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Childhood abuse and later parenting outcomes in two American Indian tribes☆

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Abstract

Objectives—To examine the relationship of childhood physical and sexual abuse with reported parenting satisfaction and parenting role impairment later in life among American Indians (AIs).

Methods—AIs from Southwest and Northern Plains tribes who participated in a large-scale community-based study (n = 3,084) were asked about traumatic events and family history; those with children were asked questions about their parenting experiences. Regression models estimated the relationships between childhood abuse and parenting satisfaction or parenting role impairment, and tested for mediation by depression or substance use disorders.

Results—Lifetime substance use disorder fully mediated the relationship between childhood physical abuse and both parenting satisfaction and parenting role impairment in the Northern Plains tribe. There was only partial mediation between childhood sexual abuse and parenting role impairment in the Southwest. In both tribes, lifetime depression did not meet the criteria for mediation of the relationship between childhood abuse and the two parenting outcomes. Instrumental and perceived social support significantly enhanced parenting satisfaction; negative social support reduced satisfaction and increased the likelihood of parenting role impairment. Exposure to parental violence while growing up had deleterious effects on parenting outcomes. Mothers and fathers did not differ significantly in the relation of childhood abuse experience and later parenting outcomes.

Conclusions—Strong effects of social support and mediation of substance abuse disorders in the Northern Plains offer direct ways in which childhood victims of abuse could be helped to avoid negative attributes of parenting that could put their own children at risk.

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Practice implications—Mothers were not significantly different from fathers in the relation of abusive childhood experiences and later parenting outcomes, indicating both are candidates for interventions. Strong effects of social support offer avenues for interventions to parents. The prevalence of substance use disorders and their role as a mediator of two parenting outcomes in the Northern Plains should focus special attention on substance use treatment, especially among those who experienced childhood victimization. These factors offer direct ways in which childhood victims of abuse can be helped to avoid negative attributes of parenting that could put their own children at risk of violence.

Keywords

American Indian; Child abuse; Parenting; Social support; Substance abuse; Depression

Introduction

Childhood physical abuse and childhood sexual abuse have been shown to have negative long-term health consequences, including the development of psychiatric disorders (MacMillan et al., 2001; Mullen, Martin, Romans, & Herbison, 1996; Widom, 1999) and alcohol and drug use disorders (Langeland & Hartgers, 1998; Libby et al., 2004). A related literature reports on the influence of childhood abuse on social consequences, such as parenting behaviors and attitudes (Alexander, Teti, & Anderson, 2000; Banyard, 1997; Banyard, Williams, & Siegel, 2003; Zuravin & Fontanella, 1999); while diverse in design, these studies all found some negative effects. The importance of parenting outcomes is twofold: first, parenting plays a special role in the intergenerational transmission of health and health risks at the biological, psychological and environmental levels, as has been demonstrated for substance use among parental substance users (Avenevoli & Merikangas, 2003; Johnson & Leff, 1999), and second, parenting plays a role in the intergenerational transmission of childhood abuse (Cappell & Heiner, 1990; Newcomb & Locke, 2001; Simons, Whitbeck, Conger, & Chyi-In, 1991).

This study examined the empirical relationship between childhood abuse and later parenting for two representative samples of American Indian tribal communities. American Indian populations are an important case study due to elevated rates of trauma that increase risks for negative health and social outcomes (Libby et al., 2005). This study filled the gaps in prior work by (1) utilizing data with broader and more detailed measures of child and adult adversities; (2) using standardized clinical measures—depression and substance use disorders—as possible mediators of diminished parenting outcomes; (3) using a comparative approach with two American Indian populations with different social and cultural histories; and (4) including male and female respondents to permit consideration of differential parenting outcomes between mothers and fathers.

Childhood abuse

The empirical literature on childhood abuse in American Indian communities is limited. Kunitz and colleagues (Kunitz, Levy, McCloskey, & Gabriel, 1998) reported that 12.7% of Navajo adults identified through Indian Health Service clinical records had experienced physical abuse before the age of 15. The prevalence of childhood sexual abuse was

estimated for this population to be 2.4% among men and 12.7% among women (Kunitz, Gabriel, & Levy, 2000). Another study compared rates of childhood abuse in two American Indian tribal populations with the National Comorbidity Survey (Libby et al., 2004) and found that tribal prevalence was higher than that reported for the U.S. general population. For example, 8% and 10% of the Southwest and Northern Plains tribes, respectively, experienced physical abuse prior to age 16, compared to 3.3% for the U.S. population (Kessler, Davis, & Kendler, 1997).

