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Caseworker-Perceived Caregiver Substance Abuse and Child Protective Services Outcomes

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Abstract

We used data from the National Survey of Child and Adolescent Well-Being to examine associations of child protective services (CPS) caseworkers' perceptions of caregiver substance abuse with their perceptions of the severity of risk and harm a child experienced as a result of alleged maltreatment, as well as with whether a family experienced a range of CPS outcomes. The outcomes included whether the family received services from CPS, was substantiated for maltreatment, experienced child removal, and was subject to a termination of parental rights (TPR) petition. We also compared the magnitude of the association between caseworker-perceived caregiver substance abuse and each outcome to that of the association between other maltreatment-related risk factors and each outcome. Findings suggest that, all else equal, caseworker-perceived caregiver substance abuse is associated with increased caseworker perceptions that children have experienced severe risk and harm, and also with an increased probability of each of the CPS outcomes except TPR. Moreover, these associations are equal in magnitude or larger than those between the other risk factors and the outcomes. Thus, our findings imply that CPS decisions are heavily influenced by caseworker perceptions of caregiver substance abuse, regardless of the presence of other risk factors for child maltreatment.

Safe, stable, and permanent homes are crucial for children's healthy development and well-being. Yet, more than a tenth of all children in the U.S. live with a parent who abuses or is addicted to alcohol and/or drugs (Substance Abuse and Mental Health Services Administration [SAMHSA], 2009). These children are disproportionately at risk for both poor developmental outcomes (Christoffersen & Sothill, 2003; Johnson & Leff, 1999; Osborne & Berger, 2009; Stanger, Dumenci, Kamon, & Burnstein, 2004) and for being abused or neglected (Locke & Newcomb, 2003; Ondersma, 2002; Walsh, MacMillan, & Jamieson, 2003). They are also at risk for becoming involved with child protective services (CPS) and, potentially, for being removed from home and placed in substitute care if their home environment is deemed to threaten their safety.

A large proportion of children who are the focus of child maltreatment investigations and, in particular, of those who are removed from home due to abuse or neglect (Besinger, Garland,

Litrownik, & Landsverk, 1999; Gibbons, Barth, & Martin, 2005), have parents with substance abuse problems. Research suggests that as many as 40% to 80% of families involved with CPS may be affected by parental substance abuse (National Center on Addiction and Substance Abuse [CASA], 1999; SAMHSA, 2003; Young, Boles, & Otero, 2007; Young, Gardner, & Dennis, 1998), with estimates varying widely by factors such as intensity of CPS involvement (e.g., reported, substantiated, child removed), how substance abuse is defined and measured, and who provides the substance use data (Gibbons et al., 2005; U.S. Department of Health and Human Services [USDHHS], 1999; Young, et al., 2007). Notably, lower rates of caregiver substance abuse have been found among CPS-involved families whose children remain in-home than among those whose children are removed from home (Gibbons et al., 2005; U.S. Department of Health and Human Services [USDHHS], 1999; Young, et al., 2007). This suggests that families affected by caregiver substance abuse are more prominently represented among cases receiving more intensive CPS intervention than those receiving less intensive intervention.

Additional evidence suggests that, on average, children of substance abusing parents enter the CPS system at younger ages than other children, are victims of more severe maltreatment, come from families with greater numbers of presenting problems, and are more likely to be re-reported for maltreatment than other CPS involved children. The former are also more likely to be placed in foster care and, once there, to remain in care longer and experience greater numbers of placements (Barth, Gibbons, & Guo, 2006; Besinger, et al., 1999; Connell, Bergeron, Katz, Saunders, & Tebes, 2007; Smith & Testa, 2002; USDHHS, 1999; Vanderploeg, Connell, Caron, Saunders, Katz, & Tebes, 2007; Wolock & Magura, 1996). Thus, it is critical to ensure that public child welfare practices and policies effectively address the needs of children with substance abusing parents. Yet, we know surprisingly little about the extent to which caseworker judgments regarding maltreatment severity and decisions about CPS intervention with a family may differ depending on whether a caseworker perceives that caregivers do or do not have substance abuse problems. Moreover, we know little about the relative influence of caseworker perceptions of caregiver substance abuse problems, as compared to their perceptions of other maltreatment-related risk factors, on these outcomes.

