

The Effect of Family Structure and Family Processes on Young Adult Criminal Behavior

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ABSTRACT

There is much debate in the current literature about the influence of family structure on adolescent's behavioral outcomes. Researchers frequently focus on the difference between two-parent families and single-parent families, primarily single-mother families. Using data from Waves I and III of the National Longitudinal Study of Adolescent Health, I extend prior literature by analyzing the effect of an array of family forms on young adult's criminal behavior, specifically self-reports of theft and violence. The analyses demonstrates that family processes, including closeness to parents, internalized control and parental monitoring, unmask the relationship between family structure and young adult's criminal behavior. Family structure becomes a significant predictor of violent delinquency only when these family processes are taken into account. Adolescents' closeness to parents and parental monitoring decreases the amount of young adult, theft and violence. Internalized control has no effect on violence. Parental supervision is not a significant predictor theft or violence.

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Introduction

The majority of research focusing on the effects of family structure on delinquency has examined two-parent families and single-mother families with little or no mention of single-father families (Wu and Thomson, 2001; Astone and McLanahan, 1991; Wu and Martinson, 1993). According to Murray (2002) a “functional” family is defined as a family containing two married parents. This idea of the “functional” family has stigmatized those families that do not fit the “functional” model. The “functional” model is becoming less of a norm (Teachman, Tedrow and Crowder, 2000), as the number of single-parent families, including single-father families grows. Although a link between family structure and delinquency is well established in the literature, the actual direction of this effect is still in question. Kesner and Mckenry (2001) used a battery of skills tests as well Gresham and Elliot’s (1990) Social Skills System to examine the relationship between family composition and children’s outcomes (Kesner and Mckenry, 2001). The researchers found that the single-parent family structure is not itself a risk factor for delinquency. There was no difference in delinquency rates based on family of origin when controlling for socioeconomic status. Hoffmann and Johnson (1998), on the other hand, find that even when controlling for socioeconomic status, children from single-parent families, particularly single-father families, are more delinquent than their counterparts from two-parent families.

Family Structure and Change

Single-father households are the fastest growing of all family types (Garasky and Meyer, 1996). According to Meyer and Garasky (1998) between 1960 and 1989 the number of single-father families increased from 350,000 to 1.4 million. In 1993 single-father families accounted

for about 15.5% of all single-parent families (U.S. Census Bureau, 1995). This increase in single-father families has prompted a recent flood of research on the effects of single-father families on adolescent well being; however, the literature primarily focuses on the demographic features of single-father families (Eggebeen, Snyder and Manning, 1996; Meyer and Garasky 1993).

Two studies have addressed single-father families in analyses of delinquency (Hoffman and Johnson, 1998; Demuth and Brown, 2004). Hoffman and Johnson (1998), using three years of data from National Household Survey on Drug Abuse (NHSDA), find that adolescents who reside in single-father families are at higher risk of problem drug use than adolescents from any other family form, including single-mother families. This effect remains significant even when controlling for the effects of race, income, sex, age and residential mobility. Demuth and Brown (2004) using the National Longitudinal Survey of Adolescent Health (Addhealth), find that adolescents from single-parent families are significantly more delinquent than their counterparts from married two-parent families. They also find that adolescents from single-father families are significantly more delinquent than their counterparts from single-mother families. However, the effect of family structure becomes non-significant when controlling for family processes, including parental attachment and parental control. Though both the Hoffmann and Johnson (1998) and the Demuth and Brown (2004) studies were conducted using recent nationally representative data sets, both take a cross sectional approach. A longitudinal approach is needed to study the effect of single-father families on adolescent outcomes in order to account for proper casual ordering as well as to make inferences about long term effects.

In addition to the growth of single-father families, the prevalence and composition of step-families has changed. Step-families have been referred to in the literature as incomplete

institutions, in the sense that there are no clear-cut norms regarding the roles of step-parents and step-children (Cherlin, 1978; Fine, 1997). There are mixed results regarding the effect of step-parents on step-children, and there are also mixed methodologies regarding how to define step-families. Some studies combine all families with one biological parent and one non-biological parent together as step-families. Other studies separate them into two groups based on the presence of the biological mother: biological mother and step-father and biological father and step-mother. Hao and Xie (2002) find that when defining step-families as all families which include one biological parent and one step-parent, there is no negative effect of step-families on delinquency. However, once they control for family stability, step-families were as beneficial as intact two-biological parent families. This result differs from Hoffmann and Johnson (1998) who find that when step-families are separated into biological-mother/stepfather and biological-father/stepmother, those adolescent from biological-father/stepmother families have higher risk of drug use than those from biological-mother/stepfather families.