Studies have linked childhood physical and sexual abuse with adult alcohol and drug use problems and depression in U.S. populations (Brown & Anderson, 1991; Read, 1998) and American Indian populations (Kunitz et al., 1998; Libby et al., 2005; Libby et al., 2004). Because of the associations known to exist between childhood abuse and adult psychiatric disorders, and also between parenting and these disorders, psychiatric symptoms and disorders have been studied in the parenting literature as moderators of the relationship between childhood abuse and later parenting outcomes (Anderson & Hammen, 1993; Boyle & Pickles, 1997; Compas, Phares, Banez, & Howell, 1991; Hirsch, Moos, & Reischl, 1985; Lee & Gotlib, 1991; Radke-Yarrow, Nottelmann, Martinez, Fox, & Belmont, 1992; Thomas, Forehand, & Neighbors, 1995). Our study contributed to this literature by considering both depression and substance use disorders as possible mediators of the relationship between childhood abuse and later parenting outcomes.

Childhood abuse and later parenting

The literature on trauma and chronic stress and strain investigates the mechanisms by which negative experiences, both isolated in time and chronic, may be translated into negative health outcomes (Pearlin, 1999; Turner & Lloyd, 2003; Wheaton, 1999). The development of this literature began with a trauma checklist/life events approach, enumerating exposure to adverse experiences. The conceptual framework for this literature progressed to a multidimensional construct in which chronic strain referred to the experience of an event over time; chronic stress implied a larger context that includes historical, familial, and childhood factors along with recurrent or long-lasting traumas and lifetime events. Banyard and colleagues recently described the attachment and social learning models of behavioral transmission from childhood to parenting, as well as the ecological framework that explicitly considered the influence of neighborhood-level measures of economic (dis)advantage and social norms in child-rearing on parenting outcomes (Banyard et al., 2003). One influence on parenting via this ecological framework was social capital, which may be manifest in networks of relationships that provide social support (Portes, 1998). The ecological framework also allowed context (including individual and community characteristics and personal resources such as social support) to play a prominent role in the relationship between trauma and outcomes (Pearlin, 1999; Turner & Avison, 2003).

Parenting behaviors and attitudes are outcomes of interest when considering the long-term effects of childhood abuse. A series of innovative studies have examined childhood sexual abuse and parenting perceptions among 518 low-income, mostly African-American mothers in Baltimore, Maryland using data from the National Data Archive on Child Abuse and Neglect (http://www.ndacan.cornell.edu/). Outcomes included parenting behaviors and

attitudes, and multivariate techniques isolated the effect of childhood sexual abuse from other individual or family factors (Banyard, 1997; Zuravin & Fontanella, 1999). Banyard used outcomes of parenting behaviors and attitudes: expectations for future parenting, use of physical discipline, frequency of worry about the child, and satisfaction as a parent. Banyard's analysis adjusted for education, employment status, ethnicity, age, number of children, current depressive symptoms, experiences of childhood physical abuse or neglect, and negative family relationships. The parent's history of childhood sexual abuse was significantly associated with the increased use of physically abusive tactics to settle parent-child conflict and with decreased parental satisfaction.

Zuravin and Fontanella (1999) further developed this approach by including maternal depression, lifetime depressive syndrome, verbal abuse, marital status, and parental emotional support in their analyses. Outcome variables for these analyses were scales of verbally abusive parenting, severe violence, and self-assessed parenting competence. In multivariate analyses, childhood sexual abuse was significantly associated with increased use of severe violence and decreased ratings of parenting competence. Conclusions drawn from these studies were limited by the narrow sample of mothers: all were Aid to Families of Dependent Children (AFDC) clients and lived in a poor, urban area.

A study that focused on role reversal among mothers who had been sexually abused while growing up also considered parenting stress as an outcome (Alexander et al., 2000). Alexander and colleagues found that in their sample of 90 mothers, current relationship satisfaction was significantly related to parenting stress, but the parent's history of childhood sexual abuse and childhood parental alcohol abuse were not related to parenting stress.

A recent addition to the literature represents the furthest advancement of this work, testing both conceptual models and specific mediation models (Banyard et al., 2003). Banyard and colleagues studied a convenience sample of 152 mothers (some of whom had experienced childhood sexual abuse and some of whom had not) from a larger sample of women who had all been seen at the same city hospital in childhood. The researchers used a multiple adversities specification and extended work on mental health outcomes to parenting outcomes. The article reported evidence for maternal depression as a mediator between a parent's history of childhood or adult trauma and parenting satisfaction, but not as a mediator between childhood abuse and parenting satisfaction.

The current study fills gaps in the existing literature in three main ways. First, we measured the association between childhood abuse and later parenting outcomes for two American Indian tribes, an important subpopulation with elevated rates of childhood physical and sexual abuse, psychiatric disorders, and parental problems while growing up. Second, we tested for depression and substance use disorders as mediators of the relationship between childhood abuse and parenting outcomes. Third, we included mothers and fathers in the study population, allowing comparison of the relationship of childhood abuse and later parenting outcomes by gender. The purpose of this study is to assess the relationship between childhood adversities and later parenting outcomes in two American Indian tribes, specifically examining the roles of adult depression and substance use disorders.