To begin to address these gaps, we used data from the National Survey of Child and Adolescent Well-Being (NSCAW) to investigate whether a CPS caseworker's perception that a child's caregiver had a substance abuse problem is associated with a family's subsequent experiences with the child welfare system. These experiences included caseworker judgments of whether the child was subject to severe risk of harm and severe harm as a result of the alleged maltreatment, as well as case outcomes such as whether CPS provided or arranged any services for the family and whether the family was substantiated for maltreatment, experienced child removal, and was the subject of a termination of parental rights (TPR) petition. We examined these associations net of a large set of child, family, and case characteristics, including a wide range of maltreatment-related risk factors. As such, our analyses provide insight into whether caseworker-perceived caregiver substance abuse is independently associated with these outcomes as opposed to whether such associations are likely to be spurious (driven by other factors that are correlated with both caseworker perceptions of parental substance abuse and subsequent CPS decisions).

Despite well-documented associations between caregiver substance abuse and child maltreatment, it is unclear whether caregiver substance abuse itself is (or should be) viewed by CPS as an independent indicator of abuse and neglect or whether it is (or should be) viewed as a marker for other maltreatment-related risk factors that may threaten children's safety. If the latter, then caregiver substance abuse should not be directly related to CPS experiences once these other factors are taken into account. Teasing apart these possibilities

is difficult, however, given that caregiver substance abuse is also likely to be correlated with a host of characteristics and behaviors that are associated with both child maltreatment and families' experiences with CPS. These factors, which are outlined in a 2003 USDHHS manual on child abuse and neglect (Goldman, Salus, Wolcott, & Kennedy, 2003), may occur at the parent/caregiver, family, child, and environmental levels. Key parent/caregiver characteristics include psychological well-being, history of abuse and neglect, substance abuse problems, attitudes and knowledge about child development, and age. Important family characteristics consist of family structure, marital conflict and domestic violence, stress, and parent-child interaction. Salient child attributes include age and disability status, as well as temperament and behavior problems (or parental perceptions thereof). Major environmental conditions include poverty and unemployment, social isolation and social support, and community violence. Factors such as these are assessed during child maltreatment investigations via safety and risk assessment tools that are routinely completed by CPS caseworkers (see, e.g., Children's Research Center, 2008). They also make up the "Risk Assessment" section of the NSCAW caseworker questionnaire (Shlonsky, 2007). The inclusion of such measures in the NSCAW data enabled us to estimate associations between a CPS caseworker's perception that a child's caregiver had a substance abuse problem and a family's CPS experiences net of the potential confounding influence of other maltreatment-related risks. As such, our analyses have direct implications regarding whether caseworker-perceived caregiver substance abuse is treated by CPS as an independent indicator of maltreatment as opposed to simply a marker for other maltreatment-related risks.

In addition, we compared the magnitude of the association between caseworker-perceived caregiver substance abuse and each of the outcomes to that of the association between each of the other maltreatment-related risk factors and each of the outcomes. These tests allowed us to gauge the relative importance that caseworkers assigned to (perceived) caregiver substance abuse compared to other (perceived) risk factors for abuse and neglect when making case decisions. Results from these tests provide insight into whether, when making case determinations, caseworkers give more (or less) weight to their perception of a caregiver's substance abuse status than to their perceptions of factors such as parenting problems, the presence of physical violence in the home, and whether a family has a history of maltreatment.

Finally, we estimated two extensions to our primary analyses. First, we examined whether the association between caseworker perceived caregiver substance abuse and whether a family received any services from CPS predominantly reflected the receipt of substance abuse services or also reflected receipt of other types of services. To do so, we tested whether families with caseworker perceived caregiver substance abuse had an equal probability of receiving non-substance abuse-related services as did otherwise similar families. These analyses provide insight into whether families identified by CPS as having substance abuse problems are referred for services aimed at ameliorating other problems they may be experiencing in addition to caregiver substance abuse or whether CPS tends to narrowly provide services that are only focused on their substance abuse problems. Second, we estimated models that controlled for whether the caregiver received substance abuse services while predicting whether a family experienced each of the CPS case outcomes. These models assessed whether and how substance abuse treatment may be associated with substantiation, child removal, and TPR. Their results have implications regarding whether CPS and substance abuse "clocks" or "timelines" may be incompatible, as has been argued in prior work (CASA, 1999; U.S. Department of Health and Human Services [USDHHS], 1999): Positive associations between substance abuse treatment and these outcomes may suggest incompatibility between the two systems, whereas negative associations may suggest that caregiver participation in substance abuse treatment helps to preserve families by reducing substantiations, removals, and TPRs.

