#### ORIGINAL PAPER

# Mental Health and Substance Abuse Services to Parents of Children Involved with Child Welfare: A Study of Racial and Ethnic Differences for American Indian Parents

Anne M. Libby · Heather D. Orton · Richard P. Barth · Mary Bruce Webb · Barbara J. Burns · Patricia A. Wood · Paul Spicer

Published online: 26 October 2006 © Springer Science+Business Media, LLC 2006

**Abstract** American Indian (AI) parents of children involved with child welfare were compared to White, Black and Hispanic parents on mental health and substance abuse problems and access to treatment. Data came from the National Study of Child and Adolescent Well-Being, a longitudinal study of a nationally representative sample of children aged 0–14 years involved with child welfare. Weighted statistics provided population estimates, and multivariate logistic regression was used to predict the likelihood of caregivers receiving mental health or substance abuse services. There were significant disparities in the likelihood of receiving mental health,

A. M. Libby (⊠) · H. D. Orton · P. Spicer University of Colorado at Denver and Health Sciences Center, School of Medicine, Nighthorse Campbell Native Health Building, P.O. Box 6508, Campus Box F800, Aurora, CO 80045, USA e-mail: anne.libby@uchsc.edu

R. P. Barth University of North Carolina, Chapel Hill, NC, USA

M. B. Webb Administration for Children and Families, Washington, DC, USA

B. J. Burns Duke University, Durham, NC, USA

P. A. Wood Child and Adolescent Services Research Center, San Diego, CA, USA

Present Address: R. P. Barth School of Social Work, University of Maryland, Baltimore, MD, USA but not substance abuse, services. Unmet need for mental health and substance abuse treatment characterized all parents in this study. AI parents fared the worst in obtaining mental health treatment. Parents of children at home and of older children were less likely to access mental health or substance abuse treatment.

 $\label{eq:chi} \begin{array}{ll} \textbf{Keywords} & Child \ welfare \ \cdot \ Mental \ health \ \cdot \ Substance \\ abuse \ \cdot \ American \ Indian \ \cdot \ Disparities \ \cdot \ Parents \end{array}$ 

#### Introduction

Mental health and substance use disorders are major public health problems affecting millions of American families each year and generating costs to individuals and society estimated in the billions of dollars (US Department of Health and Human Services, 1999a, b). The Surgeon General's Report on racial and ethnic disparities (US Department of Health and Human Services, 2001) concluded that African-Americans and Hispanics may not be at differential risk compared to Whites for mental disorders after accounting for differences in demographics; this conclusion was based on national studies in which American Indians (AIs) did not comprise a large enough sample for independent estimation (Kessler et al., 1994; Robins & Regier, 1991). Existing evidence suggests the AIs suffer from increased morbidity and mortality compared to the rest of the US (Sue & Chu, 2003; US Department of Health and Human Services & Service, 1997). Studies of AI populations report high rates of mental and addictive disorders, especially alcohol problems and trauma (Beals et al., 2002, 2005; Kinzie et al., 1992; Kunitz, Gabriel, & Levy, 2000; Kunitz et al., 1999; Robin, Chester, Rasmussen, Jaranson, & Goldman, 1997).

Many adults who suffer from these problems are also parents, and studies have demonstrated negative consequences for the children of parents with unmanaged serious mental health and substance abuse problems. Studies revealed poorer developmental outcomes on physical, cognitive, and social dimensions and increased risk for emotional problems and substance use themselves (Semidei, Radel, & Nolan, 2001; US Department of Health and Human Services, 1999a; Walsh, MacMillan, & Jamieson, 2003). One acute consequence could be child abuse or neglect, problems in AI communities that outpace reported rates in the US general populations (Libby et al., 2004a, b). Ensuring child safety is the primary goal of the child welfare system in the US, which also serves as an entryway for services for child and parental mental health or substance abuse problems (US General Accounting Office, 2003). As many as 40-80% of families involved with the child welfare system have had substance abuse problems, although there are no established and comprehensive ways of measuring this nationally (Mannes, 1993; Semidei et al., 2001; US Department of Health and Human Services, 1999a).

The provision of services to AI families involved in the child welfare system is made more complex by the fact that these families are likely to come under the jurisdiction of the Indian Child Welfare Act (ICWA). Passed in 1978 in response to well-documented excesses in the out-of-home placement of AI children (Mannes, 1993), ICWA established tribal authority over custody determinations for AI children. ICWA required states to determine possible tribal affiliation and give notice to the child's parents, custodians, and tribe at the commencement of any of legal proceedings such as adoption. It also established preferences for the placement of AI children in their families or in tribally approved placements (Jones, Gilette, Painte, & Paulson, 2000; Matheson, 1996). Finally, ICWA authorized funding for tribally administered child welfare services and family assistance programs targeted toward preventing the breakup of AI families. Funding has been insufficient to support full implementation; initial funding only met 25% of the need and, even now, leaves many tribes with only one child welfare worker (CWW) (Cross, Earle, & Simmons, 2000). Given problems achieving psychiatric care for parents in the child welfare system more generally (Child Welfare League of America, 2001; US Department of Health and Human Services, 1999a), and persistent problems in the implementation of the ICWA (Cross et al., 2000), there is an urgent need to better understand how AI parents fare when they come into contact with the child welfare system.