Methods

Study design and sample

The primary objective of the American Indian Service Utilization and Psychiatric Epidemiology Risk and Protective Factors Project (AI-SUPERPFP) was to estimate the prevalence of psychiatric disorders and health service utilization in two American Indian reservation populations. The AI-SUPERPFP methods are described in greater detail elsewhere (Beals, Manson, Mitchell, Spicer, & the AI-SUPERPFP Team, 2003). The study sample was drawn from enrolled members of Southwest and Northern Plains tribes who were 15–54 years old in 1997 and who lived on or within 20 miles of their reservations. In work with American Indian groups, maintenance of community confidentiality is as important as that of individual confidentiality (Norton & Manson, 1996). Therefore, the general cultural descriptors “Southwest” and “Northern Plains” are used in this paper rather than specific tribal names.

The selection of these two tribes provided an opportunity to account simultaneously for both diversity and common experiences (Beals et al., 2003). These two tribal cultures differ in histories of migration, principles for kinship and residence, and historical forms of subsistence. They share with each other and with other American Indian populations some cultural similarities: histories of colonization, including dramatic military resistance, externally imposed forms of governance, forced dietary changes, mandatory boarding school education, and active missionary movements. Both tribes present considerable variability in acculturation, education, and income.

Each population was identified using tribal rolls, which were stratified by age and gender before random sampling (Cochran, 1977). Data were collected by face-to-face interviews between 1997 and 1999; as a result, some sample members had reached the age of 57 and a smaller number were 15 years of age at the time of interview. Overall response rates were 76.8% for the Northern Plains and 73.7% for the Southwest tribe. Written informed consent was obtained from all respondents; for minors, parental/guardian permission was first acquired before adolescent assent was obtained. IRB approval was obtained through the Colorado Multiple Institutional Review Board (COMIRB).

This study focused only on AI-SUPERPFP respondents who were parents. Parents were identified from the sample using the item “How many children do you have?” Respondents who indicated they had at least one child were considered parents. In the Southwest (SW), 72.5% (n = 1,049) were parents; 61.6% (n = 1,172) of the Northern Plains (NP) respondents were parents. Both genders were included to allow for a test of differences between fathers and mothers.

Measurement

Childhood and adult abuse—The Trauma section of the AI-SUPERPFP interview asked about 16 traumas; for each, data were collected on whether respondents had ever experienced the trauma and, if so, how often and at what age(s). Childhood (as opposed to adolescent) physical and sexual abuse were defined as experiences that occurred prior to 13 years of age, as was done in two prior studies (Libby et al., 2005; Libby et al., 2004).

Physical abuse was defined as being (1) “physically abused or hurt by your parent or caregiver” or (2) “physically abused or hurt by someone else you knew.” Sexual abuse was defined as being (1) “raped, or did you ever have sex when you didn’t want to because someone forced you in some way, or threatened to harm you if you didn’t” or (2) “touched or made to touch someone else in a sexual way because they forced you in some way, or threatened to harm you if you didn’t.”

Physical and sexual victimization experienced after the respondent was 18 years of age was classified as adult abuse. Being physically abused or attacked as an adult was determined by a positive response to item 1 or 2 for physical abuse above, or endorsement of either of the following traumas: “Were you ever physically abused or hurt by a spouse or girlfriend (or boyfriend)?” or “Were you ever robbed, mugged or physically attacked?” Adult sexual victimization was defined using the same two items as childhood sexual abuse. These childhood and adult abuse variables were originally created for an analysis of the effect of childhood abuse on subsequent alcohol and drug disorders (Libby et al., 2004).

Family-of-origin problems—A set of questions asked about problems that family members had while the respondent was growing up (less than 18 years of age). These questions were used to assess whether either parent had a problem with violent behavior (father/mother violence problem) while the respondent was growing up. Natural parent, step-parent, and other parent substitute were each included. Childhood financial strain was determined by the respondent affirming that their family ever had “a hard time making ends meet.”

Lifetime disorders—Psychiatric disorders were assessed using items from the University of Michigan version of the Composite International Diagnostic Interview (UM-CIDI) (WHO, 1990), which had been adapted for use in American Indian communities as a part of a previous study (Beals, Novins, Mitchell, Shore, & Manson, 2002). DSM-IV (American Psychiatric Association, 1994) criteria were used to create lifetime diagnoses of depression and substance use disorder (abuse or dependence). Substances included alcohol, marijuana, sedatives (including tranquilizers), stimulants, analgesics, inhalants, cocaine, hallucinogens (including peyote), and heroin. These diagnoses were created by a team of analysts and have been used in studies of the AI-SUPERPFP sample (Beals et al., 2003; Mitchell, Beals, Novins, Spicer, & T, 2003; Spicer et al., 2003).