Research on Family Structure and Adolescent Delinquency

Studies on the relationship between family structure and delinquency are plentiful but there is little consistency in the findings. A number of studies suggest that adolescents from single-parent families are at greater risk for delinquent behaviors (Hoffmann and Johnson, 1998; Wallace and Bachman, 1991; Bauman, 1990), while others suggest that family structure itself is not important once controlling for other mediating factors (Williams et al, 1999; Demuth and Brown, 2004; Sokol-Katz and Dunham, 1997).

The results of the studies vary depending on how family structure and delinquency were operationalized, however, based on patterns of single-parenthood and delinquency, it is reasonable to question links between these conditions. According to the 1995 U.S. Census

Bureau 26% of the families with children under the age 18 were single-parent households. This number increased in 1996 to 27% and then to almost 28% in 1997. If single-parent households were the direct cause of juvenile delinquency then this increase in single-parent homes should have been associated with an increase in juvenile crime rates for that time period. However, studies show just the opposite. Juvenile arrest for violent crime declined by 3%, 6% and 4% respectively in 1995, 1996 and 1997(Sickmund, Synder and Poe-Yamagata 1997).

Studies have found substantial delinquency among children from two-parent homes, as well as those from single-parent homes (Scott, 2001). A qualitative study conducted in the middle-upper class white suburb of Cape Coral, Florida, retold accounts of drugs, theft, sex and mayhem that occurred among children ranging in age from 9 to 18 (Scott, 2001). Despite their two-parent families there was an evident lack of parental involvement in these children's lives. Parents reported that the children were allowed immense amounts of freedom. These children are delinquent not because of their family structure, which is the "traditional intact" family structure. However, the study suggests that delinquency is related to a lack of social control despite family structure. Other studies report that the amount of social control in the form of attachment/ involvement and parental monitoring are more important than family structure (Sokol-Katz and Dunham, 1997; Williams et al, 1999).

This research suggests that parenting deficiencies in monitoring and regulation of adolescents may override family structure as a determinant of delinquency. Most research assumes, however, that insufficient parental monitoring is a greater problem for single-parent families than two-parent families. "The physical absence of adults may be described as a structural deficiency in family social capital" (Coleman 1988:111). Thus, the single-parent family structure is often seen as being a risky environment for children's well-being (Achenbach,

Howell, Quay and Connors, 1991). Though two-parent families don't have this "structural deficiency" they may also fail to adequately monitor their children. But little research has moved beyond this debate to examine the diversity of family arrangements children experience today. There may be differences in the effectiveness of parental social control by the gender of the single-parent or in families with stepparents.

There is clearly a need to go beyond the debate regarding two vs. single parent families to examine an extended range of complex family forms. There may be indirect effects of the various family processes on delinquency. I posit that family structure alone will not explain delinquency, but that controlling for the protective social control provided by parents, the net effect of family structure will appear suggesting some vulnerabilities in these families that are compensated by positive family processes.

Parenting Practices and Family Processes

There are several possible explanations for differences in delinquency and family structure. It may be that family processes operate differently across family types. Here I review the theoretical importance of social control and economic well-being in explaining adolescent delinquency.

SOCIAL CONTROL

There may be less difference in family processes and parenting behaviors across family type. Perhaps these features offer protection to adolescents. Social control theory identifies three types of parental control which can act as a barrier to young adult's criminal behavior: internalized, indirect and direct control (Nye, 1958). Internalized control refers to the extent to which the parents have helped the child to develop feelings of moral obligation (i.e. a conscience). Indirect controls refer to the amount of affection and closeness the child feels for

the parent (i.e. attachment bonding and communication). Direct control refers to the more hands on physical supervision (i.e. restriction and monitoring). Research suggests that those adolescents who have a developed sense of moral obligation and effective communication along with a deep attachment to at least one parent were less likely to commit acts of delinquency (Hirschi, 1969; Rankin and Kern, 1994; Clark and Shields, 1997).