This paper draws on a nationally representative sample of children involved in child welfare systems to estimate the extent of mental health and substance abuse problems among caregivers, and to assess disparities in health care by comparing the experiences of AI parents with those who are White, Black and Hispanic. We measure the extent to which assessments and referrals are made, and services received, and reasons for not receiving services when known. Among those parents for whom some need was established, we enumerate the types of mental health and substance abuse services received and use multivariate models to assess relationships between characteristics of the caregiver, the associated child, and receiving services.

#### Methods

### Survey Design

The National Study of Child and Adolescent Well-Being (NSCAW) is a longitudinal study that consists of two cohorts of children ages 0-14 who had contact with the child welfare system. The cohort used in these analyses included 5,501 children who were the subject of an investigation of child abuse or neglect conducted by Child Protective Services between October 1999 and December 2000. These children were followed in order to obtain interviews at baseline and four waves at approximately 12 months (Wave 2), 18 months (Wave 3) and 36 months after the close of the investigation (Wave 4 is nearing completion). At each data collection time point there were four possible respondents for each child-the child, his or her current caregiver, his or her teacher (if school aged), and a CWW or service worker. The analyses presented here are based on information from CWW and current caregiver respondents. The study procedures defined the current caregiver as the caregiver who was "most knowledgeable about the child," with a hierarchy established, preferring the child's mother, in situations where there were multiple caregivers. Waves 1 and 3 were used for the analyses here because Wave 4 was not yet publicly available. Data from Wave 2 were used to replace missing data from Wave 3 when applicable.

NSCAW involved two stages of sampling, first from primary sampling units (PSUs) represented by county child welfare agencies, and second children from lists of closed investigations or assessments within those PSUs, with infants, victims of sexual abuse, and youth receiving ongoing services over-sampled. PSUs were divided into nine strata, one for each of eight key states and a ninth that comprised the remainder of the states. To produce national estimates these nine strata are combined, as in this analysis (Barth et al., 2002; Biemer, Liu, Iannacchione, Bryron, & Cano, 1998). In order to allow for population-based estimates that closely approximate children in the child welfare in the United States, analysis weights were calculated in two steps corresponding to the stages of the sample design. Additional detailed information about the NSCAW study design and weight derivation is published elsewhere (Dowd et al., 2002).

For these analyses, data from the current caregiver and the CWW were used at the baseline and 18 month interviews. Since the unit of analysis here was the current caregiver, only caregivers who were constant between baseline and 18 months (N = 3,425) were included in these analyses. Data were drawn from the 12-month interview to fill in missing 18-month responses if the same caregiver responded to both interviews. Approval for this analysis was obtained by the institution of the primary author (University of Colorado Multiple Institutional Review Board).

## Measures

## Caregiver Characteristics and Risk Factors

At baseline, the CWW was asked to identify via checklist caregiver risk factors that were present at the time of the investigation. They were: serious problems with alcohol or drugs, serious mental health or emotional problems, cognitive impairment, physical impairment, impaired parenting (i.e., poor parenting skills, inappropriate or excessive discipline), monetary problems (i.e., problems paying for basic necessities), and active/current domestic violence. The first two items were also combined into serious alcohol/drug/ mental health/emotional problems (ADM).

The race/ethnicity of the caregiver was categorized as AI, Black/non-Hispanic (Black), White/non-Hispanic (White), Hispanic, and other/unknown, with AI being the referent group. A respondent was categorized as AI if the caregiver endorsed AI as their own race or ethnicity alone or in combination with any other racial or ethnic group. Racial and ethnic groups as defined in this study were mutually exclusive. Caregiver gender was also used in these analyses, with females being the referent group.

# Caregiver Assessments, Referrals and Service Receipt

At 12 and 18 months the CWW was asked questions regarding assessments and referrals made for each caregiver and services received by the caregiver since the last interview. The CWW indicated if a formal assessment was made for a problem with alcohol or drug use and for a mental health or emotional problem. If assessments were made, the results of these assessments were indicated (serious impairment, moderate impairment, little or no impairment, and could not be determined). The CWW also indicated if a referral was made for an ADM. If a referral was made, the CWW indicated whether the caregiver received the services and if so, of what type. If a referral was not made, the CWW indicated reasons why, which included that the parent was already receiving the service. The CWW also indicated reasons why services were not received after a referral.

If a child and his/her family were not receiving any type of child welfare services after baseline, no CWW interview was done for that wave. For these instances, it was assumed that no assessments or referrals were made through the child welfare system and that no services were received for ADM. Because the skip pattern in the interview was conditional on service referral or receipt, the lack of interview was recoded as no service rather than allowing those observations to be recorded as missing values.

# Children Characteristics

The child's placement at baseline was categorized as in-home versus out-of-home, with out-of-home being the referent group. Children residing in an urban PSU were compared to children in a rural PSU. Children's age at baseline was categorized as less than 3 years old, 3–5 years old, 6–10 years old, and 11 years and older, with the oldest group being the reference.

The type of maltreatment that instigated the initial investigation was identified by the CWW using a modified Maltreatment Classification Scale (Manly, Cicchetti, & Barnett, 1994). Categories included physical, sexual, and emotional abuse, failure to provide, failure to supervise, abandonment, moral/legal maltreatment, educational maltreatment, exploitation, and other types of neglect. For these analyses, physical, sexual and emotional abuse were grouped and compared to all other types of maltreatment/neglect.