Social support indices—Social support was assessed using three separate indices: perceived, instrumental, and negative social support (Kessler et al., 1994; Kulka et al., 1988; National Center for Post-Traumatic Stress Disorder and the National Center for American Indian and Alaska Native Mental Health Research, 1996). These three indices, described below, were used independently in all analyses (intercorrelations all less than .5).

The perceived social support index was calculated for each respondent as the mean of their responses to the following questions: (1) “How much do your friends or relatives really care about you”; (2) “How much do they understand they way you feel about things”; (3) “How much do they appreciate you”; (4) “How much can you rely on them for help if you have a serious problem”; (5) “How much can you talk to them about your worries”; and (6) “How

much can you relax and be yourself around them?" The perceived social support index ranged from 1 (low support) to 3 (high support) with a Cronbach's alpha of .87.

The instrumental social support index assessed tangible support and was calculated as the mean of the following items: "Among the people you know, is there someone: (1) you can go with to play cards, or go to bingo, a powwow, or a community meeting"; (2) "Who would lend you money in an emergency"; (3) "Who would lend you a car or drive you somewhere if you really needed it"; (4) "Who could you call who would bail you out if you were arrested and put in jail"; and (5) "Who could you count on to check in on you regularly?" The response to each of the individual items was yes (1) or no (0), so the index ranged from 0 (have no support) to 1 (have support). Cronbach's alpha for this index was .78.

The negative social support index was created as the mean of the following items: (1) "How often do your friends or relatives make too many demands on you"; (2) "How often do they argue with you"; (3) "How often do they criticize you"; (4) "How often do they let you down when you are counting on them"; (5) "How often do they get on your nerves"; and (6) "How often do they drink or use drugs too much?" Index scores ranged from 0 (no support) to 2 (high support). Cronbach's alpha for this index was .77.

Demographic variables—The respondent's age (log transformed) and poverty status at the time of the interview were included as control variables in all models. Poverty status was a dichotomous variable with non-poor as the referent group. A status of "poor" was defined by being below the US 100% level of poverty. Gender and the number of children were also used as control variables.

Parenting outcomes—The first outcome variable was a Parenting Satisfaction Index created for this study using the following five questions asked of all parents: (1) "Compared to most families in your community, how many problems have your children given you"; (2) "Would you say that, in your case, being a parent has nearly always been enjoyable, sometimes been enjoyable, or hardly ever been enjoyable"; (3) "Many [men/women] feel they're not as good [fathers/mothers] as they would like to be—have you ever felt this way"; (4) "How satisfied or pleased are you with how you get along with your children"; and (5) "How satisfied/pleased are you as a parent with how your children are turning out?" Responses for each of these items ranged from 0 (not at all/none) to 2 (a lot). The first and third items were reverse coded so that a higher response indicated higher parenting satisfaction. Confirmatory factor analysis (Bentler, 2002) was done for these items and indicated that a single factor index including all five items fit the data well (Goodness-of-Fit $\chi^2 = 31.6$, $p < .001$, Comparative Fit Index = .98). A mean summary score was created by calculating the mean of the above five items for each respondent. This mean summary score ranged from 0 (low parenting satisfaction) to 2 (high parenting satisfaction). The Cronbach's alpha for this index was .64.

The second parenting outcome variable, parenting role impairment, was obtained directly from a single item: "Since turning 15, was there ever a time when you were an irresponsible parent—that is, you did not provide for the basic needs and care of your children when you

were able to?" Those who answered yes to this question were considered to have parenting role impairment.

Analyses

Variable construction was completed using the SPSS (Norusis, 1999) and SAS statistical packages (SAS Institute Inc, 2000). All descriptive and inferential analyses were conducted in STATA (Stata, 2001) using sample and non-response weights to account for the complex sample design (Kish, 1965). All analyses were stratified by tribe because the Northern Plains and Southwest tribes are distinct populations.

Bivariate Pearson correlations between each of the independent variables were examined in order to identify highly correlated pairs of variables prior to modeling. No pairs of variables had a correlation above .40, so multicollinearity was not of concern. Linear regression models were used to predict the continuous Parenting Satisfaction Index score outcome; logistic regression models were used to predict the dichotomous Parenting Role Impairment outcome.

Four multivariate models were constructed, one for each of the two parenting outcomes for each of the two tribes. Childhood physical abuse, childhood sexual abuse, and the four demographic variables were included in each multivariate model. Final models were obtained by adding covariates in a forward purposeful selection process (Hosmer & Lemeshow, 1989). Gender was tested for interactions with other independent variables and did not demand stratification; therefore, gender entered the model as a fixed effect.