The social control perspective is particularly important when discussing single-parent families because they are structurally disadvantaged by having only one adult present to provide all dimensions of effective social control (McLanahan and Sandefur, 1994; McLanahan and Booth, 1989). This suggests that children from single-parent homes exhibit more delinquent behavior than their counterparts who reside in two-parent families because of a lack of social control. Several studies support this hypothesis. Findings indicate that by controlling for various forms of social control the effect of family structure virtually disappears (Demuth and Brown, 2004; Kierkus and Baer, 2002; Sokol-Katz and Dunham, 1997; Barnes and Farrell, 1992). This suggests that the number of parents in the home has an indirect effect on delinquent behavior. Family processes, in particular social controls, are an intervening mechanism between family structure and delinquency. Scott (2001) supports the hypothesis that social control, rather than number of parents is key for delinquency, pointing out that there is a considerable amount of delinquency, all forms, in middle-class, two-parent suburbia.

ECONOMIC DEPRIVATION

Families are also disadvantaged by low economic status and this is highly correlated with family structure. If low economic status is associated with delinquency it may have the opposite effect of parental social control. According to Economic Deprivation Theory there is a negative relationship between family economic resources and children's success. For example, children

whose parents invest time and money in them have lower incidences of delinquent behavior and fare better overall in school (McLanahan, Snadefur and Wojtkiewicz, 1992).

There is a connection between family structure and family social economic status (Duncan and BrooksGunn, 1997). Single-parent households usually have one primary source of income, which is associated with lower family income. About seventy five percent of all single-parent households are one-earner female-headed households (2000 U.S. Census Bureau Table F-7). Single-parent families are more likely to be in poverty than any other family form. For example, only 6.9% of married couples with children under 18 live in poverty while an astonishing 35.1% of single-parent female headed households live in poverty (2000 U.S. Census Bureau, Table 5). In a single-parent household the parent is more likely to work in order to provide for the family, leaving the parent with limited time for parental investment. It is also very unlikely that the parent is able to invest as much money in their children as those with two working adults.

Thus, the single-parent home has a strong chance of low parental investment in children in terms of money and time. As a result, economic deprivation has been used to explain why children from single-parent families are less likely to finish or in some cases to even attend school (Astone and McLanahan, 1991). Many of the problems that the children from single-parent homes face can be linked to economic deprivation (Kenser and McKenry, 2001). Since income and family structure are related, it is possible that children from single-parent households only appear to be more delinquent than children from two-parent homes, as they have less access to attorneys. For example, individuals from higher income brackets may have greater access to attorneys that prevent them from becoming a crime statistic.

Hypotheses

Based on the previous review, I form four hypotheses about the effect of family structure on adolescent delinquency. The hypotheses are designed to explain how family processes and economic status exert opposing forces that account for the reason different studies reach different conclusions regarding the role of family structure on delinquency.

Hypothesis 1: Family structure is associated with both risk and protective factors that are in turn associated with delinquency. Therefore, family structure alone will not be a significant predictor of delinquency.

Hypothesis 2a: Risk factors associated with family structures will predict delinquency. Living in poverty will be associated with increased likelihood of delinquency.

Hypothesis 2b: Protective factors associated with family structures will predict delinquency. High parental social control will be associated with a decreased likelihood of delinquency.

Hypothesis 3: Family structure will emerge as an independent predictor of delinquency only when protective social control and the economic deprivation are controlled.

Data and Methods

DATA DESCRIPTION

The data source for this study comes from the National Longitudinal Survey of Adolescent Health (Addhealth), which was funded by a grant from National Institute of Child Health and Human Development to the Carolina Population Center, University of North Carolina at Chapel Hill. The study consists of a nationally representative sample of adolescents. Respondents were originally interviewed between 1994 and then re-interviewed in both 1996 and 2001. The Wave I sample yields almost 91,000 respondents, Wave II yields almost 15,000 and Wave III yields almost 15,200 respondents. The response rates for Wave I, Wave II and Wave III were 78.9%, 88.2% and 77.4% respectively (Harris *et al*, 2003). I will be using the in home

proportion from Waves I and III for this study. For a detailed description of the data see Harris *et al* (2003).

SAMPLE SELECTION

The sample for the present study consists of data from Wave I and Wave III. My independent and control variables come from the Wave I in-home survey portion, while my dependent variables come from the Wave III in-home survey portion. By taking a longitudinal approach I can be confident that the causality of actions is correctly ordered. Respondents had to meet three criteria to be included in the present study: have completed questionnaires for both Wave I and Wave III, reside in a parent headed household at the time of interview, and have valid data for all variables included in the analysis. Due to the small number of Native Americans (N=115), they are excluded, along with respondents who identified themselves as multiracial but did not report a best race. Addhealth is a complex survey design in that it is a school based sample. In order to account for the clustered survey design I have applied the proper survey weights and design effects, which also resulted in excluding those cases missing on the weight variable. The final analysis has an effective sample size of 10, 087 for the theft delinquency analysis and 10, 059 for the violent delinquency analysis.

