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Parent-Child Relations and Offending During Young Adulthood

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Abstract

There is a long tradition of studying parent-child relationships and adolescent delinquency. However, the association between parent-child relationships and criminal offending during young adulthood is less well understood. Although the developmental tasks of young adulthood tend to focus on intimate relationships, employment, and family formation, the parent-child bond persists over the life course and likely continues to inform and shape behavior beyond adolescence. Using data from the Toledo Adolescent Relationships Study (TARS), the influence of parental involvement on patterns of offending among respondents interviewed first as adolescents and later as young adults is examined. The TARS sample used for our study (N=1,007) is demographically diverse (49.5% female; 25.3% Black; 7.2% Hispanic) and includes youth beyond those enrolled in college. The influences of both early and later parenting factors such as support, monitoring and conflict on young adults' criminal behavior are examined. Results show that early monitoring and ongoing parental support are associated with lower offending in young adulthood. These effects persist net of peer influence and adolescent delinquency. This suggests the importance of examining multiple ways in which parental resources and support influence early adult behavior and well-being.

Criminologists interested in adolescent delinquency (e.g., Moffitt, 1993; Warr, 2007), and adult criminality (e.g., Laub and Sampson, 2003) have frequently examined the importance of family relationships. Research on delinquency has assessed the role of parental support during early childhood and parental monitoring during the more turbulent adolescent years. Prior work on offending during adulthood has typically focused on ways in which marriage influences criminal desistance. These emphases assume that as the individual transitions to adulthood, the adult marriage bond is primary and the family of origin no longer plays a large role. As Schroeder, Giordano and Cernkovich (2010) noted recently, criminology has in large part either ignored or openly dismissed parents as an influential factor in the lives of adults.

The current study uses longitudinal data to evaluate in what ways parents might 'matter' beyond adolescence with regard to criminal offending, as young people transition into adulthood. We draw on recent theoretical work on emerging adulthood (e.g., Arnett, 2000; Shanahan, 2000; Aquilino & Supple, 2001; Galambos, Turner, & Tilton-Weaver, 2005), using a contemporary sample of young adults. We explore the role of adolescent parenting but also on-going relationships between parents and their adult children as factors associated with life course patterns of criminal continuity and change.

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PARENTS AND OFFENDING ACROSS THE LIFE COURSE

Parenting in Adolescence and Delinquency

Most scholars who have focused on the origins of delinquency include attention to parenting practices and family relationships, but Hirschi (1969) placed the parent-child bond at the center of his influential control theory. Hirschi argued that strong feelings of attachment to parents creates a meaningful bond that the child would not wish to jeopardize by engaging in delinquent or other problem behaviors. Gottfredson and Hirschi (1990) continued to highlight that parents have a key role in effectively monitoring the child's behavior, noting that if they do not provide adequate supervision and the necessary corrective discipline, the child will develop poor impulse control. These theories and their counterparts within psychological treatments of positive youth development (Collins, 1996) give primacy to the formative years, suggesting that the effects of parental practices are observed relatively early, as influences on the child's delinquent tendencies, which are theorized as becoming relatively stable individual traits or tendencies.

Subsequent research on parenting and delinquency has focused on an array of specific dimensions or processes, but findings generally support Hirschi's notion that strong bonds of attachment or caring are associated with lower odds of delinquency, while monitoring and supervision have emerged as reliable protective factors (Jang, 1999; Demuth & Brown, 2004; Anderson & Hughes, 2009). Assessments of the combined influence of parental attachment and control on delinquency indicate that authoritative parenting (high in support and high in monitoring), produces better adolescent outcomes in terms of safeguarding against not only delinquency but other outcomes such as depression and poor academic achievement (Lamborn, Mounts, Steinberg and Dornbusch, 1991; Simons and Conger, 2007; McKinney and Renk, 2008). Additionally, high levels of conflict and/or coercive parenting are associated with elevated risk for antisocial conduct (Patterson, 1986; Heimer & DeCoster, 1999). Although these findings support a strong role for early family factors in the etiology of problem behaviors, some researchers have nevertheless suggested that a life course approach to family dynamics is warranted. For example, research relying on longitudinal data sets that include multiple assessments of parenting and delinquency involvement has shown that even controlling for a child's early delinquency involvement (the stable trait notion), parenting during the adolescent period explained additional variation in levels of adolescent delinquency involvement (Wright, Caspi, Moffitt & Silva, 1999; Burt, Simons & Simons, 2006; Hay & Forrest, 2006).

While these findings support the idea that parental relationships continue to be important during the adolescent period, there is little work that considers either : 1) the longer term impact of adolescent parenting practices on young adults' criminal involvement, or 2) the degree to which current relationships with parents may also be a factor associated with variations in young adult problem behaviors.

Informal Social Controls and Crime in Adulthood

Research on variations in adult criminality has focused almost exclusively on social institutions such as marriage and employment. Laub and Sampson (1993, 2003) argue that these institutions provide informal social controls that promote pro-social behaviors and work against continued adult criminality. Specifically, they suggest that these informal controls act as turning points and work in concert with social capital to explain changes in criminality that occur within the adult life course. Laub and Sampson find that as social capital accrues through investment in prosocial activities and relationships such as work and marriage, the more individuals have to lose by engaging in behaviors deemed as inappropriate. Thus, the theoretical emphasis is similar to Hirschi's early depiction of the

role of informal social control, but the referent shifts away from early familial dynamics to the more adult concerns of marriage and ties to the economic system. Social institutions also serve to introduce and structure routine activities, thereby reducing opportunities for engaging in deviant behavior (Laub and Sampson, 1993, 2003). Other researchers have emphasized somewhat different mechanisms (e.g., Warr's (1998) focus on the spouse's role in discouraging association with deviant peers, thereby reducing criminal opportunities), but continue to focus primarily on marriage effects. While identifying important mechanisms associated with adult declines in criminal involvement, these studies have largely ignored parental influence on early adulthood criminal offending and/or desistance from offending.

Parenting in Young Adulthood and Offending

Although criminological research has centered on marriage and its influence on reducing crime, demographers note that the median age of first marriage has continued to rise over the last decade and is 25.6 and 27.4 for women and men, respectively (U.S. Census Bureau, 2009). Given this trend in postponing marriage and a greater average length of time in school, researchers have highlighted that young people take longer to accomplish the transition to adulthood compared to previous decades (Fussell & Furstenberg, 2005). Arnett (2000) argues that ages 18 to 25 represents an in-between period that is neither adolescence nor adulthood. Rather, this phase which he refers to as "emerging adulthood" constitutes a distinct stage of the life course. This transition period from adolescence to adulthood is characterized by intense self-focus, instability in residence, work, school and romantic relationships, and is influenced by cultural contexts (Arnett, 2004). As argued by Shanahan (2000), today's Western societies demonstrate increasing variability in opportunities, access and desire to embrace traditional adult roles, thus allowing individuals to "exercise more agency in the construction of their biographies" (2000:670). Consequently, today's young adults may eschew quickly pursuing traditional adult roles in favor of identity and relationship exploration (Galambos, Turner & Tilton-Weaver, 2005).