# Data Analysis

The sample considered for these analyses was composed of children whose associated caregivers were the same at baseline and 18 months (N = 3,425). In order to obtain population-based estimates to describe the sample, weighted descriptive statistics that are nationally representative were obtained using the analysis

153

weights and STATA svy procedures. Weighted percentages and 95% confidence intervals are reported in the tables.

Weighted multivariate logistic regression was used to estimate the effect of baseline caregiver and child characteristics and caregiver risk factors on caregiver service receipt at 18 months, with service receipt for substance use problems and mental health problems modeled separately. Only caregivers from the sample who had a baseline ADM (n = 1,093) were included in these models since service use would be conditional on need. Weighted odds ratios and 95% confidence intervals are reported in Table 1, with significance at both P < .05 and P < .01 indicated.

Caregivers Who Were Not the Same at Each Time Point

The sample used in these analyses (n = 3,425, or 62%)of the sample) was compared to the sample of caregivers who were different subsequent to baseline (n = 2.076) with respect to baseline child and caregiver characteristics. The caregivers who were the same at baseline and 18 months had significantly more female caregivers (P < .01) and significantly more of the caregivers had their children in-home at baseline (P < .01). With respect to baseline risk factors, significantly fewer of these caregivers had a serious problem with substance use (P < .01), a serious mental health or emotional problem (P < .05), parenting impairment (P < .01), and monetary problems (P < .01). Thus the analyses reported here relate to that subset of families with less severe ADM problems who may have a greater chance for retaining custody of their children-a group that may especially benefit from ADM services to maintain the families intact.

# Results

Table 2 presents descriptive statistics for the sample of caregivers who were the same at baseline and Wave 3

Table 1 Predicting service   use at Wave 3 among those with baseline ADM		Mental l received	nealth services	Substance abuse services received							
problems <sup>a</sup>		OR	(95% CI)	OR	(95% CI)						
	Race/ethnicity										
	American Indian	1.00	_	1.00	_						
	White	7.45	(1.72, 32.26)**	.47	(.17, 1.26)						
	Black	3.09	(.76, 12.62)**	.39	(.11, 1.35)						
	Hispanic	10.47	(2.62, 41.76)**	.39	(.09, 1.66)						
	Child's age										
	<3 years	1.33	(.44, 4.04)	1.96	(.76, 5.02)						
	3–5 years	3.64	(1.20, 11.07)*	.41	(.12, 1.35)						
1 o	6–10 years	.90	(.32, 2.49)	.72	(.24, 2.20)						
	11–14 years	1.00	_	1.00							
	Caregiver gender										
	Male	1.00	-	1.00	_						
	Female	1.36	(.30, 6.11)	.90	(.32, 2.53)						
	Child placement at baseline										
	Out-of-home	1.00	-	1.00	_						
	In-home	.61	(.30, 1.24)	.43	(.24, .78)*						
	Urbanicity		. ,								
Sample was caregivers who	Urban	2.24	(1.00, 5.03)	1.93	(.87, 4.27)						
were the same at baseline and	Rural	1.00	_	1.00	_						
problem at baseline	Maltreatment type										
(1002)	Abuse	.74	(.31, 1.76)	.58	(.30, 1.11)						
(n = 1093)	Neglect/other maltreatment	1.00	_	1.00	_						
ADM = mental health/	Caregiver ADM problems at baseline										
emotional and/or substance	Both MH and substance use problem	1.35	(.57, 3.21)	1.01	(.58, 1.74)						
use problem	Substance use problem only	.36	(.19, .68)**	1.00	-						
OR = odds ratio	MH problem only	1.00	_	.09	(.04, .21)**						
Sample sizes are unweighted	Other caregiver risk factors at baseline										
while population estimates	Physical impairment	.64	(.26, 1.60)	.95	(.29, 30.7)						
were calculated using survey	Impaired parenting skills	1.05	(.49, 2.25)	1.92	(.91, 4.03)						
weights to account for	Monetary problems	.92	(.56, 1.51)	1.24	(.75, 2.05)						
sampling and non-response	Domestic violence	.81	(.36, 1.83)	1.29	(.59, 2.80)						
	N	982		970							
**P < .01, *P < .05											

Table 2	Descriptive	statistics at	baseline	by	race/ethnicity <sup>a</sup>
---------	-------------	---------------	----------	----	-----------------------------