DEPENDENT VARIABLES

The dependent variables for this study are theft and violence at Wave III; young adults were asked four questions involving theft within the last 12 months. They were asked if they had stolen something worth more than \$50, something worth less than \$50, if they had gone into a house and/or building with the intention to steal something and if they had within the past 12 months brought, sold or held stolen property. Their responses were coded into 4 categories, with 0 representing 'never', 1 for 'one to two times', 2 for 'three to four times', and 3 for 'five or

more times.’ Using the sum of all 4 theft delinquent acts I have created a theft delinquency scale with an alpha of .714. The scale ranges from 0-12, with 0 being ‘never committed a theft delinquent act in the past 12 months’ and 12 being ‘committed all four theft delinquent acts five or more times in the past 12 months.’

The variable violent delinquency is created in the same manner as theft. Adolescents were asked five questions involving violent acts within the last 12 months. They were asked if they had deliberately damaged property that was not theirs, if they had threatened to use a weapon to get something from someone, if they had taken part in group physical fight, if they had used a weapon in a fight and if they had in the past 12 months carried a handgun to school or work that was not used for work purposes. Their responses were coded into 4 categories, with 0 representing ‘never’, 1 for ‘one to two times’, 2 for ‘three to four times’, and 3 for ‘five or more times.’ Using the sum of all 5 violent delinquent acts I have created a violent delinquency scale with an alpha of .541. This is a very low alpha value; however, no alternative combination yielded a higher alpha value. The scale ranges from 0-14, with 0 being ‘never committed a violent delinquent act in the past 12 months’ and 14 being ‘committed all five violent delinquent acts five or more times in the last 12 months.’

INDEPENDENT VARIABLES

There are two focal independent variables for this analysis; parental control and socioeconomic status. There are three types of **parental control: internalized, direct and indirect social control**, each will be measured separately. Adolescents were asked a number of questions about their decision-making process. I am particularly interested in three items which tap into the level of internalized parental control. The responses for all three questions range from strongly agree to strongly disagree. The first question asks the adolescents “when you have

a problem to solve, one of the first things you do is get as many facts about the problem as possible.” The second question asks adolescents “when you are attempting to find a solution to a problem, you usually try to think of as many different ways to approach the problem as possible.” The third question asks adolescents “when making decisions, you generally use a systematic method for judging and comparing alternatives.” The three questions are combined to make a scale so that the higher on the scale an adolescent falls the more internalized parental control they experience. The scale ranges from 3-15 with an alpha of .71.

There are two measure of direct parental control; one is a reflection of monitoring by way of decision making, while the other is physical supervision by way of being in the physical presence of one’s child. Adolescents were asked how often their resident parent(s) was home when they left for school; how often their resident parent(s) was home when they returned home from school and how often their resident parent(s) was home when they went to bed. The items were combined in a scale and recoded so that the higher on the scale the more parental supervision the adolescent received. For those adolescents from single-parent families I will use the reports for that parent, for those adolescents from two-parent families I will take the average reports for both parents. The range of the scale is ‘0’ never to ‘14’ always with an alpha of .23. This is a very low alpha; however, the exact scale from these data was used in a previously published article (Demuth and Brown, 2004). I will use the same scale for comparability purposes.

Adolescents were asked if their parents let them make their own decisions about who they hang out with, the clothing they wear, the amount of television they watch, which television programs they watch, week-night bed time and what foods they eat. These items are combined into a scale with an alpha of .63 and make up the monitoring of decisions scale.

Adolescents were asked how close they feel to their resident parent(s); this questions will be used to tap into parental closeness, which is an indicator of indirect control. Some adolescents will only have one resident parent while others will have two; therefore, for those adolescents in two-parent families parental closeness will be an average of closeness to both parents, while for those adolescents with only one parent I will use the reported closeness for that parent.

