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Health service access across racial/ethnic groups of children in the child welfare system[☆]

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Abstract

Objective—This study examined health service access among children of different racial/ethnic groups in the child welfare system in an attempt to identify and explain disparities.

Methods—Data were from the National Survey of Child and Adolescent Well-Being (NSCAW). *N* for descriptive statistics = 2,505. *N* for multiple regression model = 537. Measures reflected child health services need, access, and enabling factors. Chi-square and *t* tests were used to compare across racial/ethnic groups. A logistic regression model further explored the greatest disparity identified, that between non-Latino/a Black and White children in caseworker-reported access to counseling.

Results—In general, caseworker reports of health care service receipt did not differ across racial/ethnic groups. However, Latino/a children had better reported access to vision services than non-Latino/a White children, and counseling access was lower for non-Latino/a Black children than non-Latino/a White children. Caseworkers' self-reported efforts to facilitate service access did not vary by race/ethnicity for any type of health care. In the multiple regression model, both private health insurance and a lack of insurance were negatively associated with counseling access, while a history of sexual abuse, adolescence, and greater caseworker effort to secure services were positively associated with access. Race was just barely nonsignificant after controlling for other factors expected to affect access.

Conclusions—One possible reason why Black children are less likely to be identified as needing counseling is the fact that they are less likely than White children to have reports of sexual abuse, which strongly predicts counseling access.

Practice implications—First, child welfare practice may be more equitable than many believe, with generally comparable health service access reported across children's racial/ethnic groups. Second, caseworkers may be under-identifying need for counseling services among Black children, although this might reflect less frequent reports of sexual abuse for Black children. Third, both

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privately insured and uninsured children were less likely to receive needed mental health counseling than those with public insurance. This suggests that policy makers should focus on increasing the numbers of children enrolled in public health insurance programs such as Medicaid and the State Children's Health Insurance Program (SCHIP).

Keywords

Disparities; Access; Mental health; Child welfare

Introduction

The child welfare system is a particularly compelling context for examining disparities in health service access both because these children are extremely vulnerable and because, at least theoretically, child welfare agencies can facilitate access to needed services. Children in the child welfare system have been shown to have disproportionately high rates of health problems (Boyle, Decoufle, & Yeargin-Allsoop, 1994; Burns et al., 2004a; Leslie, Gordon, Lambros et al., 2005; Stahmer et al., 2005; Stein, Evans, Mazumdar, & Rae-Grant, 1996) and one recent study found that 87% had some form of physical, developmental, or mental health need (Leslie, Gordon, Meneken et al., 2005).

Non-White children in the child welfare system appear to have especially poor access to formal treatment for physical and mental health problems (health services). In particular, these children receive fewer mental health services than White children, even controlling for mental health problem severity, type of maltreatment, age, sex, insurance, and placement (Garland & Besinger, 1997; Garland, Landsverk, & Lau, 2003; Hurlburt et al., 2004; Leslie, Hurlburt et al., 2005; Leslie, Hurlburt, Landsverk, Barth, & Slymen, 2004; Zima, Bussing, Yang, & Belin, 2000). Potential reasons for racial/ethnic disparities in health service utilization include differences across groups in need for care as well as factors that facilitate access to needed care. For instance, there may be variation across racial/ethnic groups in physical or behavioral problems and/or in the types of maltreatment that children experience. There may also be tendencies to over or under-report health problems of children of different racial/ethnic groups. Racial/ethnic groups may also vary in other demographic attributes, such as age profile, that in aggregate create developmental differences affecting need for care. In addition, the professionals who seek to help these children may perceive need differentially across racial/ethnic groups.

Once need is identified, a range of factors may enable children to access care. At the individual level, health insurance is recognized as a key predictor of health service use (Andersen, 1995). In the aggregate, "health personnel and facilities must be available where people live and work. Then people must have the means and know-how to get to those services and make use of them" (Andersen, 1995, p. 3). For children, this means that caregivers and professionals must deploy such knowledge on their behalf.

For children in the child welfare system, the system itself may also facilitate or impede access to services in ways that privilege children of some racial/ethnic groups over others. As 'gateways' between children and services (Stiffman, Pescosolido, & Cabassa, 2004), child welfare caseworkers play a pivotal role in facilitating access. One concern has been that caseworker ignorance or bias may lead to differential patterns of referrals across racial/ethnic groups, although the few studies conducted thus far on this issue have not found evidence directly supporting this concern. A review of court records for 142 children in foster care did not reveal differences in caseworker recommendations for services across children's racial/ethnic groups, although courts were less likely to direct African American than White children to counseling or psychotherapy (Garland & Besinger, 1997). Among 203 6-12-year olds in the

Los Angeles foster care system, race/ethnicity was not a significant predictor of referrals to specialty mental health care services in models controlling for child and foster parent attributes, although among children diagnosed with Attention-Deficit/Hyperactivity Disorder White children were more likely to receive these services (Zima, Bussing, Yang, & Belin, 2000).