Method

Participants

Our data were drawn from the NSCAW, the first study in the United States to collect data from a national probability sample of children and families coming into contact with CPS. The full NSCAW sample includes 5,501 children age 14 or younger (at baseline), who were the subject of a CPS investigation between fall 1999 and winter 2000. Regardless of case disposition, data were collected from children, caregivers, teachers, and CPS caseworkers via baseline interviews (on average about 14 weeks after the CPS investigation that triggered inclusion in the sample) and interviews conducted approximately 12-, 18-, and 36-months after enrollment in the study (see USDHHS, 2005). Our analysis sample consisted of 4,156 children for whom a baseline caseworker interview was completed and who had non-missing data on the caseworker-perceived caregiver substance abuse items as well as our six outcome variables (two of which, child removed from home and TPR pursued, were constructed from a combination of caseworker- and caregiver-reported data across the 12-, 18-, and 36-month interviews). The NSCAW caseworker response rate at baseline was 93%. Response rates for caseworkers (caregivers) at 12-, 18-, and 36-months were 85% (82%), 94% (85%), and 97% (84%). All baseline and caregiver response rates are based on the initial NSCAW sample of 5,501; caseworker response rates in later waves are based on cases for which a caseworker interview was necessary (family had received services during the period between waves) (Dowd et al., 2008). From the full NSCAW sample, we excluded 404 (7%) children whose caseworkers did not complete a baseline interview and an additional 941 (17%) children who were missing data on caseworker-perceived caregiver substance abuse and/or any of the outcome measures. All of our analyses were weighted to adjust for the unequal probabilities of sample selection that were associated with NSCAW's stratified, clustered design, as well as for non-response (Dowd et al., 2008). Given extreme variability in the NSCAW weights (values range from 1 to 6,908), we followed Rubin and colleagues' (2007) suggestion that they be trimmed (top-coded) at the 95th percentile.

Measures

Caseworker-perceived caregiver substance abuse—Our key independent variable was a dichotomous indicator (1 = *yes*) that the caseworker perceived the primary or secondary caregiver as having a drug or alcohol abuse problem. We constructed this measure from five items included in the NSCAW baseline caseworker interview. Four of these items were drawn from the "Risk Assessment" section of the questionnaire in which the caseworker was asked whether, at the time of initial investigation, there was: (1) active alcohol abuse by the primary caregiver; (2) active alcohol abuse by the secondary caregiver (if applicable); (3) active drug abuse by the primary caregiver; and (4) active drug abuse by the secondary caregiver. The fifth item consisted of an indicator for whether the caseworker reported that substance abuse services were provided to or arranged for a child's caregiver. Families for which the caseworker responded affirmatively to any of these five items were coded as having a caregiver who was perceived by the caseworker to have a substance abuse problem.

It is important to note that this measure is limited to caseworker perceptions rather than reflecting actual substance abuse. Clearly, caseworkers have imperfect information through which to make a determination of caregiver substance abuse and may err in both directions when doing so. Indeed, evidence from NSCAW suggests that caseworker and caregiver reports of caregiver substance abuse are inconsistent (Gibbons, et al., 2005). We used data on caseworker perceptions for two reasons. First, caregiver-reported data are only available for children who were not removed from home at the time of the initial NSCAW interview.

Second, caseworker perceptions are important in and of themselves as they may influence caseworker decision making in all aspects of a case.

Outcomes—We focused on six outcomes—two measures of caseworker perceptions of maltreatment severity and four measures of CPS case outcomes. Our maltreatment severity measures consisted of dichotomous indicators (1 = *yes*) of whether the caseworker perceived the alleged maltreatment that was the focus of the original investigation as resulting in: (1) severe risk of harm to the child or (2) severe harm to the child. Our four CPS case outcomes are indicators that: (1) the initial investigation resulted in services being arranged or provided for the child or family; (2) the initial investigation resulted in a substantiation for maltreatment; (3) the child was removed from home at some point between the initial investigation and the end of the NSCAW observation period (approximately 36-months after the initial interview); and (4) CPS pursued (initiated or completed) TPR between the initial investigation and the end of the NSCAW observation period.