Socioeconomic status is measured through parental education and family income. Parental education is a categorical variable that ranges from 1-5 ; 1 'less than high school'; 2 'high school graduate'; 3 'some college'; 4 'college graduate'; and 5 'more than college'. For those adolescents from single-parent families I will use that parent's education, for those adolescents from two-parent families I will take the average of both parent's education. Family income is measured in quartiles with the fourth as the reference group.

CONTROL VARIABLES

There are a number of demographic characteristics which are controlled in almost any analysis of delinquency including biological sex, age and race/ethnicity. Age has been found to be a significant predictor of delinquent behavior in that younger individuals are disproportionately involved in criminal behavior (South and Messner, 2000). Age is continuous. Though the effect of age is not a main focus in this work it will be controlled. Biological sex will also be controlled. It has been established in the literature that there is a link between biological sex and delinquent behavior, with boys being more delinquent than girls (Steffensmeier and Allen, 1996). Sex is dummy coded, males are the reference group. The last control variable is race/ethnicity, with four categories: whites, Blacks, Hispanics and Asians; whites are the reference group. Although race has been found to be correlated with delinquency (Williams et al

1999; Thomas et al 1996), tests demonstrate no significant interactions with the focal variables of interest here (analysis not shown). Therefore, I treat it as a simple control measure.

Statistical Methods

The data was analyzed using the survey estimation procedures found in STATA. The survey estimation procedures are used to correct the stratified clustered survey design. The data has also been weighted using the appropriate Wave III weights as described by Chantala (2001).

The data for the dependent variables are highly clustered on zero which violates the normality assumptions for ordinary-least-squares regression. After reviewing a number of previous articles there are two options: a Poisson regression model or a negative binomial model. Both methods are ideal for count data, however negative binomial regression is better than Poisson regression when the standard deviation is greater than the mean or simply put when there is overdispersion (Gardner, Mulvey, and Shaw 1995). Analysis indicate (analysis not shown) that the data, are overdispersed, indicating that the binomial regression is appropriate to model the effect of family structure and processes on delinquency/criminal behavior.

Negative binominal regression coefficients are interpreted in the same manner as logistic regression (Osgood, 2000; Liao1994). For example in Table 2 respondents sex is a significant predictor of theft delinquency with a coefficient of -1.081. Since this is a dummy variable, I am modeling the odds of male versus female in regards to theft delinquency. The $\exp(-1.081)$ would give a value of .3393. This suggests that girls are 66% ($1-.3393$) less likely than boys to commit theft delinquencies.

Results

Table 1 provides the respondent's characteristics by family structure for the entire sample. About sixty two percent of the adolescents are from two-biological parent families,

24.81% are from single-mother families, 3.29% are from single-father families, 1.91% are from father-stepmother families and 8.21% are from mother-stepfather families. Respondents from single-father families have the highest incidence of theft delinquency at Wave III followed by two-biological parent families, then single-mother, father-stepmother and mother-step father families. Respondents from single-father families have the highest incidence of violence delinquency at Wave III followed by two- biological parent families, then single-mother, mother-stepfather and father-stepmother families. Overall, young adults from single-father families report more delinquency than those from all other family types. While young adults from single-mother families seem to fare much better than those from single-father families.

The sample overall is evenly distributed in regards to adolescent's sex. When examined by family structure this pattern persists except for single-father and father-stepmother families which are composed of approximately 60% female adolescents. This is an interesting finding because most studies find that boys are more likely than girls to be from single-father families. The average age of respondents in the sample is 21.68 at Wave III, which is consistent across family structure. Over 70% of the complete sample is non-Hispanic white, but Blacks make up a large percentage of single-mother families (28%). Non-Hispanic whites, make up 81% of father-stepmother families but only 59% of single-mother families.

[Table 1 about here]

The amount of parental control differs by family type across all five family structures. Figure 1 shows that single-mother families overall have higher amount of parental control. In Panel A of Figure 1 single-mother families have significantly higher amounts of parental closeness than two-biological parent families. The same is true in Panel B and Panel C, single-mother families have higher amounts of supervision and internalized control than two-biological

parent families. Consistent with prior studies Panel D shows that single-parent families are significantly lower than all two-parent families on parental monitoring. But, the overall pattern suggests family processes in single-mother families are protective.

In Panel E of Figure 1 it is clear that young adults from single-mother and biological mother stepfather families have parents with significantly lower amounts of education, than those parents of two-biological parent families. This suggests that adolescents from single-mother and stepfather families experience higher amounts of economic deprivation.