Children in different racial/ethnic groups may also tend to be served by different child welfare agencies because of residential segregation. Thus, there may be differences in children's service access not because of discriminatory practices *within* agencies, but because of differences *across* agencies. For instance, if non-White children are in agencies with fewer ties to service providers, this could affect their likelihood of service receipt. Previous evidence suggests that children in some racial/ethnic groups are disproportionately located in resource-poor areas (Chipungu & Bent-Goodley, 2004; Church, Gross, & Baldwin, 2005; Hines, Lemon, Wyatt, & Merdinger, 2004; Roberts, 2002).

To date, there has been no comprehensive comparison of health service access for children in the child welfare system who are of different race/ethnicities. In addition, despite recent advances in understanding potential causes of identified disparities (Garland & Besinger, 1997; Hurlburt et al., 2004), the analyses have generally not been able to explain fully the effects of race with correlated factors such as family income (Garland & Besinger, 1997; Garland, Landsverk, & Lau, 2003; Leslie, Hurlburt, Landsverk, Barth, & Slymen, 2004; Zima, Bussing, Yang, & Belin, 2000). The study reported here therefore compared several major types of health service access as well as child need and enabling factors among non-Latino/a White, non-Latino/a Black, and Latino/a children in the child welfare system. Among the enabling factors examined was caseworker effort to facilitate access to needed services. We also use contextual sources to understand better differences in access across racial/ethnic groups.

Methods

Sample

The National Survey of Child and Adolescent Well-Being (NSCAW) began with 5,501 children ages 0-14 who were subjects of completed child abuse and neglect investigations during a 15-month period beginning in October 1999 (Dowd et al., 2002). Data for this paper are from the initial two waves of this study, which occurred approximately 2-6 and 12 months after the close of each case investigation or assessment. Because we were interested in child welfare experiences, we restricted our sample to the 2,505 White, Black, and Latino/a children who received child welfare services, defined as case management, family support, health, and/or social services from the child welfare agency, and for whom information about case management and service use was available from caseworkers. We excluded 198 children of other races who received services and 8 whose race was not identified in order to focus on comparisons among the three most common racial/ethnic groups. Of the 2,505 children in the sample, 1,063 (42%) were non-Latino/a Whites, 949 (38%) were non-Latino/a Blacks, and 493 (20%) were Latino/as.

Directors of 86 of the 92 agencies serving children in the NSCAW sample participated in interviews about agency management practices and policy contexts. The number of children for whom director responses were available ranged from 1,966 for agency accreditation by an external entity to 2,095 for the number of ties the child welfare agency had with mental health agencies. Information about local health services resources from Area Resource Files was available for the full sample of 2,505 children.

Descriptive statistics on access (Table 1) and caseworker efforts to secure services (Table 2) as well as the multiple regression model shown in Table 3 were based only on children

caseworkers perceived to need specific types of services. Thus, for instance, caseworkers indicated that 382 children needed services for general health problems. Among these children, data were available for 373 children on whether or not they received the recommended service (“Access”) and data on caseworker effort to secure the service were available for all 382. The rare instances of caseworker non-response to prompts about efforts to secure services they had just characterized as necessary were coded as = 0.

The sample used for the multiple regression model predicting access began with the 772 children recommended for services by child welfare agency staff. There was complete information on all covariates for 537 of these children, who were served by 75 child welfare agencies. Most of the cases lost were due to missing data about child welfare agency practices, most notably accreditation, which was available for only 592 children. *T* tests for interval measures and chi-square tests for categorical measures indicated that the cases in the final analytic sample did not differ significantly on key attributes from those excluded due to missing values for other variables: the mean age was 9.4 years for those retained in the final sample vs. 9.5 for those excluded ($p > .05$); 49.7% of the retained cases were male, vs. 50.3% for those excluded ($p > .05$); and there were no differences in proportions in each racial/ethnic group: the final analytic sample was 58.2% White, 28.1% Black, and 13.7% Latino/a, whereas the excluded cases were 56.8% White, 31.0% Black, and 12.2% Latino/a ($p > .05$).