Child and family characteristics—In our multivariate analyses, we controlled for several demographic characteristics of sample children and their families. These included indicators (1 = *yes*) that the child is female; the child is Black, Hispanic, or of another race/ethnicity (with non-Hispanic White serving as the reference category); and a secondary caregiver was present in the household at the time of the CPS investigation that prompted inclusion in the NSCAW sample. We also controlled for a continuous measure of child age (in months).

Maltreatment allegations—We assessed whether a family was investigated for five categories of maltreatment. These included physical abuse, sexual abuse, physical neglect (failure to provide for a child's basic needs, unsanitary living conditions, prenatal drug exposure), lack of supervision (including reports filed when parents were arrested), and other forms of maltreatment (including emotional maltreatment, abandonment, moral/legal maltreatment, educational maltreatment, exploitation, and other forms of abuse or neglect not included in the above categories). Specifically, we included in our multivariate analyses dichotomous variables (1 = *yes*) indicating whether each type of maltreatment was alleged in the initial report that formed the basis of the investigation that triggered a family's eligibility for the NSCAW sample. These indicators were not mutually exclusive given that children may experience multiple types of abuse and neglect.

Maltreatment-related risk factors—We utilized dichotomous indicators for 7 types of maltreatment-related risks. For each, the family was assigned a "1" if the caseworker reported that any of the conditions in the category were present and a "0" if none were present. Child-related risks included that the child had a poor ability to self protect and that the child had special needs. Caregiver-related risks included that the caregiver had a mental health problem, recent arrests, a cognitive impairment, and a physical impairment. Indicators of prior maltreatment or CPS involvement included that the family had a prior report, prior investigation, prior substantiation, had received child welfare services in the past, and that the caregiver had a history of engaging in maltreatment. Parenting skills-related risks included that the caregiver had poor parenting skills and that the caregiver had unrealistic expectations of the child. Physical violence-related risks included that the family had a history of domestic violence, the caregiver used excessive discipline, and the family had active domestic violence. Negative parent interactions with CPS included that the caregiver had no motivation to change and that the caregiver was not reasonably cooperative with the caseworker. Situational risks included that the family had high stress, low social support, and economic hardship.

Missing data—Information on one or more of the child and family characteristics, maltreatment allegations, or maltreatment-related risk factors was missing for some children in our analysis sample. However, rates of missing data were relatively low—below 8% for all covariates. To retain families with missing data, we set missing values for discrete variables to zero and missing values for continuous variables to their sample means; we then created dummy variables to denote the presence of missing values.

Empirical Strategy

We used a series of probit regressions (Long, 1997) to estimate associations between caseworker perceptions of caregiver substance abuse and the outcomes of interest. Both probit and logit models are commonly used regression techniques when working with binary dependent variables. Although they rely on different (generally untestable) assumptions regarding functional form, they tend to produce substantively equivalent results. Probit results are typically presented as marginal effects, which are interpreted as the percentage point change in the probability of an outcome that is associated with a one unit change in a predictor. Logit results are typically presented as odds ratios. We find the interpretation of marginal effects to be substantively more straightforward than that of odds ratios. We therefore present results from probit, rather than logit, regressions. In supplemental analyses, however, we re-estimated the full model for each outcome using a logit regression and confirmed that those results (not shown) were consistent with the probit results presented here.

For all outcomes, we first estimated a probit model that included the child and family characteristics, maltreatment allegations, caseworker-perceived maltreatment-related risk factors and (for the CPS case outcomes models) maltreatment severity measures, but did not include the caseworker-perceived caregiver substance abuse measure. We then estimated a second probit model in which we added the caseworker-perceived caregiver substance abuse measure. This strategy allowed us to examine the magnitude and significance of associations of caseworker-perceived caregiver substance abuse with the outcomes, net of the full set of covariates.