These demographic and cultural shifts provide a general backdrop for considering factors other than marriage as influences on variations in young adult behavior. Nevertheless, our hypothesis that parent-child relationships continue to be important during the young adult period encompasses several underlying considerations and potential mechanisms. Most young adults do anticipate leaving home between the ages of 18 and 25 (Settersten, 1998), either to attend college or to live on their own while working. Consequently, parents arguably have considerably less direct control over the activities of their offspring than during adolescence, and more importantly, less knowledge of their activities. Even absent the move into marriage, then, this could be associated with a waning of parental influence. However, particularly in light of the instability and change represented by the emerging adult period, parental bonds represent a kind of permanency not present in social bonds with non-related others such as peers, intimate partners, teachers and employers (Grusec & Davidov, 2007). Although not specifically considering criminal behavior, Arnett (2007) argues that parents stand apart in the on-going socializing of adult children in ways that potentially affect their self-regulation, the acquisition of cultural standards for behavior and the development of role-taking skills. While much literature has focused on parents as agents of socialization during childhood and adolescence, there is an emerging body of research examining the continual influence of parents on the lives of their adult children (Aquilino, 1997; Schulenberg & Zarrett, 2006; Renk et al., 2006).

There are several mechanisms through which young adults' relationships with parents may influence not only well-being more generally, but patterns of offending specifically. In a qualitative study of continuity and change in offending over the life course, Giordano, Schroeder and Cernkovich (2007) found that former delinquents sometimes focused on improved relationships with parents as part of an *emotional mellowing process* they

associated with the transition to adulthood—and which they connected specifically to a reduced tendency to rebel/act out in antisocial ways. During adolescence the child remains fundamentally dependent, and if they rebel against a stepparent or the parent's tendency to intrude in their lives, they have very few 'degrees of freedom' to alter their basic living circumstances. Thus, the additional freedoms associated with young adulthood, and often with establishing a separate residence, may serve to remove individuals from the "noxious stimuli" that proved a source of strain during their teen years (Agnew 1992; Giordano et al 2007). Arnett (2004) also noted that parents themselves may see the child's emancipation as a positive development, and find that less knowledge of the specifics of their children's social lives may result in fewer contentious issues that formerly produced disagreement and conflict.

Another set of dynamic processes involves *cognitive shifts*, as the young adult may begin to reframe or reinterpret some of the parents' behavior that during adolescence was viewed in a negative light ("I know she was doing the best she could with what she had" (Giordano, Schroeder and Cernkovich 2007, p 1623)). Youniss and Smollar have also noted that the rigid parent/child hierarchy that occurs in childhood and early adolescence begins to fade away, promoting a relationship that is based more on mutual respect, attachment and support (see also Youniss & Smoller, 1985). Consistent with this, prior research has found that relationships between parents and their offspring tend to improve over time (Aquilino, 1997).

The above cognitive and emotional processes may be associated with improved relationships with parents, and in turn with reduced antisocial behavior during young adulthood. However, this discussion of mechanisms focuses on reductions in behaviors that often originated during the typically more turbulent teen years. Yet also associated with increased freedoms and greater opportunities of the young adult period, increased risks also present themselves such as heavy drinking and other substance use that may be related to other forms of criminal involvement (Arnett, 2005; Chassin, Pitts & Prost, 2002). Work conducted by Padilla-Walker and her colleagues demonstrated that parental monitoring was associated with lower drug and alcohol use among young adult children (Padilla-Walker, Nelson, Madsen & Barry, 2008). This suggests that even though monitoring and supervision may occur at a lower level during this phase of the life course, such efforts by parents may be needed as young adults continue the psychosocial maturational process and face potential opportunities for future problem behaviors.

In light of the reduced opportunities for parents to actively control their child's behavior during young adulthood, basic feelings of *support* may be even more salient, and thus are likely to be associated with lower levels of involvement in antisocial behavior during this time. This is consistent with Hirschi's original emphasis (wherein the child refrains from involvement in delinquency so as not to jeopardize this valued relationship as much or more than due to parental control efforts). The distinction here is that in contrast to Hirschi's (and Gottfredson and Hirschi's) emphasis on the early childhood period, we argue that both the parent-child bond itself and involvement in delinquency are subject to considerable change as well as continuity over the life course. Thus, although Padilla et al. (2008) found that in general these adult-child relationships improved over time, change and variability is also evident within a given sample of young adults. Some young people with a troubled family background during adolescence may continue to experience frequent conflict with their parents as adults, or relationships could deteriorate from an earlier more positive phase. Our purpose in the current investigation is to determine whether these ongoing relationships with parents 'make a difference' for understanding variations in young adults' reports of criminal involvement.

CURRENT INVESTIGATION

The above review suggests some pathways or mechanisms that may be associated with an effect of adult parenting, even after considering the child's earlier relationship with parents and earlier level of delinquency involvement. We explore whether three basic parenting processes (support, monitoring, and conflict) influence young adult delinquent behavior, extending studies that have examined the influence of these processes during the adolescent period (Hirschi, 1969; Cernkovich & Giordano, 1987; Hay, 2003). While our primary concern is the influence of the current parent-adult child relationship on offending, we also consider the longer term consequences of earlier adolescent parenting behaviors. Further, examining parenting in the contexts of adolescence and young adulthood concurrently we assess whether parent-child relationships influence offending during adulthood net of the earlier parenting background. Such an examination is consistent with a life course perspective, which acknowledges the dynamic nature of human lives and their links to significant others. Our hypotheses are straightforward: positive relationships with parents during adulthood will be associated with lower levels of criminal involvement in young adulthood, net of adolescent delinquency and earlier parenting quality, while conflict will be associated with higher levels of criminal offending in early adulthood. Given that in general the young adult period is often not conducive to intense parental monitoring, we hypothesize that parental support may be more salient than parental monitoring as a predictor of variations in criminal offending.

METHODS

Data

We draw on waves 1, 3 and 4 from the Toledo Adolescent Relationships Study (TARS). The data are well suited for these analyses because they are longitudinal and consist of rich questions on parenting and deviant behavior. Other datasets such as the National Longitudinal Study of Adolescent Health (Add Health) include some questions in earlier waves regarding parental relationships; however, these questions in young adulthood have been reduced to include only items regarding closeness and monetary support and do not include monitoring, identity support and conflict.