Measures

To identify perceived service needs for children of different racial/ethnic groups, we used the caseworker's report approximately 12 months after the close of an investigation or assessment of whether or not the child had shown need in any of six health service domains: “services for a health problem,” “routine check-ups or immunizations,” “vision screening or services to correct a vision problem,” “hearing screening or services to correct a hearing problem,” “dental care,” or “services for an emotional, behavioral, or attention problem” (Table 1). The NSCAW glossary defined counseling services as “Services or activities that apply the therapeutic processes to personal, family, situational or occupational problems in order to bring about a positive resolution of the problem or improved individual or family functioning or circumstances. Problem areas may include family and marital relationships, parent-child problems, or drug abuse.” Although the data collection protocol prescribed providing this glossary to each study site, however, it is not clear that interviewers used this level of specificity in their discussions with caseworkers.

We measured perceived access for each health service domain as the percentage of children in each racial/ethnic group reported by child welfare agency caseworkers as receiving each type of service after referral for that service, also approximately 12 months after the close of an investigation or assessment. Caseworkers were encouraged to have case records out during the NSCAW interview; however, service receipt had not necessarily been previously verified. For instance, 54% of caseworkers indicated that they had verified receipt of recommended counseling services. Children whose caseworkers did not make referrals for a given service (e.g., general health problems) were excluded from calculations of the percentages of children who received that service (Table 1).

We also examined perceived child need through the most serious type of maltreatment, categorized as physical abuse, sexual abuse, neglect, emotional abuse, and abandonment; a dichotomous risk measure based on 24 caseworker assessment items; and a dichotomous measure indicating whether or not the child had a Child Behavior Checklist (CBCL) total score over 63, the threshold at which the instrument's developers recommend clinical intervention (Table 2) (Achenbach & Edelbrock, 1991). The CBCL reflects a detailed picture of the child's behavioral problems within the past 6 months and has high reliability and validity (Heflinger, Simpkins, & Combs-Orme, 2000; Hudziak, Copeland, Stanger, & Wadsworth, 2004). Other

child factors included as potentially affecting service use were child age and sex and several enabling factors: financial resources, indicated through health insurance and family income; child residence at baseline (e.g., at home or in foster care); the primary caregiver; and a dichotomous indicator if the current caregiver had not completed high school (Yu, Bellamy, Schwalberg, & Drum, 2001). All of these measures were from the baseline data collection 2-6 months after the close of investigation or assessment.

The final enabling factor we examined at the child level was the caseworker's self-reported effort during the year after investigation or assessment, measured as the percentage of the following actions taken to secure services: (1) suggested that child should get services; (2) provided child's caregiver with names and numbers of service providers; (3) made an appointment for the child; (4) accompanied the child to the appointment; (5) followed up to see if service was provided; and (6) other. For instance, if a caseworker responded "yes" to the prompt about whether or not a child had been referred for services for a "health problem" and indicated that s/he had sought to facilitate access by making an appointment for the child, accompanying the child to the appointment, and "other" (e.g., calling someone at the public health department), the effort score for that service category for that child would be $3/6 = 50\%$. Unlike the enabling factors described in the preceding paragraph, the measure of caseworker effort came from the interview conducted approximately 12 months after the end of the investigation or assessment.

Contextual enabling factors examined included the level of child welfare agency accountability to external stakeholders and support from other agencies, as well as local service availability, all of which were measured at baseline (in 1999-2000). The first three agency-level measures were from an interview conducted with the director of each child welfare agency. We measured the extent of agency accountability to stakeholders through the presence of a consent decree as the result of a lawsuit. Consent decrees are settlements of class action lawsuits filed against child welfare systems, which become contracts binding agencies to rectify identified shortcomings. The majority include requirements that agencies secure needed physical and/or mental health services as well as support caseworker capacity through policies such as specifying maximum caseloads and ensuring adequate supervision and training (Kosanovich & Joseph, 2005). We considered consent decrees to be an involuntary form of accountability. In addition, we included accreditation by an external reviewing body, which may be voluntary or required by the state.

We measured support from other agencies as the combined sum of the following types of ties with mental health providers and schools: (1) discussion and information sharing; (2) development of interagency agreements; (3) cross-training of staff; (4) joint planning/policy formulation for service delivery; (5) working with the agency on child welfare cases; and (6) joint budgeting or resource allocation. We included schools in addition to mental health agencies because schools are common providers of mental health treatment to children in the United States as well as referrers into treatment (Slade, 2003). Local health services resource availability was measured using 2000 Area Resource File data on metropolitan county status and the numbers of child psychiatrists, psychologists, and social workers per 100,000 people under age 18 in the county. Because the unit of analysis was the child, agency attributes were compared at the child level.