After examination of both bivariate and multivariate regression and bivariate correlation results, steps were taken to test whether lifetime depression or lifetime substance use disorder mediated the relationships between childhood physical or sexual abuse and the parenting outcomes. The criteria as outlined in the classical mediator reference (Baron & Kenny, 1986) were followed by taking the following steps for each of the four final multivariate regression models (Eckenrode, Rowe, Laird, & Brathwaite, 1995). First, a model was run with the parenting outcome of interest as the dependent variable and childhood physical and sexual abuse as the main effects, controlling for the other covariates in the final model and excluding lifetime depression and/or substance use disorder from the model. Second, a logistic regression model was run with lifetime depression or lifetime substance use disorder as the dependent variable and childhood physical and sexual abuse as the main effects, while controlling for the other covariates in the final model. Third, the final multivariate model with childhood physical and sexual abuse and lifetime depression and/or lifetime substance use disorder included was examined, and the relationships between childhood physical and sexual abuse and the parenting outcome were compared to the relationships as in the previous model with the possible mediator excluded.

In order for lifetime depression and/or substance use disorder to be a confirmed mediator, three conditions based on the steps just described must have been met. First, the relationship between childhood physical or sexual abuse and the parenting outcome of interest was statistically significant while controlling for the other covariates, but without the possible mediator in the model; second, the relationship between childhood physical or sexual abuse

and the possible mediator was statistically significant while controlling for the other covariates in the final model; and third, in the final model the relationship between the possible mediator and the parenting outcome was statistically significant and the relationship between childhood physical or sexual abuse and the parenting outcome decreased in magnitude, while staying statistically significant (partial mediation) or becoming non-significant (full mediation), compared to when the possible mediator was excluded from the model.

Results

Descriptive statistics

Table 1 describes characteristics of the respondents. Childhood sexual abuse was more prevalent for mothers than for fathers in both tribes. Childhood physical abuse was more prevalent that childhood sexual abuse. Having a father with a violence problem while growing up was reported by approximately 12% of respondents in each tribe. Having a mother with a violence problem was less common, reported by fewer than 5% of each tribe. One-third of the Southwest respondents and nearly one-half of the Northern Plains respondents indicated they grew up with financial strain. Lifetime alcohol and drug use disorders were nearly three times more prevalent for males than for females among the Southwest tribe. Gender differences were less marked in the Northern Plains tribe. In general, mean social support scores were lower among fathers than mothers. For the parenting satisfaction outcome, mean scores were approximately 1.70 (on a scale of 1–3) for males and females in each tribe. The percentage of parents reporting parenting role impairment in the Northern Plains tribe was twice that reported by respondents in the Southwest tribe.

Bivariate models

As shown by the bivariate linear model results (Table 2), childhood physical abuse significantly decreased parenting satisfaction for each tribe. However, childhood sexual abuse had the same effect only in the Southwest tribe. Having a father with a violence problem while growing up significantly decreased parenting satisfaction in both tribes; having a mother with a violence problem while growing up significantly decreased parenting satisfaction only in the Southwest tribe. Instrumental and perceived social support significantly increased parenting satisfaction, while negative social support significantly decreased parenting satisfaction.

Also reported in Table 2 are the bivariate logistic regression results for parenting role impairment. Having a violent father or mother while growing up significantly increased the likelihood of parenting role impairment in both tribes. Social support had significant associations with parenting role impairment and parenting satisfaction. Instrumental social support significantly decreased the likelihood of role impairment only in the Southwest tribe, while perceived social support significantly decreased the likelihood of parenting role impairment in both tribes.

Multivariate models—Parenting Satisfaction Index

Multivariate linear regression models were run with the Parenting Satisfaction Index as the outcome, that is, dependent variable (Table 3). In the Southwest, lifetime depression significantly decreased parenting satisfaction. Having a father with a violence problem, being attacked as an adult, negative social support, and age also significantly decreased parenting satisfaction; in contrast, perceived and instrumental social support significantly increased parenting satisfaction. Neither childhood sexual nor physical abuse had a statistically significant effect.

For the Northern Plains, neither childhood physical or sexual abuse was associated with parenting satisfaction after adjusting for other variables in the final model. Parents who had a lifetime diagnosis of depression or a lifetime diagnosis of a substance use disorder reported significantly less parenting satisfaction, as did parents who were victimized as an adult, older, female, lived in poverty, and had more children. Instrumental and perceived social support had significant positive relationships with parenting satisfaction; negative social support had a significant negative relationship with parenting satisfaction.

Lifetime substance use disorder fully mediated the relationship between childhood physical abuse and parenting satisfaction in the Northern Plains, but not in the Southwest. When lifetime substance use disorder was excluded from the model (results not shown), childhood physical abuse had a statistically significant effect on parenting satisfaction ($\beta = -.09$, $p < .05$).