The TARS data set is a stratified, random sample of 7th, 9th and 11th grade students drawn from 2000 enrollment records from Lucas County, Ohio (N=1316), and includes oversamples of African American and Hispanic adolescents. TARS used enrollment records from Lucas county as its sampling frame, but school attendance was not a requirement for inclusion in the sample, reducing noncoverage error. The sampling frame for TARS consisted of 15,188 eligible students. The final sample totaled 1,316 at wave 1. Wave 4 respondents were recruited from all respondents completing Wave 1, (N = 1088) with a retention rate of 82.8% from Wave 1. For the majority of respondents at each wave, the survey was administered with the aid of a laptop computer, allowing respondents to enter information privately for more sensitive questions, while those of a more general nature were asked and entered into the laptop by the interviewer. Data for additional respondents were collected via telephone and mail-in surveys. The analytical sample is limited to those individuals who participated in all three waves, and reported their racial status as white, black or Hispanic constituting a final sample size of 1007. Comparisons were made for those included in the study and those lost due to attrition. These t-tests revealed no significant differences in scores of delinquency at wave 4 and each of the parenting variables.

Measures

Respondent offending—The dependent variable for the analysis is respondent offending at wave 4. This scale, an adapted version of the 26-item inventory by Elliot and Ageton (1980), is constructed from how frequently the respondents engaged in various deviant behaviors over the previous 24 months including drug use, theft (minor and major), breaking and entering, assault and battery, property damage, selling drugs, public drunkenness, and carrying a hidden weapon. The responses for each item are coded 1 for never, 2 for once or twice a year, 3 for once every 2 to 3 months, 4 for once a month, 5 for once every 2 to 3 weeks, 6 for once a week, 7 for 2 to 3 times a week, 8 for once a day, and 9 for more than once a day. The Cronbach's alpha for the wave 4 delinquency scales is 0.74.

The primary independent variables are comprised of several scales that tap the quality of the parent/child relationship and are drawn from wave 1 (parenting in adolescence) and wave 3 (parenting in young adulthood) to permit analysis of processes measured prior to offending at wave 4. The mean age of respondents at waves 1 and 3 are 15 and 18 years of age, respectively. *Parental support*

Parental support at both waves is constructed from six items asking respondents how much they agreed with the following statements: 1) my parents trust me, 2) my parents give me the right amount of affection, 3) I feel close to my parents, 4) I am closer to my parents than most kids my age, 5) my parents sometimes put me down in front of other people and 6) my parents seem to wish I were a different type of person." Items 6 and 7 were reverse coded so that high scores reflect a higher degree of support. Responses are measured using a five-point likert scale with 1 for strongly disagree to 5 for strongly agree. The Cronbach's alpha score for each wave are 0.78 and 0.80.

Parental monitoring—Parental monitoring consists of seven items that are reverse coded such that higher scores reflect higher degrees of monitoring. Respondents are asked how often their parents let them make their own decisions about: 1) the time you must be home on weekend nights, 2) the people you hang around with, 3) what you wear, 4) your social life, 5) who you can date, and 6) how often you can date. Responses are measured as 1 for never, 2 hardly ever, 3 sometimes, 4 often, and 5 very often. The last item asks respondents how much they agree with the statement: 7) my parents are clueless about a lot of things I do. Responses are measured using a five-point likert scale with 1 for strongly disagree to 5 for strongly agree. The Cronbach's alpha for each wave are 0.76 and 0.84.

Overt conflict by parent—Overt conflict by parent is constructed from three items which asks the respondent when they have disagreements with their parents how often does their parent: 1) call you names or insult you, 2) push, slap or hit you, and 3) yell at you? Responses range from 1 for never, 2 hardly ever, 3 several times a year, 4 twice a month, 5 once a week and 6 two or more times a week. This scale is used across both waves with Cronbach's alpha scores of 0.72 and 0.65.

Control Variables—In addition to the variables described above, several control variables are included in the multivariate analyses. *Age* is a continuous variable, providing the age of respondent at the time of the wave 4 interview. *Gender* is a dummy-coded variable with males as the contrast category. *Race and ethnicity* is composed of White non-Hispanic, Black non-Hispanic, and Hispanic. Dummy variables are created for each race/ethnic category, with White as the reference category.

Employment status is composed of three dummy variables assessing whether the respondent is unemployed, employed part-time or employed full-time at wave 4. Unemployed serves as the reference category. *Educational attainment* measures the highest level of schooling

achieved as of wave 4. Respondents who have dropped out of high school are coded as “less than 12 years;” those who have graduated high school, attained their GED or are currently enrolled in high school are coded as “high school student or graduate;” and those who are currently enrolled in college, have completed some college or graduated with a college degree are coded as “more than 12 years.” “High school student or graduate” is used as the reference category in the models.

Current living arrangement is a dummy-coded variable with those living alone or with friends coded as 1 and those living with parents, spouse or partner as the reference category.

Mother’s education is used as a proxy for socioeconomic status. Using the parent questionnaire, if the adolescent’s mother was the parent filling out the questionnaire, the response to the question, “how far did you go in school?” was used. If the responding parent was male, he was asked, “how far did your spouse or partner go in school?” Responses indicating the highest level of mother’s education are recoded into categories representing “less than 12 years,” “high school graduate,” and “more than 12 years.” Dummy variables are constructed for each response with “high school graduate” as the reference category in the models.

Family structure is composed of four dummy variables indicating the household type in which the adolescent reported living during their adolescence at wave 1. The classifications are “two-biological-parent,” “single parent,” “step-parent,” and “other living arrangement.” Dummy variables are created with “two biological-parent” households as the contrast category.

Peer delinquency is based on a series of questions asked of the respondents about their friends’ involvement in the same delinquent behaviors as measured in the respondent delinquency question. This is measured at wave 3 and has a Cronbach’s alpha of 0.86. Finally, we include a measure of prior delinquent behavior assessed at wave 1. *Adolescent delinquency* employs the same scale as the one used for respondent offending at wave 4, except that it also includes a question regarding the consumption of alcohol. Cronbach’s alpha for this scale is 0.88.

Analytic Strategy—The study consists of two sets of analyses. The first examines the effects of early parenting on wave 4 offending net of demographic controls, association with deviant peers and prior delinquent behavior. In addition to the zero-order relationships, multivariate models are estimated. Models 1 through 3 include each wave 1 parenting variable independently to assess its effect on adult offending net of the control variables. Model 4 includes all three of the wave 1 parenting variables. The second analysis consists of regression models examining whether in addition to the previously mentioned controls, net of these early family predictors, the character of adult parent-child relationships is significantly associated with variability in adult criminal behavior. Models 1 through 3 include all of the wave 1 parenting variables while introducing each wave 3 parenting variable independently. Model 4 presents a full model with all wave 1 and wave 3 parenting variables.

The dependent variable, respondent offending, is highly skewed to the right, meaning that a significant portion of respondents reported little to no delinquent involvement. Consequently, the skewed nature of the dependent variable violates the basic assumption of OLS regression that the dependent variable will be normally distributed and could potentially lead to biased estimates (Long, 1997). We transformed our delinquency measure by taking the natural log of the variable. While substantially reducing skewness, this does not fully correct for censoring of data that occurs as a result of the large number of

respondents who do not report any delinquent behavior. A Tobit model (Tobin, 1958) is then employed as this has been shown to provide accurate estimates of the parameters when dealing with potentially censored data (Osgood, Finken & McMorris, 2002) and is often used in analyses of delinquency (e.g., Hagan & McCarthy, 1992; Jarjoura, Triplett & Brinker, 2002; Piquero, Gover, MacDonald & Piquero, 2005). An examination of the errors revealed a normal distribution with a mean approaching zero (0.50).