	AI		White		Black		Hispanic		Other/unknown		Total	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Child's age												
<3 years	33.9	(17.6, 55.1)	20.0	(17.3, 22.9)	18.2	(14.3, 22.8)	12.0	(8.0, 17.7)	20.2	(11.3, 33.4)	18.9	(16.7, 21.3)
3-5 years	9.9	(4.8, 19.2)	18.8	(16.0, 21.9)	20.3	(15.5, 26.2)	23.4	(13.6, 37.3)	35.9	(19.2, 56.8)	20.0	(17.7, 22.6)
6-10 years	31.3	(16.1, 52.0)	38.5	(34.8, 42.3)	34.4	(28.4, 40.9)	41.1	(27.3, 56.6)	36.6	(18.1, 60.0)	37.5	(34.1, 41.0)
11-14 years	25.0	(13.7, 41.1)	22.8	(19.5, 26.5)	27.1	(22.2, 32.7)	23.4	(15.9, 33.1)	7.4	(1.6, 28.6)	23.6	(21.2, 26.3)
Caregiver gender (female)	90.8	(73.9, 97.2)	91.0	(87.7, 93.4)	95.1	(91.1, 97.3)	95.6	(88.3, 98.4)	98.6	(96.3, 99.5)	93.0	(91.0, 94.5)
Child in-home at baseline	97.6	(94.7, 98.9)	95.3	(93.1, 96.8)	93.8	(91.0, 95.8)	95.7	(87.8, 98.6)	97.2	(90.3, 99.2)	95.1	(93.5, 96.4)
Urban residence	75.6	(52.4, 89.7)	64.1	(48.3, 77.4)	82.4	(63.2, 98.8)	96.4	(89.0, 98.9)	96.0	(89.0, 98.6)	95.4	(62.9, 84.7)
Maltreatment type												
Abuse	41.8	(25.8, 59.7)	47.2	(41.6, 52.8)	34.6	(28.5, 41.3)	59.8	(51.8, 67.2)	56.6	(34.8, 76.1)	46.2	(42.2, 50.3)
Neglect/other maltreatment	58.2	(40.3, 74.3)	52.8	(47.2, 58.5)	65.4	(58.7, 71.6)	40.2	(32.8, 48.2)	43.4	(23.9, 65.2)	53.8	(49.7, 57.8)
Caregiver MH/substa	ince use	problems										
Mental health/ emotional	23.4	(11.5, 42.0)	14.3	(10.8, 18.8)	16.5	(11.6, 22.8)	6.4	(3.5, 11.6)	8.8	(3.5, 20.6)	13.8	(11.0, 17.3)
problem										<i>/-</i> <b>·</b>		/ · >
Substance use	7.5	(3.8, 14.3)	13.2	(10.4, 16.6)	11.3	(8.2, 15.4)	6.1	(2.5, 14.1)	2.5	(0.7, 8.9)	11.0	(9.0, 13.3)
ADM <sup>b</sup>	27.0	(13.9, 45.8)	23.7	(19.1, 29.1)	23.6	(17.8, 30.7)	10.9	(5.5, 20.2)	12.2	(5.0, 26.9)	21.4	(17.7, 25.6)
Other caregiver risk	factors											
Cognitive impairment	19.1	(8.2, 38.5)	6.7	(4.8, 9.3)	7.4	(4.7, 11.5)	1.2	(0.5, 3.0)	0.9	(0.2, 3.8)	6.4	(5.0, 8.1)
Physical impairment	8.3	(3.1, 20.3)	5.5	(3.9, 7.6)	3.8	(2.0, 7.1)	2.8	(1.2, 6.4)	3.3	(0.5, 20.1)	4.7	(3.7, 6.0)
Impaired parenting	29.8	(15.4, 49.8)	29.1	(24.7, 34.0)	37.3	(30.9, 44.3)	20.3	(12.5, 31.3)	10.4	(5.0, 20.3)	29.2	(25.8, 32.8)
SKIIIS Manatami	156	(9, 2, 27, 4)	22.6	(10, 2, 26, 4)	20.0	(15.7, 25.2)	22.7	(140, 272)	10.0	(7, 6, 20, 9)	21.7	(107 250)
problems	15.0	(8.5, 27.4)	22.0	(19.2, 20.4)	20.0	(13.7, 23.2)	23.7	(14.0, 57.2)	16.9	(7.0, 59.8)	21.7	(16.7, 25.0)
Domestic violence	11.1	(5.3, 21.8)	13.7	(10.6, 17.5)	11.1	(7.9, 15.3)	11.6	(7.0, 18.9)	20.3	(8.2, 41.9)	12.8	(10.8, 15.1)
Any risk factor	52.3	(34.2, 69.9)	51.6	(45.7, 57.4)	54.6	(47.0, 62.0)	48.2	(35.1, 61.5)	45.0	(26.7, 65.9)	51.6	(47.1, 56.0)
Mean no. risk factors	1.1	(0.6, 1.6)	1.0	(0.9, 1.1)	1.0	(0.8, 1.2)	0.7	(0.5, 0.9)	0.6	(0.3, 0.9)	0.9	(0.8, 1.0)
Total $N(\%)^{c}$	160	(4.6%)	1752	(51.1%)	952	(25.3%)	476	(16.0%)	85	(3.0%)	3425	(100%)

<sup>a</sup> Sample was caregivers who were the same at baseline and Wave 3 (n = 3425)

<sup>b</sup> ADM = alcohol, drug or mental health/emotional problems

<sup>c</sup> Sample sizes are unweighted while population estimates were calculated using survey weights to account for sampling and non-response bias

(n = 3,425). One-half (51.1%) of the caregivers were White, 4.6% were AI, 16.0% Hispanic, and 25.3% Black. The caregivers were primarily female (93.0%), with only 219 male caregivers in the sample. The proportion of White caregivers living in a rural PSU (35.9%) was the highest among the different race groups, followed by AI caregivers (24.4%). With respect to the caregivers' children who were subjects of the investigation of maltreatment, 95.1% were in-home at the time of the investigation. Fifty-eight percent of AI families had a form of neglect or some other maltreatment type reported, slightly higher than the average.

Overall, 21.4% of these caregivers had ADM at the time of the investigation, as assessed by the CWW. The

average prevalence of mental health and emotional problems was 13.8%; AI caregivers had the highest prevalence of mental health and emotional problems (23.4%), compared to 6.4% of Hispanic and 16.5% of Black caregivers. Substance use problems, however, were indicated less frequently for AI caregivers (7.5%) compared to White (13.2%) and Black (11.3%) caregivers. Hispanic caregivers had the lowest prevalence of substance use problems (6.1%).

