	.07(.05)	.04(.04)	.09(.05)*	.05(.04)
Black*a*	.02(.04)	.01(.03)	.03(.04)	.00(.03)	.06(.04)	.02(.03)
Asian*a*	−.06(.04)	−.07(.04)	−.07(.04)	−.08(.04)*	−.02(.04)	−.06(.04)
Other Race*a*	.15(.08)*	.10(.05)	.14(.07)	.10(.05)	.14(.07)	.10(.05)
Others Present	−.05(.03)	−.00(.02)	−.05(.03)	−.00(.02)	−.05(.03)	−.00(.02)
Friend/Fam. Suicidal	.05(.05)	.04(.02)	.04(.04)	.03(.02)	.01(.04)	.01(.02)
Violent Victimization	.30(.04)***	.18(.03)****c*	.29(.04)***	.17(.03)***	.25(.04)***	.15(.03)*** *c*
Depressive Symptoms			.05(.05)	.09(.03)**	−.03(.06)	.06(.03)
Bad Temper			.08(.03)*	.03(.02)	.05(.04)	.02(.02)
Social Supp.					−.06(.03)*	−.02(.02)
School Att.					−.00(.02)	.01(.01)
GPA					−.03(.02)	−.01(.01)
Deviant Friends					.04(.01)***	.02(.00)*** *c*
R^2	.22	.23	.22	.23	.24	.24

* $p<.05$

** $p<.01$

*** $p<.001$

[a] White is the reference category for all race/ethnic groups.

[b] Because these statistics are weighted and adjusted for survey design, standard errors are produced rather than standard deviations.

[c] Coefficients for males and females are significantly different in parallel models at $p<.05$ using the method recommended by Paternoster, Brame, Mazerolle, and Piquero (1998).

NOTE: This table includes unstandardized coefficients (standard errors) from OLS models.