RESULTS

Descriptive Results

Table 1 presents the weighted means and percentages for the dependent and independent variables. The TARS data are drawn from a stratified, random sample; thus, each respondent has a unique probability of inclusion. Survey weights are then calculated based upon the probabilities. This allows us to transform point estimates into values that are more representative of a national sample.

Scores for offending at wave 4 range from 1 to 6.11 with a mean of 1.38 indicating a low level offending. We also present scores for the transformed delinquency measure. It should be noted that 470 (46.7%) respondents report no delinquency involvement and are thus censored. With respect to the parenting variables, parental support appears to have increased slightly from wave 1 to wave 3, while parental monitoring and conflict by parents have slightly decreased between waves. T-tests reveal that these differences are significant thus supporting the notion that parenting behaviors are dynamic and subject to change over time.

Table 2 provides a correlation matrix for the dependent variable and our focal parenting variables. Parental support and overt conflict with parent demonstrate a strong relationship to one another, however, variance inflation scores for all of the variables in the models were well below 2.0, with tolerances well above 0.40. Thus, multicollinearity does not appear to be a concern.

Early Parenting and Later Offending Behaviors

Table 3 presents both the unstandardized and standardized coefficients of the tobit regression of respondent offending at wave 4 on the wave 1 parenting variables (parenting in adolescence) and accompanying controls. Column 1 displays the zero-order relationships of the focal parenting variables and respondent offending. Early parental support and monitoring are negatively and significantly associated with later offending, while overt conflict by parent at wave 1 is positively and significantly associated with later offending. These findings are consistent with the adolescent delinquency literature.

Model 1 examines the effect of parental support net of the control variables and the coefficient for parental support is reduced to non-significance. While it was not our intention to specifically test mediation models, a post-hoc analysis indicates that this is primarily due to the inclusion of peer delinquency and adolescent delinquent behavior. That is removal of these variables from the models returns early parental support to a level of significance. This suggests that early parental support exerts its negative impact on later offending indirectly by inhibiting earlier delinquent involvement and the development of deviant peer networks. Sobel tests reveal significant test statistics for both peer delinquency ($z = -4.75$; $p < .001$) and adolescent delinquency ($z = -6.11$; $p < .001$), supporting the notion that parental support does indeed operate indirectly via these two mechanisms. Among the control variables, age displays a significant positive effect on offending. This is not surprising given that the offenses that are common to our sample (i.e., public drunkenness and drug-related offenses), are those that are likely to decline more slowly and display a flatter age curve (Steffensmeier, Allan, Harer & Streifel, 1989). To investigate the possibility of a curvilinear

relationship, an alternative model (not shown) was also run that includes a quadratic term for age. However, this is not significant, and thus eliminated. Consistent with the extant literature, being female is negatively associated with offending. Blacks are less likely to engage in offending behaviors relative to Whites. Respondents whose mothers received more than 12 years of education are more likely to be engaged in offending in early adulthood. Consistent with expectations, at the zero-order adolescent delinquency is negatively related to mother's education (not shown). Once this early impact has been taken into account (i.e. controlling for adolescent delinquency), the association with wave four offending is positive. Furthermore, prior research has demonstrated that factors such as parental education that are associated with socioeconomic status may exert positive effects on delinquency at both the low and high levels (Wright, Caspi, Moffitt, Miech & Silva, 1999). Those who resided in a single parent home in adolescence are also more likely to report offending behaviors. Not surprisingly, peer delinquency and adolescent delinquency continue to exert positive and significant effects on offending net of the other covariates.

Model 2 appraises the effect of parental monitoring at wave 1, which remains significantly and negatively associated with adult offending ($b = -0.058$; $p < .05$). This implies that parents' investment in supervising their adolescent children's activities continues to yield dividends even as they age into early adulthood. The associations between the control variables and offending are similar in Model 2 as Model 1. One exception is that Black respondents share similar levels of offending as White respondents.

Results presented in Model 3 indicate that parental conflict is no longer significantly related to offending in the multivariate model. Again, post-hoc analysis via a Sobel test reveals a significant result ($z = 5.77$; $p < .001$), suggesting that poor relationships with parents is related to a greater likelihood of associating with deviant peers, which in turn increases offending. The control variables operate in a similar manner in Model 3 as in Model 1.

Model 4 includes all of the parenting variables along with the control variables. Parental monitoring remains significantly associated with offending ($b = -0.061$; $p < .01$), even after taking into account the other parenting dimensions and early delinquency. Thus, greater parental monitoring in adolescence is associated with lower offending in early adulthood. The control variables sustain the same relationships to offending as those demonstrated in Model 2.

Parenting in Young Adulthood and Later Offending Behaviors

Table 4 builds upon the previous models by introducing the wave 3 parenting variables (parenting in young adulthood). At the zero order level, the wave 3 parenting variables display the same pattern as those for wave 1. Wave 3 parental support, and monitoring are negatively and significantly associated with wave 4 offending. In contrast, overt conflict by parent exerts a significant and positive effect on adult offending.

Model 1 introduces parental support at wave 3 net of the wave 1 parenting and control variables. Parental support at wave 3 demonstrates a modest negative effect on wave 4 offending. The results for the control variables are similar to those presented in Table 3, except age is no longer significant.

Similarly, Model 2 shows that parental monitoring at wave 3 ($b = -0.036$; $p < .05$) is significantly tied to lower young adult offending. Results for the control variables are similar to those shown in Model 1.

Model 3 shows that parent conflict is not associated with offending at wave 4. A Sobel test ($z = 7.68$; $p < .001$) reveals that inclusion of peer delinquency serves to mediate the effect of

parental conflict on offending. Again, the control variables display a pattern consistent with the previous models.

Model 4 includes all three of the wave 3 parenting variables simultaneously along with the wave 1 parenting variables. In this model, parental support at wave 3 remains significantly associated with reduced offending ($b = -0.067$; $p < .05$), as does wave 3 monitoring ($b = -0.34$; $p < .05$). Post hoc analyses via a Sobel test ($z = -2.72$; $p < .01$) reveal that parent conflict operates to slightly suppress the effect of parental support. Due to the high correlation between parental support and overt conflict with parent, once conflict is held constant, the negative effect of parental support emerges as significant.

Examination of the log likelihood statistics reveals that inclusion of the parenting measures in young adulthood as shown in Model 4 of Table 4 significantly add to the model fit compared to the model with only the parenting in adolescence measures as shown in Model 4 of Table 3 ($\chi^2 = 10.41$, (3 *df*); $p < .05$). Thus, parenting in young adulthood provides additional explanation of the variation in offending among young adults.