Other risk factors assessed for caregivers at the time of the investigation included cognitive and physical impairment, impaired parenting skills, trouble paying for basic necessities, and active domestic violence (DV). Although 51.6% of all caregivers had at least one of these risk factors (including ADM), the average number of risk factors per caregiver was one. The most common of these other risk factors for AI, White and Black caregivers was impaired parenting skills, with prevalences ranging from 29.1% among White caregivers to 37.3% for Black caregivers. Trouble paying for basic necessities was the most common risk factor among Hispanic caregivers (23.7%), and was also fairly common among AI (15.6%), White (22.6%) and Black caregivers (20.0%).

Table 3 presents information about formal assessments, referrals and services received by the caregivers

|--|

	AI		White		Black		Hispanic		Other/unknown		Total	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
MH/emotional prob Formal assessment done	olem a 5.2	t baseline (1.2, 19.6)	18.3	(13.3, 24.8)	17.6	(10.2, 28.6)	30.6	(11.6, 59.7)	26.9	(5.5, 69.8)	18.3	(13.6, 24.2)
Result of formal ass Serious	sessme 28.7	ent (3.0, 83.8)	39.7	(20.9, 62.2)	26.4	(9.4, 55.4)	7.6	(2.0, 24.6)	.0	_	30.7	(18.1, 47.0)
Moderate impairment	70.2	(16.1, 96.7)	35.9	(23.0, 51.3)	40.1	(23.1, 59.9)	56.3	(30.2, 79.3)	13.4	(1.8, 39.5)	39.5	(29.8, 50.1)
Little or no impairment	1.1	(.1, 11.0)	20.6	(10.9, 35.5)	31.9	(16.9, 52.0)	31.5	(9.0, 68.2)	86.6	(43.5, 98.2)	26.7	(17.7, 38.3)
Could not determine	0.	-	3.8	(1.3, 10.6)	1.5	(.4, 6.6)	4.7	(1.1, 17.8)	.0	-	3.1	(1.4, 6.7)
Referred for services Received services	18.5	(4.6, 51.6)	29.7	(17.7, 45.2)	14.7	(8.2, 24.9)	26.3 23.0	(10.6, 51.8)	9.6	(1.9, 37.1) (1.9, 37.1)	23.9	(16.3, 33.6) (12.5, 28.2)
as result of referral	5.2	(.0, 10.2)	23.3	(14.4, 41.0)	10.9	(5.5, 20.5)	25.7	(9.0, 40.2)	2.0	(1.9, 57.1)	17.2	(12.3, 20.2)
Already receiving services	0.4	(.0, 3.3)	1.2	(.4, 3.4)	1.8	(0.3, 10.9)	14.0	(2.8, 47.4)	.0	_	2.2	(.8, 6.1)
Total received services since	3.6	(.8, 15.9)	26.7	(15.6, 41.8)	12.7	(6.6, 23.0)	37.9	(24.1, 53.9)	9.6	(1.9, 37.1)	21.4	(14.6, 30.3)
Total $N(\%)^{\rm b}$	34	(7.6)	382	(54.7)	172	(28.5)	62	(7.2)	11	(2.1)	661	(100.0)
Substance use proba Formal assessment done	<i>lem at</i> 39.6	<i>baseline</i> (16.8, 68.1)	27.4	(19.5, 37.0)	28.3	(20.3, 37.9)	27.0	(17.9, 38.5)	8.4	(1.1, 41.8)	27.8	(21.9, 34.7)
Result of formal ass	sessme	ent (67 563)	30.0	(20, 2, 63, 4)	347	(21.9, 50.1)	27.9	(71 663)	33.0	(2, 0, 80, 2)	36.6	(22 5 53 5)
impairment Moderate	50.8	(19.0, 82.0)	29.3	(17.1, 45.5)	21.1	(12.1, 34.1)	6.2	(7.9, 18.8)	.0	-	26.1	(17.7. 36.8)
impairment Little or no	4.0	(.5, 26.2)	14.5	(7.6, 25.9)	16.3	(9.1, 27.5)	55.7	(15.2, 89.8)	67.0	(10.9, 97.1)	18.6	(10.3, 31.5)
impairment Could not	21.9	(4.0, 65.3)	16.3	(7.3, 32.4)	27.9	(12.8, 50.4)	10.2	(2.6, 32.8)	.0	_	18.7	(10.8, 30.4)
Referred for services	43.8	(19.8, 71.1)	21.6	(16.0, 28.6)	25.6	(18.9, 33.8)	29.1	(19.9, 40.3)	10.2	(1.6, 44.7)	24.0	(19.5, 29.3)
Received services as result of	36.3	(15.8, 63.4)	14.9	(10.8, 20.3)	16.1	(9.6, 25.8)	13.4	(4.7, 32.5)	2.8	(.3, 24.1)	15.8	(12.1, 20.3)
Already receiving	.0	-	.3	(.0, 1.3)	.4	(.1, 1.5)	.5	(.0, 2.5)	.0	_	.3	(.1, .8)
Total received services since	36.3	(15.8, 63.4)	15.2	(10.9, 20.7)	16.6	(10.0, 26.3)	14.0	(5.0, 33.4)	2.8	(.3, 24.1)	16.1	(12.3, 20.8)
Total $N(\%)^{\rm b}$	35	(3.5)	346	(61.6)	231	(24.5)	75	(9.7)	6	(.7)	693	(100.0)