[Figure 1 about here]

NEGATIVE BINOMINAL RESULTS

Table 2 shows the regression coefficients for all the variables regressed on theft delinquency. Family structure alone is not a significant predictor of theft delinquency. This is also the case once we account for parental control and socioeconomic status. The coefficients do decrease substantially from Model 1 to Model 3, suggesting that the addition of predictors measuring parental control and SES reduce the effect of family structure.

[Table 2 about here]

Sex is a significant predictor of theft in that girls are less likely than boys to commit acts of theft. Younger adults are more likely to commit acts of theft than older adults. Race is a significant predictor of theft in that Blacks and Hispanics are more likely than their white counterparts to commit acts of theft, this effect is net of controls for family structure SES and various control.

[Table 3 about here]

In Table 3 family structure, parental control, SES and various control variables are regressed on violent delinquency. These results coincide with the theft results in that family

structure alone is not a significant predictor of violent delinquency. The coefficient for family structure from Model 1 to Model 3 becomes significant. All three of the five family structure coefficients experience a decrease however only single-mother and father-stepmother families are significant; these coefficients experience a slight increase. This suggests that parental control and SES are acting as indirect effects through family structure on violent delinquency, in opposite direction accounting for the lack of significance in the baseline model.

Discussion

This study uses longitudinal data to examine the effect of family structure and parental control on young adult's delinquent behavior. Previous research in this area has looked at the effects of family structure using more broad categories of family structure; for example, investigating single-mother families and single-father families as one combined group, single-parent families. This paper extends previous research by analyzing more complex family forms. For example, five family types were examined here single-mother, single-father, biological mother-stepfather, biological father-stepmother and two-biological parent families.

The regression analysis reveals marginal support for hypothesis 1. Family structure indeed was not alone a significant predictor of either theft or violence. However, as we can see from Table 2 once family processes were added family structure remained insignificant. In the case of violent delinquency after adding in the family process variables, family structure is a significant predictor, supporting hypothesis 1.

I hypothesized that young adults who lived in poverty as adolescents are more likely to commit acts of delinquency; but the regression coefficient for parental education was a significant positive predictor for theft, implying that as parental education increase so does the likelihood of committing theft delinquency. The third quartile of income is a significant negative

predictor of both theft and violence. This indicates that young adults who were in the 75th percentile of income as adolescent are less likely than their counterparts in the highest income category to commit acts of theft and violence. A possible explanation for this finding is that respondents from lower SES families may be expected to contribute to their families be it financially or by focusing on their studies, while respondents from higher SES families may have the luxury of time and ample opportunity to commit such acts. This would be consistent with Scott's (2001) study, in which the upper middle class affluent adolescents were participating in delinquency.

Supporting hypothesis 2b, however, social control is a significant predictor of both theft and violence. Parental closeness was shown to be a significant negative predictor of both theft and violent delinquency. This is consistent with current literature; adolescent/ young adults who feel closer to their parents are less likely to steal or be criminally violent (Clark and Shields, 1997). Internalized control is a significant predictor only for theft delinquency. This finding is not surprising, both closeness and internalized control operate in the same manner. Adolescents who have developed a trusting positive relationship with their parent(s) are likely to make better decisions (i.e. not steal or be violent). We are currently being bombarded in the media with commercials that coincide with this finding, for example the "parents are the anti-drug" and it may be that these parents are just that. These commercials were created to prompt parents to talk with their children about drugs, sex and violence so that parents may act as a barrier to these detrimental behaviors (Office of National Drug Control Policy, 1998). My finding suggests that parent/child closeness may in fact be achieving such a goal.

Monitoring was found to be a significant negative predictor of theft and violence. This finding implies that the effect of having high parental monitoring as an adolescent has lingering

effects in young adulthood. Parents monitor your children. Contrary to previous literature parental supervision is not a significant predictor of any of the three delinquencies. There are two possible explanations for the non-significance of parental supervision. The first is that the measure used; the scale had an alpha of .23 which is very low. Using better measure may have yielded significant results. Though using this measure Demuth and Brown (2004) found significance to predict adolescent delinquency, their results do not carry over, in that the measure was not a significant predictor of young adulthood delinquency. The second explanation is the idea that parental supervision in adolescents is important however; in young adulthood there is no significant effect for past parental supervision.

Consistent with hypothesis 3 family structure emerges as a significant predictor of violent delinquency with the addition of family processes. Family structure does not become significant in the case of theft delinquency, however the coefficients show a trend in line with hypothesis 3.