DISCUSSION

Parents have long been a subject of interest to criminological scholars as an influential source in early socialization (Gottfredson & Hirschi, 1990; Moffitt, 1993), and there is extensive research on parenting in adolescence and teenage delinquency (e.g., Sampson & Laub, 1993; Hay, 2001; Scaramella, Conger, Spoth & Simons, 2002; Simons, Simons, Burt, Brody & Cutrona, 2005). Research has also focused on parents' relationships with their young adult children including studies of instrumental support (Schoeni & Ross, 2005), quality of parent-child relationships (Aquilino, 1997; Thornton, Orbach & Axinn, 1995), parents as sources of emotional support (Kenny, 1987) and as a continuing force of informal social control (Padilla-Walker et al. 2008). This article builds on these two bodies of work to examine how parent-child relationships might continue to influence the behavior of adult children with respect to offending outcomes.

We find that the early parenting measures of support, monitoring and conflict influence criminal offending among young adults. The effects of conflict and support are explained by peer delinquency and adolescent delinquency in the multivariate model. Thus, parental monitoring during adolescence is associated with effects that extend beyond the teenage years. While much of socialization occurs during early childhood and sets the stage for later parent-child interactions, adolescence is the time of both testing and pushing the boundaries of this early socialization (Gecas & Seff, 1990). Consequently, parental control that is not overly punitive and is consistent with early socialization, is likely to result in lower involvement in delinquent activities during adolescence (Wright & Cullen, 2001). Consistent with findings from Warr (1993), effective parental monitoring during these younger years may work to reduce opportunities to develop delinquent peer networks during adolescence, and consequently restrict opportunities for offending as young adults.

Parental support, monitoring and conflict that extends into the late teen years and beyond when respondents were 17 to 24 years of age, continues to influence offending in young adulthood. The effect of parental conflict is explained by peer delinquency in the multivariate model. Results for parental support and monitoring hold true net of earlier parenting and control variables. Peer delinquency mediated much of the effect of parental support on young adult offending thus demonstrating that parental support operates indirectly on adult offending via delinquent peers. This is consistent with a social learning perspective, which argues that parents help to shape the peer networks of their offspring and limit the time they spend with deviant others. However, for young adults it appears that

parents are more likely to accomplish this through caring and trust, rather than control and supervision. Thus, support from parents matters more in late adolescence and early adulthood than monitoring. It is to be expected that monitoring becomes less salient as young people grow older and move out of the parental home thereby promoting greater autonomy. Although young people may enjoy the increase in freedom, emotional attachment to parents undoubtedly remains a priority. Empirical evidence from the developmental literature suggests that ongoing parental attachment produces positive outcomes, in terms of identity development and overall well-being in young adulthood (Kenny, 1987; Samoulis, Layburn & Schiaffino, 2001). Taken together, early and later parental monitoring, and later parental support are associated with lower levels of offending.

Consistent with delinquency research, peer delinquency and wave 1 delinquency are tied to later offending (Sampson & Laub, 1993; Moffitt, 1993; Haynie & Osgood, 2005). We find living with a spouse or partner was negatively and significantly related to offending. However, we do not observe this relationship at the zero-order. This suggests that consistent with Laub and Sampson (1993) living with a spouse or partner does indeed offer a protective benefit against continued offending. However, such effects may be contingent upon the presence of other risk factors (specifically adolescent delinquency and family structure).

It is possible that offspring who are less delinquent to begin with are more likely to elicit affection and support from parents. The use of longitudinal data is an asset here in that this permits processes measured at wave 3 to predict offending at wave 4. This does not however, fully identify reciprocal relationships between parental behavior and subsequent offspring behavior and address the question of causal order. It is possible that a positive or negative feedback loop exists whereby conforming behavior by the child is rewarded with affection and support by the parent, which in turn reinforces continued prosocial behaviors on the part of the offspring. Conversely, delinquent behavior may elicit negative feedback from parents which fosters further deviant behavior. Another potential avenue for future exploration would be consideration of how poor relationships with parents in adolescence carry over into early adulthood and potentially impact social relationships with others including romantic partners and those in occupational arenas.

Future research efforts should also seek to identify and explore the specific processes and mechanisms through which parental support and control influence offspring behavior. In particular, it would be useful to examine how parental support and monitoring efforts alter as their children grow increasingly autonomous. One way in which parents may continue to provide support is through material assistance (Schoeni & Ross, 2005). Additionally, parents with children in semi-autonomous living arrangements (i.e. living away at college), may need to adapt their supervisory and control efforts. Material assistance, including parents' willingness to allow adult children to return home in times of need, may be a means for providing both support and control. To date, no studies exist that specifically examine how parents use their financial resources to discourage deviant behavior among their young adult offspring. As noted by Shanahan and his colleagues, there is some evidence to suggest that the sequencing of adult transitions such as marriage, career commitment, and establishment of an independent household are becoming increasingly divergent (Shanahan, Porfeli, Mortimer & Erickson, 2005). Consequently, some young people accomplish the transition to adulthood more smoothly than others (Schwartz, Côté & Arnett, 2005). How parents respond and adapt as their offspring negotiate the transition remains a fertile area for exploration.

Additional limitation that should be noted is that the current study used only reports from offspring to assess the parent-child relationship. Ideally, a comprehensive examination of such relationships would include those of both parent and child. However, given that our

primary interest is on an outcome associated with the child, the child's own perceptions of the relationship would seem to be most pertinent. Finally, the current study is limited to a sample in one region, and further work with nationally representative samples is warranted.

Our study showcases that parenting influences young adult offending behavior. Furthermore, previous work examining the ongoing influence of parents in young adulthood has made use of small, college-based samples (e.g. Samuolis, Layburn & Schiaffino, 2001; Padilla-Walker et al., 2008). Such samples tend to be predominantly White and score higher on socioeconomic status. Additionally, delinquent adolescents may experience educational interruption and select into early employment, and in some cases fail to complete high school or attain G.E.D. (Chung, Little, & Steinberg, 2005). Consequently, studies that restrict their sample to college students are likely to be missing those who are most likely to be engaged in offending behaviors. The current study possesses the advantage of having examined the influence of parents on their adult children using a more diverse sample of young people in terms of race/ethnicity, educational attainment and socioeconomic status.