Statistical analyses

Previous analyses found minimal non-response bias in child-level data in the overall NSCAW data (Dowd et al., 2002). A common method of confirming non-random missingness of data involves creating a missing data indicator by dividing the sample into children with and without missing data for all variables with any missing data (variables with 5% or more missing cases). Then, the means or frequencies of other key variables can be compared by the missing data

indicator using two sample *t* tests or chi-square tests (Little, 1988). In our case, key variables included items potentially relevant to child welfare service experiences: the number of services subcontracted, use of performance-based measures, annual training required for caseworkers, and number of workers who had terminated employment in the previous year. Nonsignificant results suggested that item missingness of agency-level data was not associated with these variables.

We then compared means and percentages across racial/ethnic groups for children's health needs, service access, and enabling factors, also using two sample *t* tests for interval variables and chi-square tests for categorical variables (Tables 1 and 2). Probability weights allowed generalization of these descriptive statistics to children throughout the US child welfare system (NSCAW Research Group, 2002). In order to accommodate these weights as well as clustering and stratification, we used complex sample commands within Stata Statistical Software Release 10 (*svy:tabulate* for the chi-square tests used with categorical measures and *svy-means* for the *t* tests). One current limitation of these commands is that they cannot be combined with post-estimation adjustments for multiple testing, such as the Bonferroni.

We selected counseling for additional exploration because Black children had less access to this type of service than any group of children for any other service in our analyses (Table 1). Access to mental health care has been the focus of several previous investigations (Garland, Landsverk, & Lau, 2003; Hurlburt et al., 2004; Leslie, Hurlburt et al., 2005; Leslie et al., 2000; Zima, Bussing, Yang, & Belin, 2000). However, the studies to date have not fully explained the racial disparities. Thus, we used a logistic multiple regression model to explore the association between race/ethnicity and access to this type of care, controlling for correlates of race such as insurance status as well as other child and contextual factors that might affect access (Table 3). In addition to child race/ethnicity, we included child need and enabling factors previously shown to predict service access, that is, the Child Behavior Checklist score, a history of sexual abuse, child age and sex; and insurance, placement, and caseworker efforts to facilitate access to counseling (Garland, Landsverk, Hough, & Ellis-MacLeod, 1996; Leslie et al., 2000; Staudt, 2003). Because there was little evidence in the literature on how contextual factors affected access (Hurlburt et al., 2004), we included all agency and county measures included in our preliminary comparisons in the multiple regression, that is, the presence of a consent decree; accreditation; the number of ties to mental health agencies and schools; whether the county in which the agency operated was metropolitan; and the number of mental health providers in the county per 100,000 children.

Once child-level variables were included in the model, there was very little unexplained variance in counseling access at the agency level. We therefore used Stata's complex survey (*svy*) commands in the multiple regression model to accommodate clustering of children within child welfare agencies and geographic stratification of the sample (Dowd et al., 2002). Again, probability weights were included at the child level to adjust for over-sampling of some subpopulations as well as non-response patterns.

Low variance inflation factors indicated the absence of multicollinearity within the model. We were concerned that caseworker effort might be endogenous because caseworkers might make more effort to secure services for White children. However, running the model without the variable for caseworker effort did not change the results, indicating that such endogeneity was not present.

Results

Table 1 shows few differences across racial/ethnic groups in caseworkers' perceptions of either need or access after referrals. Caseworkers were less likely to report that White (42.9%) than

Black children (51.6%) had unmet immunization/check up needs. Caseworkers were more likely to believe that Latino/a children (15.2%) needed vision care than non-Latino/a White children (8.3%). They were also more likely to believe that White children (34.5%) than Black children (24.1%) needed mental health counseling. This latter difference may have been in part due to the fact that significantly more White than Black children had been reported as sexually abused (13.6% vs. 8.0%) and emotionally abused (14.8% vs. 8.6%) ('Maltreatment types,' Table 2).

In general caseworkers perceived access to be very high for services for which they or other child welfare agency staff had made referrals. Latino/a children had significantly higher rates of successful vision referrals than White children, but the levels for both groups were quite high, at 99.5% and 95.5%. A larger gap was observed in counseling service access: Black children received recommended services substantially less frequently than White children (84.8% vs. 93.6%).