<sup>a</sup> Sample was caregivers who were the same at baseline and Wave 3 (n = 3425) ADM = mental health/emotional and/or substance use problem

<sup>b</sup> Sample sizes are unweighted while population estimates were calculated using survey weights to account for sampling and non-response bias

between baseline and 18 months for caregivers who had an ADM at baseline. Among those with a mental health problem at baseline (n = 661), only 5.2% of the AI caregivers received a formal assessment, below the 18.3% sample average. Nearly all of those were determined to have serious (28.7%) or moderate (70.2%) impairment. Although Black caregivers were less likely to be referred for services than the other groups, AI caregivers were the least likely to receive services. Fifteen percent of Black caregivers were referred for services, and 12.7% actually received services; 18.4% of AI caregivers were referred for services, but only 3.6% received services. The group with the highest prevalence of assessments, referrals and service receipt among those with a baseline mental health problem was Hispanic caregivers, with 30.6% receiving a formal assessment and 37.9% receiving some kind of mental health services.

Among those with a substance use problem at baseline (n = 693), AI caregivers had the highest prevalence of assessments, referrals and services received. Forty percent of AI caregivers with a baseline substance use problem received a formal assessment, with 50.8% determined to be moderately impaired. Nearly twice as many AI caregivers were referred for substance use services compared to White, Black and Hispanic caregivers. Forty-four percent of AI caregivers were referred for services and 36.3% received some kind of substance abuse service. No AI caregivers were reported by the CWW as having already received substance abuse services. Prior access was also not substantial for other racial and ethnic groups.

Reasons were asked as to why a referral was not made (not reported in the table; available from authors); the majority of caregivers were deemed not to need services, and a small number were already receiving services. Of those who were referred for services but did not receive them, most refused the service(s). Only a few were wait-listed to receive the service, were ineligible, or had a scheduling or transportation problem.

Figure 1 presents the types of formal services received. The majority of the caregivers who received mental health or substance abuse services received outpatient treatment (which included methadone maintenance for substance abuse). With respect to mental health services, 82.9% of AI caregivers received outpatient services; no AI caregivers received either inpatient or intensive day treatment. A similar pattern was seen for AI caregivers receiving substance abuse services; 80.6% received outpatient services but none received inpatient services or went through detox. Overall, very few caregivers received inpatient



Fig. 1 Types of services received by race/ethnicity

or intensive day treatment for mental health problems in contrast to those for substance abuse problems. Another small percent of caregivers with substance abuse problems received detox treatment or participated in a 12-step program.

Multivariate logistic regression models were used to predict 18-month receipt of mental health services or substance abuse services for those caregivers who were assumed to need services because they had an ADM problem at baseline (n = 1,093). The samples of caregivers with mental health and substance use problems were combined in order to estimate the effect of having one of these problems versus both on receiving services. Race/ethnicity had a significant effect on the receipt of mental health services. AI caregivers were significantly less likely to receive mental health services than were White (OR 7.45), Black (OR 3.09) and Hispanic (OR 10.47) caregivers (P < .01). Caregivers whose child was pre-school age were nearly four times more like to receive MH services than caregivers with an adolescent child (P < .05). Comorbid problems did not significantly affect a caregiver's chance of receiving MH services compared to having only a MH problem; however, having only a substance use problem significantly decreased the chance that a caregiver received services (OR .36, P < .01).

In the model predicting receipt of substance abuse services, race/ethnicity was not a significant factor in receiving services for the major comparative groups.

Caregivers whose child was in-home at the time of the investigation were almost 60% less likely to receive substance abuse services than those whose child was in an out-of-home placement (P < .01). This finding is consistent with the belief that caregivers whose children are in an out-of-home placement are more likely to receive services in order to get their children placed back in their homes. Comorbid mental health problems did not significantly reduce the likelihood of services compared to having only a substance use problem; however, having only a mental health problem significantly decreased the chance that a caregiver received services (OR .09, P < .01). Other caregiver risk factors were not significantly related to service receipt in either model, nor were gender, urbanicity or maltreatment type. Note that cognitive impairment was not included in either of these models because it was highly correlated with both baseline substance use problems and baseline mental health problems.

## Discussion

This study used a nationally representative sample of children and families involved with the Child Welfare system to compare AI caregivers with White, Black, and Hispanic caregivers in their need for, and receipt of, mental health and substance abuse assessment and treatment. These families were similar on many dimensions of risk for unmet need, although AI families exceeded the national sample on most risk factors. Most AI cases investigated involved infants, took place in urban locales, were associated with something other than serious abuse, and had well over average prevalence of parental mental health or emotional problems.

These data showed racial and ethnic disparities in referral to, and receipt of mental health services. AI parents were less often formally assessed than all other racial groups by orders of magnitude. Although nearly all AI caregivers were assessed as having serious or moderate impairment in mental health and were most often reported by the caseworkers as having a serious mental or emotional problem, less than 20% were referred for mental health services provided or paid by the child welfare agency, and substantially fewer actually received mental health services as a result of the referral. This pattern of unmet need for mental health services was reflected in other racial and ethnic groups, although unequally. Thus we concluded that there are currently immense unmet needs for mental health services among all parents, but especially among AI parents whose children are involved with the child welfare system.