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REFERENCES

- Agnew R. Foundation for a general strain theory of crime and delinquency. *Criminology*. 1992; 30(1): 47–87.
- Anderson AL, Hughes LA. Exposure to situations conducive to delinquent behavior: The effects of time use, income and transportation. *Journal of Research in Crime and Delinquency*. 2009; 46(1):5–34.
- Aquilino WS. From adolescent to young adult: A prospective study of parent-child relations during the transition to adulthood. *Journal of Marriage & Family*. 1997; 59:670–686.
- Aquilino WS, Supple AJ. Long-term effects of parenting practices during adolescence on well-being outcomes in young adulthood. *Journal of Family Issues*. 2001; 22(3):289–308.
- Arnett JJ. Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*. 2000; 55(5):469–480. [PubMed: 10842426]
- Arnett, JJ. *Emerging adulthood: The winding road from the late teens through the twenties*. New York, NY: Oxford University Press; 2004.
- Arnett JJ. The developmental context of substance use in emerging adulthood. *The Journal of Drug Issues*. 2005:235–254.
- Arnett, JJ. Socialization in emerging adulthood: From the family to the wider world, from socialization to self-socialization. In: Grusec, JE.; Hastings, PD., editors. *Handbook of socialization: Theory and research*. New York, NY: Guilford press; 2007. p. 208–231.
- Burt CH, Simons RL, Simons LG. A longitudinal test of the effects of parenting and the stability of self-control: Negative evidence for the general theory of crime. *Criminology*. 2006; 44(2):353–396.
- Cernkovich SA, Giordano PC. Family relationships and delinquency. *Criminology*. 1987; 25:295–321.
- Chassin L, Pitts SC, Prost J. Binge drinking trajectories from adolescence to emerging adulthood in a high-risk sample: Predictors and substance abuse outcomes. *Journal of Consulting and Clinical Psychology*. 2002; 70(1):67–78. [PubMed: 11860058]
- Chung, HL.; Little, M.; Steinberg, L. The transition to adulthood for adolescents in the juvenile justice system: A developmental perspective. In: Osgood, DW.; Foster, EM.; Flanagan, C.; Ruth, G., editors. *On your own without a net: The transition to adulthood for vulnerable populations*. Chicago, IL: The University of Chicago Press; 2005. p. 68–91.

- Collins WA. Relationships and development during adolescence: Interpersonal adaptation to individual change. *Personal Relationships*. 1996; 3:308–318.
- Demuth S, Brown SL. Family structure, family processes and delinquency: The significance of parental absence versus parental gender. *Journal of Research in Crime and Delinquency*. 2004; 41(1):58–81.
- Elliot DS, Ageton SS. Reconciling race and class differences in self-reported and official estimates of delinquency. *American Sociological Review*. 1980; 45(1):95–110.
- Fussell, E.; Furstenberg, FFJ. The transition to adulthood during the twentieth century: Race, nativity and gender. In: Settersten, RAJ.; Furstenberg, FFJ.; Rumbaut, RG., editors. *On the frontier of adulthood*. Chicago, IL: The University of Chicago Press; 2005. p. 29-75.
- Galambos NL, Turner PK, Tilton-Weaver LC. Chronological and subjective age in emerging adulthood: The crossover effect. *Journal of Adolescent Research*. 2005; 20(5):538–556.
- Gecas V, Seff MA. Families and adolescents: A review of the 1980s. *Journal of Marriage and Family*. 1990; 52:941–958. (4, Family Research in the 1980s: The Decade in Review).
- Giordano PC, Schroeder RD, Cernkovich SA. Emotions and crime over the life course: A neo-Meadian perspective on criminal continuity and change. *American Journal of Sociology*. 2007; 112(6):1603–1661.
- Gottfredson, MR.; Hirschi, T. *A general theory of crime*. Stanford, CA: Stanford University Press; 1990.
- Grusec, JE.; Davidov, M. Socialization in the family: The roles of parents. In: Grusec, JE.; Hastings, PD., editors. *Handbook of socialization: Theory and research*. New York, NY: Guilford Press; 2007. p. 284-308.
- Hagan J, McCarthy B. Streetlife and delinquency. *The British Journal of Sociology*. 1992; 43(4):533–561. [PubMed: 1477723]
- Hay C. Parenting, self-control, and delinquency: A test of self-control theory. *Criminology*. 2001; 39(3):707–736.
- Hay C. Family strain, gender, and delinquency. *Sociological Perspectives*. 2003; 46(1):107–135.
- Hay C, Forrest W. The development of self-control: Examining self-control theory's stability thesis. *Criminology*. 2006; 44(4):739–774.
- Haynie DL, Osgood DW. Reconsidering peers and delinquency: How do peers matter? *Social Forces*. 2005; 84(2):1109–1130.
- Heimer K, DeCoster S. The gendering of violent delinquency. *Criminology*. 1999; 37(2):277–318.
- Hirschi, T. *Causes of delinquency*. Berkeley, CA: University of California Press; 1969.
- Jang SJ. Age-varying effects of family, school, and peers on delinquency: A multilevel modeling test of interactional theory. *Criminology*. 1999; 37(3):643–686.
- Jarjoura GR, Triplett RG, Brinker GP. Growing up poor: Examining the link between persistent childhood poverty and delinquency. *Journal of Quantitative Criminology*. 2002; 18(2):159–187.
- Kenny ME. The extent and function of parental attachment among first-year college students. *Journal of Youth & Adolescence*. 1987; 16(1):17–29.
- Lamborn SD, Mounts NS, Steinberg L, Dornbusch SM. Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development*. 1991; 62(5):1049–1065. [PubMed: 1756655]
- Laub JH, Sampson RJ. Turning points in the life course: Why change matters to the study of crime. *Criminology*. 1993; 31(3):301–325.
- Laub, JH.; Sampson, RJ. *Shared beginning, divergent lives: Delinquent boys to age 70*. Cambridge, MA: Harvard University Press; 2003.
- Long, JS. *Regression models for categorical and limited dependent variables*. Thousand Oaks, CA: Sage Publications; 1997.
- McKinney C, Renk K. Differential parenting between mothers and fathers: Implications for late adolescents. *Journal of Family Issues*. 2008; 29(6):806–827.
- Moffitt TE. Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*. 1993; 100(4):674–701. [PubMed: 8255953]