Multivariate models—parenting role impairment

Multivariate logistic regression models were run with parenting role impairment as the outcome (dependent variable) (Table 4). In the Southwest, childhood sexual abuse significantly increased the likelihood of parenting role impairment. Having a mother with violence problems, negative social support, poverty, and having more children also significantly increased the likelihood of parenting role impairment. In the Northern Plains, childhood financial strain, negative social support, and having more children significantly increased the likelihood of parenting role impairment.

Lifetime substance use disorder was found to be a mediator of the relationship between childhood abuse and parenting role impairment in both tribes. These mediation results are illustrated in Figure 1. In the Southwest tribe, lifetime substance use disorder mediated the relationship between childhood sexual abuse and parenting role impairment. That is, when lifetime substance use disorder was excluded from the model, the effect of childhood sexual abuse was larger with a smaller *p*-value than when substance use disorder was included in the model. In the Northern Plains, lifetime substance use disorder mediated the relationship between childhood physical abuse and parenting role impairment. The odds ratios for childhood abuse are still clinically significant, but the magnitude and statistical significance are reduced when parental substance abuse disorders were included.

Discussion

This study found support only for substance use disorder, not depression, as a mediator of the relationship between childhood abuse and parenting outcomes. This result is in contrast to recent literature on the effect of childhood trauma on parenting outcomes in which depression mediated the relationship between childhood trauma and parenting outcomes (Banyard et al., 2003). Lifetime substance use disorder operated as a full mediator between childhood physical abuse and both parenting satisfaction and role impairment in the Northern Plains tribe. In the Southwest tribe, there was evidence only of partial mediation by substance use disorder on the relationship between childhood sexual abuse and role impairment. This differential effect may be driven by the high prevalence of alcohol problems, which is an obvious focus for intervention.

Social support played strong roles in the relationships with parenting outcomes. Negative social support had dampening effects on both parenting outcomes, whereas positive social support—both perceived and instrumental—only was significant in parenting satisfaction in both tribes. Because of the consistency of the effects across tribes, there did not appear to be a cultural difference, but rather a difference in which types of support were important for which outcomes (e.g., attitudinal vs. behavioral parenting outcomes).

The significant bivariate relationships between childhood abuse and parenting outcomes were considerably reduced by including familial experiences, health problems, and social support. There were empirical effects from the parents' own childhood experiences, both personal and financial, as well as adult experiences of trauma and poverty. This finding supports a multidimensional approach to understanding adult outcomes of childhood trauma, and supports the "multiple adversity" notion that omitting key factors that describe the family and the parent may distort the effect of childhood abuse on outcomes.

We expected to find strong differences between fathers and mothers in the relationships between trauma and parenting satisfaction or impairment. In part, this expectation was due to the disproportionate experience of victimization (especially childhood sexual abuse by females), and in part due to the nature of maternal and paternal roles. Indeed, no differences were found that would have justified such a stratification approach, although females had slightly lower mean parenting satisfaction scores in both tribes.

Other adversities were reported that might make parenting difficult in terms of model behaviors and experiences according to either an intergenerational or ecological framework. About 10% of males and females in both tribes reported growing up with fathers who had violence problems, and about 25% experienced physical victimization as an adult.

Tribal differences in the effects of childhood abuse on parenting outcomes imply that cultural differences exist, as the two tribal communities were chosen for comparison across socio-cultural dimensions; unfortunately, the study that provided these data was not designed to explain the source or nature of these differences. A popular theory states that tribes with more informal social organization (e.g., the Northern Plains) will evidence higher levels of social problems than societies like those of the Southwest, which show higher degrees of social integration and control (Levy & Kunitz, 1974). One could predict,

therefore, that there would be higher levels of “social ills” such as childhood abuse in the Northern Plains compared to the Southwest. This prediction is only partially consistent with our data. Rates of childhood physical abuse were higher for the Northern Plains tribe (8.9%) than the Southwest tribe (7.6%). The opposite appeared to be the case for childhood sexual abuse, which was more prevalent in the Southwest (5.6%) than in the Northern Plains (4.7%). Another difference between the tribes was the prevalence of substance use disorder, double in Northern Plains females (31.5%) than Southwest females (14.1%).

Although American Indian peoples are often considered a homogeneous group (Trimble, 1988) and share many characteristics across tribes, our findings underscore the fact that important differences exist. For example, since long-term poverty and substance use disorders are more common in the Northern Plains than in the Southwest (Mitchell et al., 2003; Spicer et al., 2003), it is not surprising that these stresses are of special consequence in understanding parenting satisfaction in the Northern Plains. Because these analyses refer to a community-based sample of American Indian men and women from two specific tribal populations, the results cannot be generalized to other Native communities or to American Indians in urban settings.