Substance abuse treatment services showed similar unmet need and disparities as mental health services, although with different patterns. AIs fared the best among racial and ethnic groups in formal assessment, referral for, and receipt of substance abuse treatment, by nearly double the percentages of referral and service use of Whites, Blacks and Hispanic caregivers. One hypothesis for this is that these actions reflect the impact of CWW perceptions of AI alcohol problems, which may draw on stereotypes, although no data are available in NSCAW to test this hypothesis. Thus, even though CWWs reported high mental health problems and lower than average substance abuse problems among AI caregivers, the parents were referred to substance abuse treatment far more often than to mental health services. Of course, psychiatric comorbidity is non-trivial among all of the racial and ethnic groups, but it is curious that AI parents were granted far greater access to substance use treatment than to mental health services. Greater access is a relative term, of course, and in this case does not necessarily reflect evidence-based practice; for example, many of the services received were 12-step programs, which may be court ordered or even suggested as a "requirement" to show fitness as a parent rather than approaches that are indicated as evidence-based ways to address parents' substance abuse treatment needs.

The data source here is an unprecedented collection of longitudinal information on families that come into contact with child welfare systems via investigation by Child Protective Services. In regard to the nature of the investigation or the means by which a case worker determines a serious problem is yet a "black box." The assessments of risk are of a clinical nature, and some agencies use more standardized instruments than others; ultimately, the caseworkers synthesize the information and make recommendations for services. One is left to wonder, for example, about the interaction between facing a client with identified cognitive impairment and caseworker perceptions of serious alcohol, drug or mental problems. In addition, caseworkers in this study were randomly selected as part of the agency selection; there is no knowledge or expectation that they receive any special training in cultural sensitivity or in American Indian issues in particular that would change their information or decisions about these cases. Process studies are called for in future work, first as a descriptive tool and second as a platform for practice improvement.

Child welfare agencies serve many children in outof-home care, including non-relative foster and relative kinship care in growing numbers, but they also investigate and serve many times more families for whom the children are never removed from parental custody, i.e., in-home cases. In our multivariate model predicting service receipt, in-home cases were far less likely to receive either mental health or substance abuse services. While understandable insofar as the in-home cases may have less severe situations, this may also indicate that in-home cases are not receiving services that may help them to avoid future risk to the child and out-of-home placement—a pattern that should be explored in the 36-month NSCAW data.

There was some support for the notion that caregivers of young children get more attention and more services because of concern for increased potential of physical, emotional and developmental harm to the child. An impaired parent, especially one with an unmanaged ADM problem, can also be a particularly salient risk for older children and adolescents, increasing their risk for early substance use problems, emotional problems and health-risking sexual behaviors. We interpret this finding as mixed when considering both young and older children.

The complexity of the organization and financing of child welfare agencies surpasses other public service systems, and navigating such systems by families could be a challenge even without the stress of an investigation. Although ICWA acknowledges tribal authority over child welfare services to AI families, these families face, in fact, both tribal and county child welfare agencies enmeshed in a complex and inconsistent web of funding that requires tribes to coordinate and share considerable authority with states (Cross et al., 2000). Child welfare funding issues, combined with jurisdictional issues, geographic isolation, and limited resources may be significant barriers to child welfare personnel who are charged with delivering or arranging services to AI families in need. Moreover, over half of AIs in the US live outside of reservations, exacerbating the difficulties in targeting and coordinating culturally sensitive services to these families. In this national sample, only 2% of CWW reported that AI children's services were eligible for coverage by ICWA-a figure that certainly strains credibility if those rules were fully implemented-and raises serious questions about the extent to which AI parents are receiving all available services. Education for nontribal providers, technical assistance to tribes in identifying, accessing and utilizing available funding streams, and facilitation of meaningful partnerships with states all will be necessary for developing more coherent and effective service systems. Our findings suggest that, absent these kinds of efforts, the substance abuse treatment needs of AI parents may continue to receive inordinate attention while their mental health needs are neglected. Concerning in itself, this disparity may also have important implications for the development of the children of these caregivers, which should be explored in greater detail in additional analyses of the broader NSCAW dataset.

Future research is needed to deepen the inquiry into nationally representative findings reported herein. Critical next areas of inquiry include the mechanisms by which child welfare caseworkers determine needs for services; the extent of their involvement, if any, in increasing access and compliance; and how that information is used in the context of reunification decisions and determinations of risk to child safety. Effort focused on improving services for these families is likely to advance science and practice, with indirect benefits as noble as the reducing the intergenerational transmission of substance use and child maltreatment.

Acknowledgements This work was partially supported by a Scholars Award from the William T. Grant Foundation (PI, Libby), a grant from the Substance Abuse Policy Research Program of the Robert Wood Johnson Foundation (47400; PI, Spicer), and NIMH grant MH59672 (Caring for Children in Child Welfare, PI, John Landsverk). We gratefully acknowledge staff and participants of the National Data Archive on Child Abuse and Neglect 2004 Special Research Meeting, especially Kathryn Dowd. This document draws on data from the National Survey on Child and Adolescent Well-Being (NSCAW), developed under contract with the Administration for Children and Families, US Department of Health and Human Services (ACF/DHHS). The information and opinions expressed herein reflect solely the position of the authors, and should not be construed to indicate the support of or endorsement by ACF/ DHHS.