- Osgood DW, Finken LL, McMorris BJ. Analyzing multiple-item measures of crime and deviance II: Tobit regression analysis of transformed scores. *Journal of Quantitative Criminology*. 2002; 18(4): 319–347.
- Padilla-Walker LM, Nelson LJ, Madsen SD, Barry CM. The role of perceived parental knowledge on emerging adults' risk behaviors. *Journal of Youth & Adolescence*. 2008; 37(7):847–859.
- Patterson GR. Performance models for antisocial boys. *American Psychologist*. 1986; 41(4):432–444. [PubMed: 3717751]
- Piquero NL, Gover AR, MacDonald JM, Piquero AR. The influence of delinquent peers on delinquency: Does gender matter? *Youth & Society*. 2005; 36(3):251–275.
- Renk K, Roddenberry A, Oliveros A, Roberts R, Meehan C, Liljequist L. An examination of conflict in emerging adulthood between college students and their parents. *Journal of Intergenerational Relationships*. 2006; 4(4):43–61.
- Samoulis J, Layburn K, Schiaffino KM. Identity development and attachment to parents in college students. *Journal of Youth and Adolescence*. 2001; 30(3):373–384.
- Sampson, RJ.; Laub, JH. *Crime in the making: Pathways and turning points through life*. Cambridge, MA: Harvard University Press; 1993.
- Scaramella LV, Conger Rand D, Spoth R, Simons RL. Evaluation of a social contextual model of delinquency: A cross-study replication. *Child Development*. 2002; 73(1):175–195. [PubMed: 14717251]
- Schoeni, RF.; Ross, KE. Material assistance from families during the transition to adulthood. In: Settersten, RAJ.; Furstenberg, FFJ.; Rumbaut, RG., editors. *On the frontier of adulthood: Theory, research, and public policy*. Chicago, IL: The University of Chicago Press; 2005. p. 396-416.
- Schroeder RD, Giordano PC, Cernkovich SA. Adult child-parent bonds and life course criminality. *Journal of Criminal Justice*. 2010 Forthcoming.
- Schulenberg, JE.; Zarrett, NR. Mental health during emerging adulthood: Continuity and discontinuity in courses, causes and functions. In: Arnett, JJ.; Tanner, JL., editors. *Emerging adults in america: Coming of age in the 21st century*. Washington, DC: American Psychological Association; 2006. p. 135-172.
- Schwartz SJ, Côté JE, Arnett JJ. Identity and agency in emerging adulthood: Two developmental routes in the individualization process. *Youth & Society*. 2005; 37(2):201–229.
- Settersten RAJ. A time to leave home and a time never to return? Age constraints on the living arrangements of young adults. *Social Forces*. 1998; 76(4):1373–1400.
- Shanahan MJ. Pathways to adulthood in changing societies: Variability and mechanisms in life course perspective. *Annual Review of Sociology*. 2000; 26(1):667.
- Shanahan, MJ.; Porfeli, EJ.; Mortimer, JT.; Erickson, LD. Subjective age identity and the transition to adulthood: When do adolescents become adults?. In: Settersten, RAJ.; Furstenberg, FFJ.; Rumbaut, RG., editors. *On the frontier of adulthood*. Chicago, IL: The University of Chicago Press; 2005. p. 225-255.
- Simons LG, Conger RD. Linking mother-father differences in parenting to a typology of family parenting styles and adolescent outcomes. *Journal of Family Issues*. 2007; 28(2):212–241.
- Simons RL, Simons LG, Burt CH, Brody GH, Cutrona C. Collective efficacy, authoritative parenting and delinquency: A longitudinal test of a model integrating community-and family-level processes. *Criminology*. 2005; 43(4):989–1029.
- Steffensmeier DJ, Allan EA, Harer MD, Streifel C. Age and the distribution of crime. *The American Journal of Sociology*. 1989; 94(4):803–831.
- Thornton A, Orbuch TL, Axinn WG. Parent-child relationships during the transition to adulthood. *Journal of Family Issues*. 1995; 16(5):538–564.
- Tobin J. Estimation of relationships for limited dependent variables. *Econometrica*. 1958; 26(1):24–36.
- U.S. Census Bureau. U.S. census bureau news. Retrieved 09/14, 2009, from http://www.census.gov/Press-Release/www/releases/archives/families_households/013378.html
- Warr M. Parents, peers, and delinquency. *Social Forces*. 1993; 72(1) 247-248-264.
- Warr M. Life-course transitions and desistance from crime. *Criminology*. 1998; 36(2):183–216.

- Warr M. The tangled web: Delinquency, deception, and parental attachment. *Journal of Youth & Adolescence*. 2007; 36(5):607–622.
- Wright BRE, Caspi A, Moffitt TE, Silva PA. Low self-control, social bonds, and crime: Social causation, social selection, or both? *Criminology*. 1999; 37(3):479–514.
- Wright BRE, Caspi A, Moffitt TE, Miech RA, Silva PA. Reconsidering the relationship between SES and delinquency: Causation but not correlation. *Criminology*. 1999; 37(1):175–194.
- Wright JP, Cullen FT. Parental efficacy and delinquent behavior: Do control and support matter? *Criminology*. 2001; 39(3):677–705.
- Youniss, J.; Smollar, J. Adolescent relations with mothers, fathers, and friends. Chicago, IL: University of Chicago Press; 1985.

Table 1

Descriptive Statistics (N = 1007)

			Range	
Variable	Mean/%	SD	Min	Max
Dependent Variable				
Respondent Offending	1.38	0.64	1.00	6.11
Respondent Offending (log)	0.26	0.35	0.00	1.81
Parenting Variables				
Parental support (W1)	3.94	0.63	1.00	5.00
Parental support (W3)	4.06	0.64	1.00	5.00
Parental monitoring (W1)	2.42	0.82	1.00	5.00
Parental monitoring (W3)	2.35	1.08	1.00	5.00
Overt Conflict by Parent (W1)	2.11	1.01	1.00	5.00
Overt Conflict by Parent (W3)	1.95	0.94	1.00	5.00
Control Variables				
Age	20.25	1.71	17.00	24.00
Gender				
Male	50.48%			
Female	49.52%			
Race				
White non-Hispanic	67.54%			
Black non-Hispanic	25.28%			
Hispanic	7.18%			
Employment Status				
Unemployed	35.82%			
Employed Part-time	32.25%			
Employed Full-time	31.93%			
Educational Achievement				
Less than 12 years	12.08%			
Current High school. student or graduate	49.57%			
More than 12 years	38.35%			
Mother's Education (W1)				
Less than 12 years	10.11%			
High school graduate	35.20%			
More than 12 years	54.69%			
Family Structure (W1)				
Two biological parent	52.38%			
Step-parent	17.08%			
Single parent	25.05%			
Other Living Arrangement	5.48%			
Current Living Arrangement				
Live alone/with friends	14.87%			

Variable	Mean/%	SD	Range	
			Min	Max
Live with parents/spouse/partner	85.13%			
Peer Delinquency (W3)	1.81	1.16	1.00	8.33
Adolescent Delinquency (W1)	1.27	0.59	1.00	8.00

Source: Toledo Adolescent Relationships Study

Note: All variables measured at Wave 4 unless otherwise noted.

Table 2
Correlation Matrix for Respondent Offending at Wave 4 and Parenting Variables

	1	2	3	4	5	6	7
1. Respondent Offending (log)	1.000	- 0.153***	- 0.131***	0.087**	- 0.131***	- 0.153***	0.118***
2. Parental Support (W3)		1.000	0.067*	- 0.516***	0.488***	- 0.076*	- 0.346***
3. Parental Monitoring (W3)			1.000	- 0.018	0.030	0.124***	0.001
4. Overt Conflict by Parent (W3)				1.000	- 0.321***	0.124***	0.437***
5. Parental Support (W1)					1.000	- 0.030	- 0.496
6. Parental Monitoring (W1)						1.000	0.010
7. Overt Conflict by Parent (W1)							1.000

Source: Toledo Adolescent Relationships Study

$\hat{r}$
p < .10;

*
p < .05;

**
p < .01;

p < .001

Table 3

Tobit Results for Respondent Offending at Wave 4 Regressed on Wave 1 Parenting Variables and Controls (N = 1007)