Methodological strengths and limitations of this study deserve mention. Our study included potentially important covariates such as education, age, number of children, current depressive symptoms, experiences of childhood physical abuse or neglect, and negative family relationships. Also, this study used standardized diagnostic interviews that allowed the inclusion of these disorder-specific variables in multivariate models of parenting outcomes. This study is limited in that, like many other studies on the long-term sequelae of child abuse, neither childhood abuse nor parenting outcomes were the focus of the research study that provided the data source. Rather, the objective was to measure psychiatric disorders and associated psychosocial influence in two culturally different tribal populations. Standardized measures were not used for maltreatment and the parenting outcome measures were first-person accounts that were not co-measured with more objective criteria. However, the breadth of information on the individual respondents and their families, both in childhood and adulthood, is a strength that allowed the testing of more complex relationships between trauma, psychiatric disorders, and the outcomes.

In summary, the current study addressed gaps in existing literature regarding parenting outcomes and included the first model of such relationships in American Indian populations. Findings suggested potential variables that could be the targets of interventions: concrete social support, attention to both fathers and mothers in their parenting roles, and substance use disorders. While it is best to prevent childhood traumas, it is also important to understand the risk and protective factors that affect outcomes later in life.

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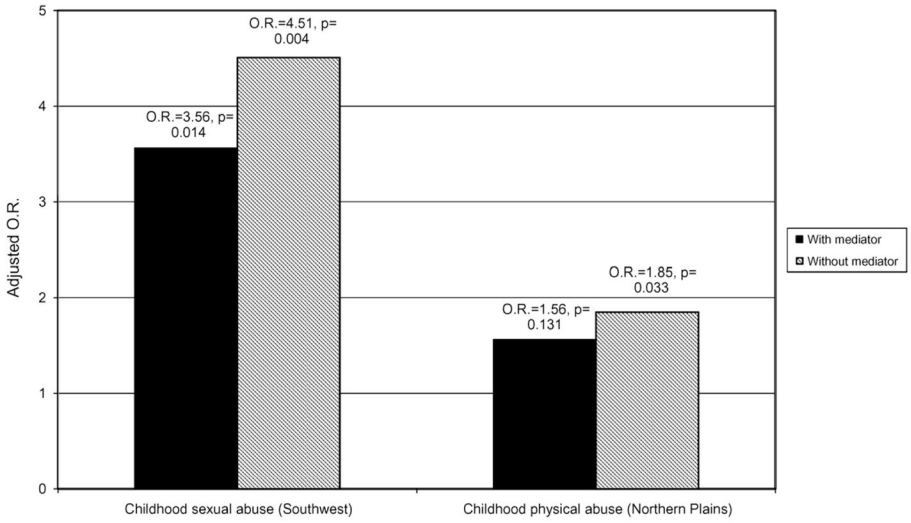

Figure 1.

Effects of childhood abuse on parenting role impairment mediated by lifetime substance abuse/dependence.

Table 1

Descriptive characteristics (reported as %) of parents

	Southwest			Northern Plains		
	Male (*n* = 390)	**Female (*n* = 659)**	**Total (*n* = 1049)**	**Male (*n* = 505)**	**Female (*n* = 667)**	**Total (*n* = 1172)**
Covariates						
Childhood physical abuse	7.30	7.77	7.60	7.02	10.44	8.93
Childhood sexual abuse	1.51	8.02	5.57	.82	7.76	4.70
Father violence problem while growing up	9.76	13.53	12.12	10.78	13.53	12.31
Mother violence problem while growing up	3.01	3.14	3.09	2.52	6.70	4.85
Childhood financial strain	31.11	33.74	32.76	40.43	46.26	43.66
Adult victim of physical abuse/attack	13.07	28.53	22.73	21.04	32.50	27.46
Adult victim of sexual abuse	.29	3.08	2.03	.00	6.10	3.41
Lifetime substance use disorder	45.28	14.11	25.82	47.41	31.50	38.55
Lifetime depression	8.19	12.57	10.92	7.62	10.08	8.99
Instrumental social support (mean)	.77	.84	.81	.92	.92	.92
Perceived social support (mean)	2.24	2.42	2.35	2.49	2.55	2.53
Negative social support (mean)	.49	.52	.51	.61	.68	.65
Age at interview (mean)	38.55	36.91	37.53	37.52	35.88	36.61
Poverty	39.49	47.08	44.23	58.43	63.47	61.23
Number of children (mean)	3.23	3.24	3.24	3.26	3.33	3.30
Outcome variables						
Parenting satisfaction (mean score)	1.70	1.66	1.68	1.70	1.65	1.67
Parenting role impairment	11.58	5.98	8.09	17.18	16.73	16.93

Child Abuse Negl. Author manuscript; available in PMC 2015 August 10.