The data in Table 2 validate previous reports difference and similarities across racial/ethnic groups of children in the child welfare system (NSCAW, 2003; Department of Health and Human Services Administration for Children and Families, 2005) and provide new information on caseworker efforts and child welfare contexts across racial/ethnic groups. There were differences in patterns of abuse, but overall risk levels did not generally vary in different racial/ethnic groups. It was less common for caseworkers to characterize the most serious maltreatment experienced by Black children as having been physical abuse (27.0%) than for Latino/a children (38.2%). As noted previously, both sexual and emotional abuse were more commonly cited for White than for Black children. Emotional abuse was also more commonly cited for Latino/a children (18.1%) than for Black children (8.6%). The most serious reported form of maltreatment caseworkers reported for White children was less frequently abandonment (3.1%) than for Black (7.3%) or Latino/a (6.2%) children. Latino/a children were less likely to have clinical CBCL scores than were White children, at 2.0% of 2-3-year olds and 24.1% of 4-14-year olds, versus 3.6% for White 2-3-year olds and 36.2% for White 3-14-year olds.

Non-Latino/a White children were significantly less likely than non-Latino/a Black children to have public health insurance (70.7% vs. 81.9%). White non-Latino/a children were also more likely to have private insurance (18.9%, vs. 9.3% of Black children). Black children were significantly more likely than White children to have families with annual incomes under \$10,000/year (33.0% vs. 20.9%) and less likely than White children to have families with incomes above \$40,000/year (13.4% vs. 21.0%).

There were no significant differences across racial/ethnic groups in children's baseline placements except in group home and residential treatment (a combined category), which was more common for Latino/a children (6.4%) than non-Latino/a Whites (4.0%) or Blacks (3.2%). Significantly more Latino/a children (38.3%) than non-Latino/a White children (28.1%) lived with caregivers who had less than a high school education.

There were no differences across racial/ethnic groups in caseworkers' self-reported efforts to secure services for children. Additional analyses (not shown) corroborated caseworker perceptions of equitable treatment: there were no racial/ethnic differences in youth or current caregiver reports of how recently they had last seen caseworkers or how available or responsive they perceived caseworkers to be.

There were also no significant differences across racial/ethnic groups in their child welfare agency's likelihood of operating under a consent decree or being accredited or in the number of ties with mental health providers and schools.

Non-Latino/a White children were significantly less likely than non-Latino/a Black children or Latino/a children to live in metropolitan counties (69.9% vs. 97.1% and 92.4 %). Perhaps because of their relative rurality, White children were in counties with fewer providers than other children. For instance, the mean number of psychologists in White children's counties was 121.1 per 100,000 children, whereas the mean for Black children was 185.1 and the mean for Latino/a children was 189.2. The same pattern applied to general and child psychiatrists, medical professionals, and social workers, although the differences for Latino/a children were not always statistically significant (bottom of Table 2).

The logistic regression model shown in Table 3, controlling for correlates of race/ethnicity and other potentially relevant factors, eliminated the significant association between being Black and the likelihood of counseling service receipt, but just barely (p was exactly equal to .05). Private insurance was associated with lower odds of receiving recommended counseling (OR = .30, $p < .05$), and not having insurance was associated with extremely low odds of receiving counseling relative to having public insurance (OR .07, $p < .001$). Child attributes contributing to access to counseling services included having a report of sexual abuse (OR 4.08, $p < .05$), being an adolescent (OR 3.46, $p < .05$), and a high level of caseworker effort to secure services (OR 5.03 $p < .05$).

No agency or county-level factors were significantly associated with service receipt in the multiple regression model. These results should be interpreted with caution, however, given the wide confidence intervals for some of the measures, suggesting that the limited number of agencies in the final sample (75) and imprecise measurement may have led to inadequate statistical power.

Conclusions

This inquiry sought to identify and explain racial/ethnic disparities in perceived health service access among children in the child welfare system. Findings indicate generally comparable access, with differences not consistently disadvantaging any one group. Caseworkers typically reported that they had obtained the services they had recommended for abused and neglected children. Moreover, in the six dimensions of health care services studied, there were racial/ethnic differences in only two. In one domain (vision) Whites were the relatively disadvantaged group.

However, as in most previous research (Courtney et al., 1996; Garland & Besinger, 1997; Garland et al., 2000; Hurlburt et al., 2004), in this study access to counseling appeared to be lower for Black children than for White children. This study provides some insights into why Black children are receiving fewer counseling services than White children. Caseworkers identified Black children as needing counseling less often than White children, despite comparable appraisals of overall risk. This difference may be due at least in part to the greater reported frequency of sexual abuse among White children in the current sample. Previous analyses of NSCAW data found a strong correlation between sexual abuse and mental health treatment for 2-5-year olds, although not for older children (Burns et al., 2004b). However, a review of previous research on boys not restricted to those in child welfare found those who were non-White to be at *heightened* risk of sexual abuse (Holmes & Slap, 1998). This implies that African American children may be less likely to be referred for mental health treatment due at least in part to under-identification of sexual abuse. Future research on children engaged with child welfare could shed light on this by collecting data from additional sources to validate the report or absence thereof for sexual abuse as well as more complete information about how child need, family beliefs, agency processes, and provider factors may intersect to shape which children access mental health treatment.