The results show that, overall, family structure in adolescence is not a significant predictor of young adult theft or violent criminal behavior by itself. The risks associated with family structure however do have significant effects on violence, because poverty in adolescences is a significant predictor of violence. Though the theft findings in regards to family structure are not significant the patterns of the coefficients model those of the violence coefficients. When examining the effects of family structure on outcomes in later life we must take into account both the risk and protective factors associated with family structure. Single-mother families are more likely to be in poverty; however they are also more likely to have close relationship with their children. The closeness in these relationships is vital as they may help to reduce the likelihood of deviant behaviors. The impact of parental control and economic deprivation in a sense unmask the effect of family structure on delinquency.

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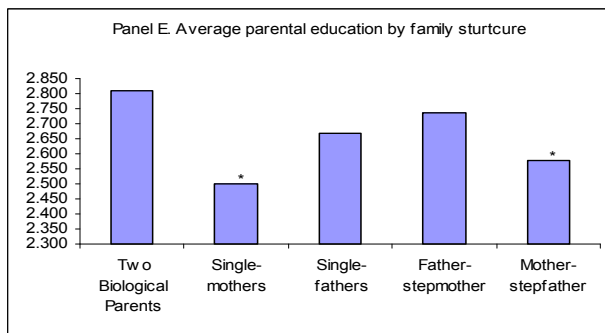
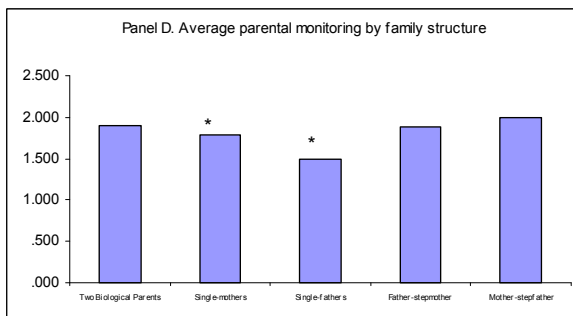
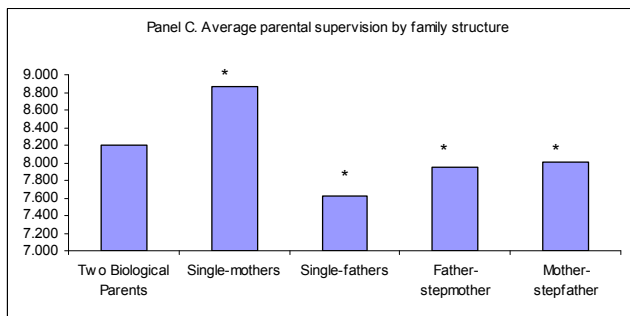
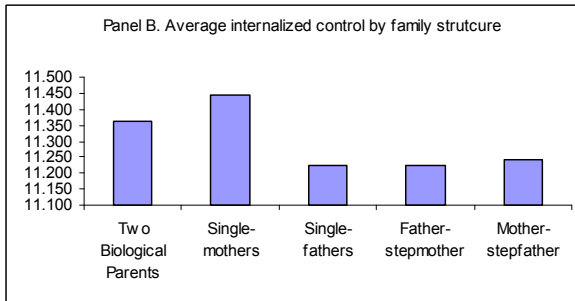
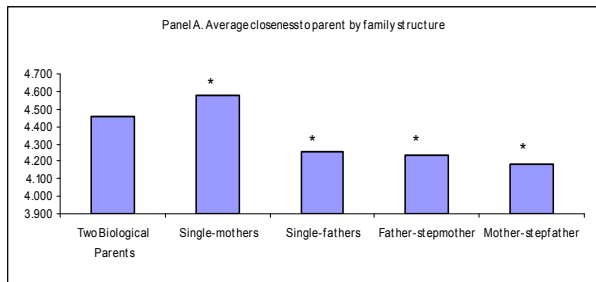
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Table 2: Means/Percentages for Variables used in the Analysis by Family Structure