In the tables that follow, we present estimates of the marginal probability of each outcome that is associated with each of the caseworker-perceived maltreatment-related risk factors and that which is associated with caseworker-perceived caregiver substance abuse. We also show results of Wald tests (Long, 1997) of: (1) the joint significance of each set of covariates and (2) the statistical equivalence of the parameter estimate (marginal probability) associated with caseworker-perceived caregiver substance abuse and that associated with each of the other caseworker-perceived maltreatment-related risk factors (for model 2 only). We do not present parameter estimates for the other covariates given both space constraints and because they are not the focus of our study.

Results

Descriptive Statistics

Descriptive statistics (Table 1) indicate that 23% of the children in our sample had a primary or secondary caregiver who the caseworker perceived as having an alcohol or drug problem, or for whom substance abuse treatment was provided or arranged. About 15% of these children had a primary or secondary caregiver who the caseworker perceived as having an alcohol problem and 13% had a caregiver who was perceived as having a drug problem. Approximately 1% had a caregiver for whom substance abuse treatment was provided or arranged, although the caseworker did not report an alcohol or drug problem.

The descriptive statistics also reveal significant differences by caseworker-perceived caregiver substance abuse status with regard to all of the outcome variables, as well as the vast majority of the child and family characteristics, maltreatment allegations, and caseworker-perceived maltreatment-related risk factors. Caseworkers were considerably more likely to report that children whose caregivers were perceived as having substance abuse problems were at severe risk of harm and had been severely harmed as a result of the alleged maltreatment. These families were also substantially more likely to have services arranged or provided for them and to have the initial maltreatment allegation substantiated, the child removed from home, and TPR pursued. In addition, children for whom caseworkers perceived caregiver substance abuse as being a problem were, on average, younger than those whose caregivers were not perceived as having a substance abuse problem (not shown in table; mean = 89.5 months vs. 79.4 months; $t=-3.94$; $p<0.000$). The former were also less likely to be Hispanic and less likely to have a secondary caregiver in the home. In terms of maltreatment allegations, children whose caregivers were perceived as having a substance abuse problem were less likely to have been reported for physical and sexual abuse and more likely to have been reported for lack of supervision and “other” types of maltreatment. Finally, caseworkers reported that these children were more likely than children whose caregivers were not perceived as having substance abuse problems to have experienced each category of maltreatment-related risk factors with the exception of child-related risks. Likewise, these children were perceived as more likely to have experienced each of the individual factors that comprise the risk categories (not shown in table), with the only exceptions being whether the child had a poor ability to self protect and whether the child had special needs.

Probit Analyses

Tables 2 and 3 present findings from our probit analyses. Table 2 shows results for caseworker-perceived severity of risk and harm; Table 3 shows results for the CPS case outcomes. In each table, model 1 included all of the covariates, but excluded the caseworker-perceived caregiver substance abuse measure. We added this measure in model 2. Results for model 1 in Table 2 reveal that 4 of the 7 maltreatment-related risk factors (child-related risks, parenting skills-related risks, physical violence-related risks, and negative parent interactions with CPS) are associated with an increased probability that the caseworker perceived the child as having experienced both severe risk of harm and severe harm. Three risk factors (caregiver-related risks, prior maltreatment or CPS involvement, and situational risks) are not associated with either of these outcomes. Results from the Wald tests for joint significance indicate that each set of covariates—child and family characteristics, maltreatment allegations, and maltreatment-related risk factors—is jointly significant with regard to each outcome.

Results from model 2 reveal that, even after adjusting for all of the covariates, caseworker-perceived caregiver substance abuse is associated with a 9 percentage point increase in the probability that the caseworker perceived the child as having experienced severe risk of harm and a 4 percentage point increase in the probability that the caseworker perceived the child as having experienced severe harm. These are large effects, representing increases of 90% and 50% in the probability of these outcomes, respectively, given that the mean rates at which they occur in our sample are 10% and 8% (see Table 1). Results from model 2 also indicate that the addition of the caseworker-perceived caregiver substance abuse measure has relatively little influence on the associations between the other covariates and the outcomes: Each group of covariates remains jointly significant with regard to each outcome and we observe only modest changes in the magnitude of the parameter estimate on each of the maltreatment-related risk factors.