Reasonable caseloads, training that incorporates cultural differences (Cash, 2001), and supportive supervisors may all improve the appropriateness of mental health referrals (Pecora, 1991). These, rather than subsequent caseworker efforts to access services, may be appropriate points of intervention to reduce racial/ethnic access disparities, given that caseworkers did not report working any harder to obtain services for children of any racial/ethnic group once they had made a referral (and parent and child perceptions corroborated their reports). Given the extent to which courts drive mental health services for children in child welfare (Fedoravicius, McMillen, Rowe, Kagotho, & Ware, 2008), training for judges may also improve the fit between children's needs and recommended services.

It is not surprising that risk was unrelated to access in the multiple regression model, since the sample was restricted to children whose caseworkers perceived a need for mental health counseling. The very strong association with insurance status, however, was a sobering reminder of the extent to which money affects health care access in the United States. The State Children's Health Insurance Program has produced substantial gains in public health insurance coverage among lower income children (Duderstadt, Hughes, Soobader, & Newacheck, 2006); however 8.3 million children (11.2%) remain uninsured (Center on Budget and Policy Priorities, 2006). It should also be borne in mind that coverage for services such as counseling is not uniformly provided by private insurance plans, and in many cases public insurance programs are comparatively more comprehensive (Ku, 2007).

One approach to enhancing access to care would be to allocate funds to child welfare agencies to pay for counseling services, potentially augmenting payments for children with public insurance. This might be managed in some states through Medicaid Title IV-E child welfare waivers, which allow flexibility in the use of Medicaid funds for children in the child welfare system. Title IV-E, however, is intended to be cost neutral, which means that any increased funds for counseling or other health care would come out of funds for other services for vulnerable children. If stronger public support can be mobilized for children's mental health services, states should allocate additional funds for this purpose.

Previous research has suggested that lower levels of mental health care for Black children may reflect different parental beliefs about the appropriateness of such treatment (Lerman & Pottick, 1995; McKay, Pennington, Lynn, & McCadam, 2001). NSCAW data do not include caregiver perceptions of current or recommended services; thus we could not include this factor in the multiple regression model. However, caregivers were asked to indicate why any previous mental health treatment had ended, including their own doubts about treatment effectiveness or appropriateness. Chi-square tests (not shown) did not reveal differences across racial/ethnic groups in reasons for treatment termination. This provides indirect evidence that caregiver beliefs were not driving the differential access found in this sample.

The multiple regression model in this study did not support Hurlburt et al.'s (2004) finding, also from NSCAW data, that child welfare agency ties to other agencies reduce the effect of race on mental health service use. This may be attributable to differences in the samples as well as the type of services examined in the studies. Hurlburt et al. included the full sample of children in their analyses, whereas we restricted our multiple regression sample to children identified by agency staff as needing counseling. Although in theory access to services is only relevant for children who need them, agency identification of need is inherently imperfect. It is also possible that agency ties having differing effects for the subsample of children with identified need than for children served by child welfare as a whole. We used caseworker reports 12 months after investigation/assessment closure of access to new "counseling for an emotional, mental health, or attention problem" based on agency referrals, while Hurlburt et al. used both 2-6-month and 12-month current caregiver reports of clinic-based specialty mental health services, therapeutic nurseries, day treatment, or private professionals. We think

that our measure of service use is more appropriately broad in terms of the sources of care; however, current caregivers may know more than caseworkers about what care children are actually receiving. In addition, relying on reports of service access collected at a single point in time may have led to some under-reporting in the current study. In measuring inter-agency coordination, we included schools as potential partners, and Hurlburt et al. did not; additional analyses including only ties to mental health agencies, however, did not change our results. Future research is necessary to more clearly show whether and how inter-agency ties lead to improved access and reduced disparities.

Counseling is particularly important for many children in child welfare because of the traumas that have precipitated their involvement with this system and, in some instances, because of the additional disruption of separation from their families. Children who withdraw or act out may be caught in vicious cycles of social and academic failure that undermine their prospects for constructive participation in society (Jimerson, Ferguson, Whipple, Anderson, & Dalton, 2002). Mental health services are imperative to break these patterns of entrapment. Of course, access alone is not sufficient. Counseling must be appropriate to children's needs and of sufficient duration to produce lasting behavioral change. In addition, parents of abused and neglected children must change their own behaviors to create supportive environments for healthy development. Nonetheless, the gap between access and needs is a serious concern because this means that some children do not even have a chance at using services that could facilitate their mental health and functioning.