	Total Sample	Two Biological Parents		Single-mothers	Single-fathers	Father-stepmother	Mother-stepfather
		Parents	Parents				
Dependent Variables							
Theft Delinquency	.251	.268	.218	.327	.163	.201	
Violent Delinquency	.305	.294	.327	.416	.222	.307	
Child's Characteristics							
Female(%)	49.97	49.27	46.37	59.18	60.34	49.43	
Male(%)	50.03	50.73	53.63	40.82	39.66	50.57	
Age	21.68	21.66	21.69	21.98	21.93	21.67	
Black (%)	12.83	7.65	27.73	10.56	5.65	11.37	
Hispanic(%)	11.62	11.60	12.09	10.12	8.94	11.58	
Asian(%)	2.80	3.47	1.24	3.19	4.01	1.82	
White(%)	72.76	77.29	58.93	76.13	81.40	75.23	
Parental Characteristics							
Parental education	2.710	2.809	2.501	2.666	2.735	2.575	
Missing family income(%)	10.58	11.32	9.09	12.51	10.28	8.64	
Family income in the 25th percentile(%)	20.53	11.53	45.76	18.48	18.94	16.63	
Family income in the 50th percentile(%)	21.38	19.36	24.90	30.12	15.09	24.54	
Family income in the 75th percentile(%)	27.05	31.69	14.11	26.29	27.79	29.55	
Family income in the 100th percentile(%)	20.46	26.09	6.14	12.61	27.91	20.64	
Family Processes							
Parent closeness	4.454	4.460	4.576	4.254	4.236	4.187	
Internalized control	11.365	11.363	11.444	11.223	11.224	11.241	
Parent supervision	8.325	8.206	8.867	7.625	7.945	8.013	
Parent monitoring	1.866	1.896	1.793	1.489	1.889	1.990	
	N	6,229	2,503	334	192	829	

Figure 1: Parental Control Variables by Family Structure



* Denotes statistical significant from two-biological parent family $p \leq .001$.

Table 2: Unstandardized Negative Binomial Regression Coefficients from the Multiple Regression of Theft Delinquency on Family Structure, Family Processes, and Control Variables

	Model 1	Model 2	Model 3
Family Structure			
Single-mother	-.211	-.057	-.009
Single-father	.180	.104	.059
Father-stepmother	-.508	-.496	-.559
Mother-stepfather	-.178	-.092	-.159
Two biological parents	(Ref)	(Ref)	(Ref)
Child's Characteristics			
Female		-1.081 ***	-1.189 ***
Male		(Ref)	(Ref)
Age		-.200 ***	-.246 ***
Black		.318	.431 **
Hispanic		.315	.392 *
Asian		.182	.237
White		(Ref)	(Ref)
Parent's Characteristics			
Parental education		.154 **	.123 *
Missing family income		-.493	-.521
Family income in the 25 th percentile		-.358	-.428
Family income in the 50 th percentile		-.165	-.233
Family income in the 75 th percentile		-.303 *	-.377 **
Family income in the 100 th percentile		(Ref)	(Ref)
Family Processes			
Parent closeness			-.322 ***
Internalized control			-.052 *
Parent supervision			.000
Parent monitoring			-.076 *
Intercept	-1.30964 ***	3.304 ***	6.320 ***
	Pseudo R ²	.001	.032
	N=	10,087	

*p<.05. **p<.01. ***p<.001

Table 3: Unstandardized Negative Binomial Regression Coefficients from the Multiple Regression of Violent Delinquency on Family Structure, Family Processes, and Control Variables

	Model 1	Model 2	Model 3
Family Structure			
Single-mother	.098	.205	.221 *
Single-father	.384	.275	.232
Father-stepmother	-.288	-.471	-.496 *
Mother-stepfather	.037	.133	.105
Two biological parents	(Ref)	(Ref)	(Ref)
Child's Characteristics			
Female		-1.699 ***	-1.760 ***
Male		(Ref)	(Ref)
Age		-.155 ***	-.181 ***
Black		.272 *	.320 **
Hispanic		.157	.184
Asian		-.262	-.236
White		(Ref)	(Ref)
Parent's Characteristics			
Parental education		.016	.011
Missing family income		-.192	-.234
Family income in the 25 th percentile		-.199	-.235
Family income in the 50 th percentile		-.201	-.222
Family income in the 75 th percentile		-.307 **	-.335 **
Family income in the 100 th percentile		(Ref)	(Ref)
Family Processes			
Parent closeness			-.175 **
Internalized control			-.026
Parent supervision			.016
Parent monitoring			-.056 *
Intercept	-1.21546 ***	2.697 ***	4.352 ***
	Pseudo R ²	.001	.065
		.065	.068
N= 10,059			

*p<.05. **p<.01. ***p<.001