### References

- Barth, R., Biemer, P., Runyan, D., Webb, M., Berrick, J., Dowd, K., et al (2002). Methodological lessons from the national survey of child and adolescent well-being: The first three years of the USA's first national probability study of children and families investigated for abuse and neglect. *Children and Youth Services Review*, 24(6–7), 513–541.
- Beals, J., Manson, S. M., Shore, J. H., Friedman, M., Ashcraft, M. J. F., et al (2002). The prevalence of posttraumatic stress disorder among American Indian Vietnam veterans: Disparities and context. *Journal of Traumatic Stress*, 15(2), 89– 97.
- Beals, J., Manson, S. M., Whitesell, N. R., Spicer, P., Novins, D. K., Mitchell, C. M., et al (2005). Prevalence of dsm-iv disorders and attendant help-seeking in two American Indian reservation populations. *Archives of General Psychiatry*, 62, 99–108.
- Biemer, P., Liu, J., Iannacchione, I., Bryron, M., & Cano, G. (1998). National survey of child and adolescent well-being: First stage sampling report (No. RTI Project 7049). Research Triangle Park, NC: Research Triangle Institute.
- Child Welfare League of America. (2001). Alcohol, other drugs, and child welfare. Washington, DC.

- Cross, T. A., Earle, K. A., & Simmons, D. (2000). Child abuse and neglect in Indian country: Policy issues. *Families in Society*, 81(1), 49–59.
- Dowd, K., Kinsey, S., Wheeless, S., Thissen, R. J., Mierzwa, F., & Biemer, P. (2002). National survey of child and adolescent well-being (NSCAW)—wave 1 data file user's manual. Durham, NC: Research Triangle Institute.
- Jones, B., Gilette, J., Painte, D., & Paulson, S. (2000). Indian child welfare act: A pilot study of compliance in North Dakota. Portland, OR.
- Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., et al (1994). Lifetime and 12month prevalence of dsm-iii-r psychiatric disorders in the United States: Results from the national comorbidity survey. Archives of General Psychiatry, 51, 8–19.
- Kinzie, J. D., Leung, P. K., Boehnlein, J., Matsunaga, D., Johnston, R., Manson, S. M., et al (1992). Psychiatry epidemiology of an Indian village: A 19-year replication study. *Journal of Nervous and Mental Disease*, 180(1), 33–39.
- Kunitz, S. J., Gabriel, K. R., & Levy, J. E. (2000). Alcohol dependence: Definitions, prevalence, and risk factors. New York: Oxford University Press.
- Kunitz, S. J., Gabriel, K. R., Levy, J. E., Henderson, E., Lampert, K., McCloskey, J., et al (1999). Risk factors for conduct disorder among Navajo Indian men and women. *Social Psychiatry and Psychiatric Epidemiology*, 34(4), 180–189.
- Libby, A. M., Orton, H. D., Novins, D. K., Beals, J., Manson, S. M., & AI-SUPERPFP Team. (2004a). Childhood physical and sexual abuse and subsequent depressive and anxiety disorders for two American Indian tribes. *Psychological medicine*, 34, 1–12.
- Libby, A. M., Orton, H. D., Novins, D. K., Spicer, P., Buchwald, D., Beals, J., et al (2004b). Childhood physical and sexual abuse and subsequent alcohol and drug use disorders in two American-Indian tribes. *Journal of Studies on Alcohol*, 65, 74–83.
- Manly, J. T., Cicchetti, D., & Barnett, D. (1994). The impact of subtype, frequency, chronicity, and severity of child maltreatment on social competence and behavior problems. *Development and Psychopathology*, 6, 121–143.

- Mannes, M. (1993). Seeking the balance between child protection and family preservation in Indian child welfare. *Child Welfare League of America*, 72(2), 141–152.
- Matheson, L. (1996). The politics of the Indian child welfare act. *Social Work, 41, 232–235.*
- Robin, R. W., Chester, B., Rasmussen, J. K., Jaranson, J. M., & Goldman, D. (1997). Prevalence and characteristics of trauma and posttraumatic stress disorder in a southwestern American Indian community. *American Journal of Psychaitry*, 154(11), 1582–1588.
- Robins, L., & Regier, D. (1991). Psychiatric disorders in America: The epidemiologic catchment area study. New York, NY: MacMillan.
- Semidei, J., Radel, L. F., & Nolan, C. (2001). Substance abuse and child welfare: Clear linkages and promising responses. *Child Welfare*, LXXX(2), 109–128.
- Sue, S., & Chu, J. Y. (2003). The mental health of ethnic minority groups: Challenges posed by the supplement to the surgeon general's report on mental health. *Culture, Medicine and Psychiatry*, 27(4), 447–465.
- US Department of Health and Human Services. (1999a). Blending perspectives and building common ground: A report to congress on substance abuse and child protection.
- US Department of Health and Human Services. (1999b). *Mental health: A report of the surgeon general*. Rockville, MD: US Department of Health and Human Services.
- US Department of Health and Human Services. (2001). *Mental health: Culture, race, and ethnicity*. Rockville, MD: Public Health Service, Office of the Surgeon General.
- US Department of Health and Human Services, & Service, I. H. (1997). *Regional differences in Indian health*. Washington, DC: US Government Printing Office.
- US General Accounting Office. (2003). *Children placed to obtain mental health services (No. GAO-03-397)*. Washington, DC: US General Accounting Office.
- Walsh, C., MacMillan, H. L., & Jamieson, E. (2003). The relationship between parental substance abuse and child maltreatment: Findings from the Ontario health supplement. *Child Abuse and Neglect*, 27, 1409–1425.