Variable	Zero order	Model 1	Model 2	Model 3	Model 4
	<i>b</i>	<i>b</i>	β	<i>b</i>	β
Intercept		- 0.790***	- 0.601*	- 0.910***	- 0.418
<i>Parenting in Adolescence</i>					
Parental Support (W1)	- 0.122***	- 0.024	- 0.028		- 0.034 - 0.039
Parental Monitoring (W1)	- 0.129***		- 0.058*		- 0.061** - 0.090
Overt Conflict by Parent (W1)	0.064***			0.006	0.010 - 0.003 - 0.005
<i>Controls</i>					
Age		0.020*	0.013	0.021*	0.069 0.012 0.040
Gender					
(Male)					
Female	- 0.108***	0.100	- 0.105**	- 0.098	- 0.110*** - 0.102 - 0.103** - 0.096
Race					
(White non-Hispanic)					
Black non-Hispanic	-0.088*	- 0.069	- 0.071	- 0.056	- 0.090* - 0.071 - 0.068 - 0.054
Hispanic	- 0.039	- 0.023	- 0.029	- 0.017	- 0.043 - 0.025 - 0.023 - 0.013
Employment Status					
(Unemployed)					
Employed Part-time	0.009	0.007	0.010	0.009	0.008 0.010 0.008
Employed Full-time	-0.022	- 0.019	- 0.018	- 0.022	- 0.020 - 0.018 - 0.016
Educational Attainment					
Less than 12 years	0.006	0.004	0.008	0.005	0.005 0.004 0.002
(Current H.S. student/graduate)					
More than 12 years	0.051	0.046	0.047	0.043	0.049 0.045 0.049 0.044
Mother's Education (W1)					
Less than 12 years	0.057	0.033	0.063	0.037	0.058 0.034 0.061 0.036
(High school graduate)					

Variable	Zero order	Model 1	Model 2	Model 3	Model 4
	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>
More than 12 years		0.084 [*]	0.078	0.075	0.081 [*]
Family Structure (W1)					
(Two biological parent)		-----	-----	-----	-----
Step-parent		- 0.016	- 0.011	- 0.006	- 0.004
Single parent		0.113 ^{**}	0.091	0.090	0.108 [*]
Other living arrangement		0.151 [†]	0.063	0.143 [†]	0.154 [*]
Current Living Arrangements					
Live alone/with friends		0.064	0.042	0.063	0.064
(Live w/parent/spouse/partner)		-----	-----	-----	-----
Peer Delinquency (W3)		0.176 ^{***}	0.351	0.177 ^{***}	0.176 ^{***}
Adolescent Delinquency (W1)		0.153 ^{***}	0.165	0.156 ^{***}	0.141 ^{***}
Sigma		0.466	0.464	0.466	0.464
Log Likelihood		- 664.227	- 661.340	- 664.553	- 660.653

Source: Toledo Adolescent Relationships Study

[†] $p < .10$;

^{*} $p < .05$;

^{**} $p < .01$;

^{***} $p < .001$

Note: All variables measured at Wave 4 unless otherwise noted.

Table 4
Tobit Results for Respondent Offending at Wave 4 Regressed on Wave 3 Parenting Variables and Controls (N = 1007)

Variable	Model 1		Model 2		Model 3		Model 4	
	b	β	b	β	b	β	b	β
Intercept	- 0.284		- 0.362		- 0.361		- 0.068	
<i>Parenting in Young Adulthood</i>								
Parental Support (W3)	- 0.132***	- 0.050 [†]	- 0.060				- 0.067*	- 0.079
Parental Monitoring (W3)	- 0.076***		- 0.036*	- 0.072			- 0.034*	- 0.069
Overt Conflict by Parent (W3)	0.044 [†]				- 0.018	- 0.030	- 0.036	- 0.061
<i>Parenting in Adolescence</i>								
Parental Support (W1)	- 0.122***	- 0.013	- 0.033	- 0.038	- 0.038	- 0.043	- 0.013	- 0.015
Parental Monitoring (W1)	- 0.129***	- 0.092	- 0.056*	- 0.082	- 0.060**	- 0.088	- 0.056*	- 0.083
Overt Conflict by Parent (W1)	0.064***	- 0.007	- 0.002	- 0.004	0.003	0.005	0.004	0.007
<i>Controls</i>								
Age	0.013	0.042	0.013	0.042	0.011	0.034	0.011	0.035
Gender								
(Male)	-----	-----	-----	-----	-----	-----	-----	-----
Female	- 0.107**	- 0.099	- 0.096**	- 0.089	- 0.101**	- 0.094	- 0.097**	- 0.090
Race								
(White non-Hispanic)	-----	-----	-----	-----	-----	-----	-----	-----
Black non-Hispanic	- 0.071	- 0.056	- 0.068	- 0.054	- 0.068	- 0.054	- 0.072	- 0.056
Hispanic	- 0.024	- 0.014	- 0.016	- 0.009	- 0.023	- 0.014	- 0.019	- 0.011
Employment Status								
(Unemployed)	-----	-----	-----	-----	-----	-----	-----	-----
Part-time	0.010	0.009	0.007	0.006	0.009	0.008	0.007	0.006
Full-time	- 0.018	- 0.016	- 0.022	- 0.019	- 0.019	- 0.017	- 0.024	- 0.021
Educational Attainment								
Less than 12 years	- 0.002	- 0.001	0.003	0.002	0.009	0.005	0.003	0.002
(High school student/graduate)	-----	-----	-----	-----	-----	-----	-----	-----
More than 12 years	0.053	0.048	0.051	0.046	0.047	0.043	0.053	0.048

Variable	Model 1		Model 2		Model 3		Model 4	
	b	β	b	β	b	β	b	β
Mother's Education (W1)								
Less than 12 years	0.063	0.037	0.065	0.038	0.063	0.037	0.071	0.042
(High school graduate)								
More than 12 years	0.077*	0.072	0.086*	0.080	0.081*	0.076	0.085*	0.077
Family Structure (W1)								
(Two biological parent)								
Step-parent	- 0.015	- 0.010	- 0.008	- 0.006	- 0.012	- 0.008	- 0.010	- 0.007
Single parent	0.108*	0.087	0.110**	0.089	0.109**	0.088	0.113**	0.091
Other living arrangement	0.130 [†]	0.055	0.141 [†]	0.059	0.133 [†]	0.056	0.121	0.051
Current Living Arrangement								
Live alone/with friends	0.064	0.042	0.065	0.043	0.064	0.042	0.067	0.045
(Live w/parent/spouse/partner)								
Peer Delinquency (W3)	0.170***	0.339	0.172***	0.343	0.178***	0.355	0.172***	0.342
Adolescent Delinquency (W1)	0.144***	0.155	0.139***	0.149	0.140***	0.151	0.139***	0.150
Sigma	0.463		0.463		0.464		0.461	
Log Likelihood	- 659.245		- 657.907		- 660.315		- 655.450	

Source: Toledo Adolescent Relationships Study

[†] p < .10;

* p < .05;

** p < .01;

*** p < .001

Note: All variables measured at Wave 4 unless otherwise noted.