We also conducted Wald tests of whether the parameter estimate for caseworker-perceived caregiver substance abuse is statistically equivalent to the parameter estimates for each of the maltreatment-related risk factors. We found the association of caseworker-perceived caregiver substance abuse with each outcome to be statistically equivalent to or larger in magnitude (as indicated by the “a” superscripts in the table) than the association of each of the maltreatment-related risk factors with each outcome. For example, caseworker-perceived caregiver substance abuse has a significantly larger association with caseworker-perceived severe risk of harm to the child than that of 5 of the 7 maltreatment-related risk factors (child-related risks, caregiver-related risks, prior maltreatment or CPS involvement, physical violence-related risks, and situational risks) and an equivalent association to that of both parenting skills-related risks and negative parent interactions with CPS. The association of caseworker-perceived caregiver substance abuse with caseworker-perceived severe harm to the child is statistically equivalent to that of each of the risk factors except for whether the family had a history of maltreatment or CPS involvement (which it is significantly larger than).

We present findings for the CPS case outcomes in Table 3. Results from model 1 show that most (but not all) of the maltreatment-related risk factors are associated with an increased probability of each outcome. Of the 7 maltreatment-related risk factors, 5 are associated with an increased probability that services were arranged or provided, 4 with an increased probability of substantiation, 5 with an increased probability of child removal, and 4 with an increased probability that TPR was pursued. For the most part, each group of covariates is also (jointly) significantly associated with each CPS case outcome. However, there are a few exceptions to this pattern: Child and family characteristics are jointly nonsignificant with regard to service provision and maltreatment allegations (types of alleged maltreatment) are jointly nonsignificant with regard to both child removal and TPR pursuit.

The results for model 2 reveal that, net of the full set of covariates, caseworker-perceived caregiver substance abuse is associated with a considerable increase in the probability that services were provided, maltreatment was substantiated, and the child was removed from home. It is not associated with whether TPR was pursued. Consistent with our findings for severity of risk and harm, the addition of caseworker-perceived caregiver substance abuse to these models has only a modest influence on the associations between the maltreatment-related risk factors and the CPS case outcomes. Likewise, it has only a modest influence on the joint significance of each group of covariates.

Also consistent with our results for severity of risk and harm, the Wald tests of the statistical equivalence of the parameter estimates indicate that the association of caseworker-perceived caregiver substance abuse with each of the CPS case outcomes is as large as or larger than the association of each of the maltreatment-related risk factors with these outcomes. Specifically, the association of caseworker-perceived caregiver substance abuse with whether services were arranged for or provided to a family is statistically equivalent to the associations of 5 of the 7 maltreatment-related risk factors (child-related, prior maltreatment or CPS involvement, parenting skills-related, physical violence-related, and situational) with this outcome. It is significantly larger ($p < .05$) than that of 2 of the maltreatment-related risk factors (caregiver-related risks and negative parent interactions with CPS). The association of caseworker-perceived caregiver substance abuse with whether a family was substantiated for maltreatment is equivalent in magnitude to that of 3 of the 7 risk factors (child-related, parenting skills-related, and physical violence-related) and larger than that of 4 (caregiver-related risks, indicators of prior maltreatment or CPS involvement, negative parent interactions with CPS, and situational risks). With regard to child removal, the association of caseworker-perceived caregiver substance abuse is equivalent to that of 6 of the 7 maltreatment related-risk factors and larger than that of physical violence-related risks.

Finally, the association of caseworker-perceived caregiver substance abuse with whether TPR was pursued is statistically equivalent to the association of each of the 7 maltreatment-related risk factors.

Extensions—We estimated two extensions to our primary analyses (results not shown). First, we investigated whether the finding that families with caseworker-perceived caregiver substance abuse are more likely than other families to receive services primarily reflects the provision of substance abuse services to the former. Results indicated that this tends to be the case. Among those families with caseworker-perceived caregiver substance abuse for whom CPS provided or arranged services, the majority received substance abuse services. Some type of services were provided or arranged by CPS for approximately 74% of all sample families with caseworker-perceived caregiver substance abuse. About 55% of these families (41% of all sample families with caseworker-perceived caregiver substance abuse) had substance abuse services provided or arranged, whereas 45% (34%) received only other types of services. Furthermore, when we estimated the full model (model 2) excluding those families for whom substance abuse services were provided or arranged, we found caseworker-perceived caregiver substance abuse to be associated with an 8.3 percentage point *decrease* in the likelihood that a family received services. This suggests that, with the exception of substance abuse services (which were received by only 41% of all families with caseworker-perceived caregiver substance abuse), families perceived as having caregiver substance abuse problems were actually less likely to receive services than otherwise similar families.