The data available for these analyses were limited in several respects. First, reliance on caseworker perceptions undoubtedly resulted in some instances of inaccurately reported child need and/or access. In each instance, both false positives (i.e., perceptions of need in the absence of clinical indications and reports of services that children did not actually receive) and false negatives were possible. Concerns about confidentiality precluded examination of service availability for areas smaller than counties, but high numbers of providers at the county level may be irrelevant if access occurs at the neighborhood level. Further, the large number of comparisons in the bivariate statistics made it possible that some were actually due to chance. Conversely, there were very large confidence intervals for some estimates and the cell sizes for Latino/a children were sometimes small; thus, despite the large overall sample size we may have not had sufficient power to detect some important effects. The available dichotomous measures of health service access did not capture duration, intensity, or quality. Finally, at the time of publication these data are several years old. Attitudes toward race and ethnicity continue to evolve in the United States. Hence, it will be important to conduct similar analyses of the next generation of NSCAW data.

Despite these limitations, this study indicates that race/ethnicity is generally not correlated with differences in health service access for children in the child welfare system. In addition, caseworker effort to facilitate services they believe children need does not appear to vary across racial/ethnic groups. Our univariate findings, however, indicate that caseworkers more frequently perceived White than Black children as needing counseling and were more successful in procuring services upon referral. Future research should continue to investigate the reasons why Black children receive fewer needed counseling services. In addition, policies that support proactive case management and better availability of health services may improve access for all of children in the child welfare system.

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Caseworker perceptions of health service need and reports of access across race/ethnicity.

Table 1

	Combined sample size for each measure (total $n = 2,505$)	Non-Latino/a White ($n = 1,063$)	Latino/a Black ($n = 949$)	Latino/a ($n = 493$) Chi-square and t test comparison between groups
Need				
Health problem	2,483	9.1%	9.3%	13.1%
Immunization/check up	2,475	42.9%	51.6%	53.4%BW
Vision	2,460	8.3%	8.7%	15.2%LW
Hearing	2,461	5.7%	8.2%	8.0%
Dental	1,787	24.6%	27.3%	32.5%
Counseling for an emotional, attentional, or behavioral problem	2,485	34.5%	24.1%	28.8%BW
Access				
Health problem	373/382 ^a	99.1%	97.1%	96.5%
Immunization/check up	1,472/1,531	98.0%	98.6%	97.6%
Vision	327/340	95.5%	96.1%	99.5%LW
Hearing	259/270	97.7%	96.3%	99.0%
Dental	609/661	92.1%	91.1%	93.1%
Mental health counseling for an emotional, attentional, or behavioral problem	707/772	93.6%	84.8%	92.9%BW

BW = Black-White comparison significant at $\alpha = .05$; LW = Latino/a-White comparison significant at $\alpha = .05$; LB = Latino/a-Black comparison significant at $\alpha = .05$.

Overall number of children in each racial/ethnic category unweighted. All other descriptive statistics adjusted through probability weights.

^aFor instance, information about access to services for "health problems" was available for 373 out of the 382 children for whom child welfare agency staff had recommended such services.

Table 2

Comparisons of child need and enabling factors across race/ethnicity.