Table 2

Bivariate regression models for parenting outcomes[a]

	Parenting satisfaction				Parenting role impairment			
	Southwest		Northern Plains		Southwest		Northern Plains	
	β	(*SE*)	*β*	(*SE*)	OR	(95% CI)	OR	(95% CI)
Childhood physical abuse	−.17	(.04)**	−16	(.04)**	2.07	(1.00, 4.28)	2.71	(1.69, 4.35)**
Childhood sexual abuse	−.17	(.06)**	−.07	(.05)	3.48	(1.64, 7.35)**	1.99	(1.00, 3.96)
Father violence problem	−.15	(.04)**	−.01	(.03)	1.96	(1.07, 3.60)*	1.61	(1.02, 2.46)*
Mother violence problem	−.16	(.08)*	−.19	(.06)**	5.28	(2.31, 12.07)**	2.08	(1.08, 4.03)*
Childhood financial strain	−.05	(.02)*	−.12	(.02)**	1.77	(1.10, 2.84)*	2.32	(1.65, 3.27)**
Adult victim of physical abuse/attack	−.12	(.03)**	−.15	(.03)**	1.64	(.97, 2.76)	2.09	(1.47, 2.96)**
Adult victim of sexual abuse	−.09	(.08)	−.29	(.10)**	1.48	(.33, 6.63)	2.10	(.97, 4.56)
Lifetime substance use disorder	−.08	(.03)**	−.11	(.02)**	4.21	(2.61, 6.78)**	3.77	(2.68, 5.31)**
Lifetime depression	−.22	(.04)**	−.22	(.04)**	2.92	(1.65, 5.17)**	2.23	(1.37, 3.64)**
Instrumental social support	.21	(.04)**	.28	(.06)**	.38	(.19, .76)**	.59	(.28, 1.25)
Perceived social support	.14	(.02)**	.19	(.02)**	.48	(.32, .72)**	.67	(.48, .93)*
Negative social support	−.20	(.03)**	−.22	(.03)**	2.84	(1.69, 4.78)**	2.46	(1.72, 3.51)**
Female	−.04	(.02)	−.05	(.02)*	.49	(.30, .78)**	.97	(.69, 1.35)
Age at interview	−.13	(.04)**	−.23	(.03)**	1.44	(.63, 3.32)	1.54	(.91, 2.62)
Poverty	−.05	(.02)*	−.08	(.02)**	2.60	(1.60, 4.24)**	1.13	(.79, 1.60)
Number of children	−.02	(.01)**	−.03	(.01)**	1.30	(1.16, 1.45)**	1.17	(1.09, 1.26)**

[a] *SE*: standard error; OR: odds ratio; CI: confidence interval.

* $p < .05$.

** $p < .01$.

Table 3

Multivariate linear regression models of childhood abuse on parenting satisfaction

	Southwest		Northern Plains	
	β	**(*SE*)**	***β***	**(*SE*)**
Childhood physical abuse	−.06	(.04)	−.08	(.05)
Childhood sexual abuse	−.04	(.06)	.08	(.05)
Lifetime alcohol/drug disorder	–		−.06	(.02)*
Lifetime depression	−.14	(.04)**	−.11	(.04)**
Father violence problem	−.09	(.04)*	–	
Adult victim of physical abuse/attack	−.06	(.03)*	−.06	(.03)*
Instrumental social support	.17	(.05)**	.13	(.06)*
Perceived social support	.07	(.02)**	.10	(.03)**
Negative social support	−.14	(.03)**	−.13	(.03)**
Age at interview	−.09	(.04)*	−.18	(.04)**
Female	−.04	(.02)	−.06	(.02)**
Poverty	−.03	(.02)	−.05	(.02)*
Number of children	−.01	(.01)	−.01	(.01)*
N	902		1031	

SE: standard error.

* $p < .05$.

** $p < .01$.

Table 4

Multivariate logistic regression models of childhood abuse on parenting role impairment

	Southwest		Northern Plains	
	OR	**(95% CI)**	**OR**	**(95% CI)**
Childhood physical abuse	1.14	(.44, 2.99)	1.56	(.88, 2.79)
Childhood sexual abuse	3.56	(1.29, 9.77)*	.94	(.44, 2.00)
Lifetime alcohol/drug disorder	3.14	(1.73, 5.68)**	3.18	(2.15, 4.70)
Mother violence problem	3.17	(1.04, 9.63)*	–	
Childhood financial strain	–		1.67	(1.13, 2.46)*
Negative social support	1.93	(1.04, 3.59)*	1.76	(1.18, 2.62)**
Age at interview	1.11	(.32, 3.90)	.69	(.34, 1.44)
Female	.57	(.31, 1.05)	.99	(.67, 1.47)
Poverty	2.25	(1.29, 3.93)**	.95	(.65, 1.39)
Number of children	1.26	(1.09, 1.46)**	1.17	(1.07, 1.29)**
N	906		1024	

OR: odds ratio; CI: confidence interval.

* $p < .05$.

** $p < .01$.