Second, prior literature has identified considerable conflicts between CPS and substance abuse treatment “clocks” or “timelines” (CASA, 1999; USDHHS, 1999). To gain insight into whether such conflicts may influence CPS outcomes for families with substance abusing caregivers, we re-estimated the full model (model 2) for the substantiation, child removal, and TPR outcomes, with the addition of a control for whether a caregiver received substance abuse services. We found receipt of substance abuse services to be associated with *increased* probabilities of each of these outcomes. Whereas this may suggest that such conflicts exist, it is also possible that it at least partially reflects increased surveillance of caregivers participating in substance abuse treatment.

Discussion

On the whole, we found that—even after adjusting for a host of child, family, and case characteristics, as well as caseworker-perceived maltreatment-related risk factors—a CPS caseworker’s perception that a child’s caregiver has a substance abuse problem is strongly associated with a family’s experiences with CPS. In particular, it is associated with a substantial increase in the likelihood that the caseworker perceived the child to have suffered severe risk of harm and severe harm as a result of the alleged maltreatment. It is also associated with increased probabilities that the family received services from CPS, was substantiated for maltreatment, and experienced child removal. However, after adjusting for the full set of covariates we found no association between caseworker-perceived caregiver substance abuse and whether a family was the subject of a TPR petition. Finally, our supplemental results indicated that the association between caseworker-perceived caregiver substance abuse and increased service receipt was fully driven by the receipt of substance abuse services—families with a substance abusing caregiver were less likely to receive other types of services than were families perceived by caseworkers as unaffected by caregiver substance abuse.

Our analyses have several limitations that should be considered when interpreting our results. First, with the exception of the demographic characteristics, all of our predictor

variables are based on caseworker perceptions. As such, our results reflect only the extent to which caseworker perceptions of various types and levels of risk—not actual types and levels of risk—are associated with caseworker perceptions of overall severity of risk and harm to a child, as well as with CPS case outcomes. However, given that caseworkers substantially influence and often drive CPS case decisions, caseworker-perceived risk may be even more salient than actual risk for analyses such as ours. As noted above, we recognize that caseworkers have imperfect information through which to make a determination of caregiver substance abuse or other risk factors and may err in both directions when doing so. Nonetheless, we believe that caseworker perceptions of the occurrence of these factors are as important as their actual occurrence in that the former are likely to influence caseworker decision making in all aspects of a case. At the same time, we acknowledge that measures of both caregiver substance abuse and other maltreatment-related risk factors may be more reliable if based on data provided by multiple reporters.

Second, our measures of caseworker-perceived caregiver substance abuse, caseworker-perceived maltreatment-related risk factors, and severe risk and harm to the child are assessed via dichotomous indicators of the presence or absence of these factors, despite that the factors themselves likely occur along a (latent) continuum. Although, a caseworker's dichotomous report that a factor is present for a given family may imply that the family has crossed some (unobserved) threshold in that domain, such that its behavior has become relevant to a particular CPS case decision, we are unable to test this proposition. We are also unable to ascertain whether different degrees or levels of substance abuse or other risk factors may differentially influence CPS outcomes relative to the dichotomous measures included in our analyses. In addition, as with all observational studies, we cannot rule out that the associations between caseworker-perceived caregiver substance abuse and the CPS outcomes are fully or partially driven by factors that are omitted from our analyses.