Attribute	Combined sample size (total n = 2,505)	Non-Latino/c White (n = 1,063)	Non-Latino/a Black (n = 949)	Latino/a (n = 493) Chi-square and t test comparison between groups
Maltreatment types	2,505			
Physical abuse		30.7%	27.0%	38.2%BL
Sexual abuse		13.6%	8.0%	12.0%BW
Neglect		13.4%	17.7%	15.2%
Emotional abuse		14.8%	8.6%	18.1%BW, BL
Abandonment		3.1%	7.3%	6.2%BW, LW
% Children high risk, as assessed by caseworker	2,352	43.4%	43.3%	42.3%
CBCL > 64	2,505			
Age 2-3		3.6%	3.3%	2.0%LW
Age 4-14		36.2%	34.2%	24.1%LW
Age (years)	2,505			
0-1		16.3%	20.2%	19.1%
2-5		23.1%	23.6%	23.6%
6-10		35.2%	27.8%	28.2%
11 →		25.4%	28.4%	29.1%
Boy	2,505	53.7%	51.6%	45.4%
Insurance status	2,476			
Public		70.7%	81.9%	70.7%BW, BL
Private		18.9%	9.3%	14.5%BW
Military		0.4%	1.0%	1.3%
Uninsured		9.9%	7.8%	13.7%
Family income	2,235			
<\$ 10,000		20.9%	33.0%	22.7%BW
10,000-19,999		27.1%	28.7%	28.4%
20,000-39,999		31.0%	24.9%	29.0%
\$40,000+		21.0%	13.4%	19.8%BW
Placement	2,505			
In home		72.0%	73.9%	70.3%
Non-relative foster care		13.6%	12.2%	10.8%
Kinship foster care		10.5%	10.8%	12.5%
Group/residential treatment or other		4.0%	3.2%	6.4%LW, BL
Current caregiver	2,505			
Biol. parent		62.6%	68.2%	67.0%62.6%
Foster parent		13.5%	12.6%	10.8%13.5%
Relative		13.6%	16.1%	15.4%13.6%
Non-relative		5.3%	3.2%	6.8%5.3%
Current caregiver had less than high school formal education	2,485	28.1%	28.9%	38.3%LW
Caseworker efforts to secure needed services. Mean % of six possible steps listed ^d				
Health problem	382 ^d	46.5%	48.8%	52.2%
Immunizations/checkup	1,531	34.0%	37.6%	36.6%
Vision	340	37.9%	41.1%	42.6%
Hearing	270	45.6%	43.7%	44.8%
Dental	661	38.7%	36.6%	36.5%
Counseling for an emotional, attentional, or behavioral problem	772	48.4%	51.2%	45.7%
Agency accountability to external stakeholders	2,050	12.1%	17.0%	15.5%
Agency operating under consent decree	1,966	21.5%	31.4%	24.2%
Accredited				
Support from other agencies	2,095	7.2	6.8	6.9
Number of ties to mental health agencies and schools				
Local health services resource availability				

Attribute	Combined sample size (total $n = 2,505$)	Non-Latino/c White ($n = 1,063$)	Non-Latino/a Black ($n = 949$)	Latino/a ($n = 493$)	Chi-square and t test comparison between groups
Metropolitan county	2,505	69.9%	97.1%	92.4%BW, LW	
Medical professionals/100,000 children	2,505	829.9	1212.5	929.7BW, BL	
Generalist psychiatrists/100,000 children	2,505	37.5	57.6	43.4BW	
Child psychiatrists/100,000 children	2,505	4.9	7.6	6.4BW	
Psychologists/100,000 children	2,505	121.1	185.1	189.2BW, LW	
Social workers/100,000 children	2,505	538.2	873.8	658.6BW, BL	

BW = Black-White comparison significant at $\alpha = .05$. LW = Latino/a-White comparison significant at $\alpha = .05$. LB = Latino/a-Black comparison significant at $\alpha = .05$. Overall number of children in each racial/ethnic category unweighted. All other descriptive statistics adjusted through probability weights.

^aThe n for each type of caseworker effort was the number of children child welfare agency staff reported as needing that type of service.

Table 3

Logistic model of counseling access among children with perceived need.

Variable	Odds ratio	95% confidence interval
Child level		
Need factors		
Risk		
Child Behavior Checklist score, centered	1.00	.96–1.04
Sex abuse	4.08*	1.57–10.63
Race/ethnicity (referent group non-Latino/a White)		
Black	.23	.05–.99
Latino/a	1.18	.33–4.27
Other demographics		
Age (referent group ≤5 years old)		
6–10 years old	2.49	.8–7.59
11 years or older	3.46*	1.20–10.02
Boy	1.42	.51–3.97
Enabling factors		
Insurance (referent group public)		
Private	.30*	.11–.82
Self pay (uninsured)	.07***	.02–.27
Placement (referent group in-home)		
Foster care	1.10	.24–4.95
Kinship care	5.57	.94–32.94
Group home	3.33	.50–22.12
Case management		
Caseworker effort to access behavioral counseling services	5.03*	1.48–17.02
Contextual		
Internal agency management transparency		
Agency operating under consent decree	1.97	.95–4.10
Accreditation	.46	.20–1.06
External agency ties		
Number of ties to mental health agencies and schools	1.08	.96–1.22
County-level resource availability		
Metropolitan county	1.54	.50–4.77
Number of child psychiatrists, psychologists, and social workers in county, combined	1.00	1.00–1.00

N = 657 children in 75 child welfare agencies. Sample restricted to children child welfare caseworkers reported to need counseling.

* $p < .05$.

*** $p < .001$.