Although our findings must be viewed with caution in light of these limitations, they suggest that, all else equal, caseworker perceptions of caregiver substance abuse directly influence families' CPS experiences. This may be a cause for concern to the extent that families with substance abusing caregivers are likely to experience more intrusive or harsher CPS interventions, even when their children face no greater safety-related risk than similar children whose caregivers are not perceived as substance involved. Indeed, our finding that caseworker-perceived caregiver substance abuse is associated with increased rates of substantiation and removal—even after adjusting for maltreatment types, caseworker-perceived maltreatment-related risk factors, and caseworker-perceived severity of risk and harm to the child—implies that this may be the case. Furthermore, recent (albeit limited) evidence suggests that low-socioeconomic status mothers who have substance abuse problems do not differ with regard to child maltreatment risk (at least as measured by the Child Abuse Potential Inventory) from similarly disadvantaged mothers who do not have substance abuse problems (Hogan, Myers, & Elswick, 2006). In this context, it is possible that CPS interventions—particularly substantiations and child removals—are inequitably distributed across families with regard to caseworker-perceived caregiver substance abuse status, rather than being based solely on child safety. If so, this phenomenon may be affecting CPS caseloads in terms of both size and composition, such that caseloads may be larger than necessary and may also reflect an unnecessary overrepresentation of substance involved families. Unfortunately, determining whether this is the case is beyond the scope of this study. It may be that substance abusing families do pose greater risk to children in ways that cannot be captured in the NSCAW data. This should be the focus of future research.

Our estimates also reveal that the magnitude of the association between caseworker-perceived caregiver substance abuse and each of our outcomes is equal to or greater than that of a wide range of other risk factors with each outcome. Again, this suggests that

caseworkers' perceptions of caregiver substance abuse status directly influence decisions about the intensity and types of interventions offered or mandated to families, rather than simply being viewed as a marker for other maltreatment-related risks. Moreover, caseworker perceptions of caregiver substance abuse appear to be treated with equal relative importance as caseworker perceptions of parenting skills-related risk factors across all of our outcome measures. They appear to be treated with equal or greater relative importance (depending on the outcome) than caseworker perceptions of child-related risks, caregiver-related risks, prior maltreatment or CPS involvement, physical violence-related risks, negative parent interactions with CPS, and situational risks. This, too, may be cause for concern since many of these other measures should more directly reflect parental actions and omissions that may constitute abuse or neglect than should substance abuse in and of itself.

Our results should not be interpreted as providing definitive evidence that families perceived by caseworkers as having caregiver substance abuse experience more intensive CPS intervention solely because perceptions of substance abuse trigger such differential treatment. It is certainly possible that families perceived as having caregiver substance abuse exhibit greater maltreatment-related risk in dimensions which we were unable to observe in our data. Nonetheless, given that we accounted for 21 caseworker-perceived maltreatment-related risk factors across 7 domains at the child, caregiver, and family levels, in addition to child and family characteristics and maltreatment types and severity, our findings strongly imply the former. Viewed through a signal detection theory (McNicol, 2005) lens, this may suggest that, in a context of uncertainty as to whether a family has crossed a threshold of abuse or neglect that would require a particular CPS action (substantiation, removal), caseworkers may heavily weight (perceived) caregiver substance abuse as indicative of the need for such action. As such, caseworker perceptions of caregiver substance abuse may effectively serve to lower the threshold at which a CPS intervention is mandated by the worker, even in the presence of identical (or lower) overall maltreatment risk than that of otherwise similar families (see Baumann, 1997, for a discussion of signal detection theory and decision thresholds in CPS casework). Indeed, prior research suggests that CPS caseworker decisions are often based on limited evidence, that workers rely heavily on intuition, and that their judgments are considerably influenced by the information that is most easily available, most memorable, or most likely to trigger an emotional response for them (Munro, 1999). Additionally, caseworkers may focus on a particular aspect of a case to the exclusion of the full range of relevant family circumstances and the totality of evidence and options available to them (Munro, 2008). Parental substance abuse may constitute one such aspect. Thus, future research on why and how caseworker perceptions of caregiver substance abuse affect caseworker decision making at all stages of a CPS case appears warranted.

In particular, future work should seek to disentangle the extent to which associations of caseworker-perceived and/or actual caregiver substance abuse with increased child maltreatment substantiations and removals reflect heightened emphasis in CPS decision making on substance abuse itself or the influence of other factors that often co-occur with caregiver drug and alcohol problems. For example, it is possible that CPS outcomes for families affected by caregiver substance abuse are driven by factors such as the chronic nature of addiction, the high incidence of relapse (Green, Rockhill, & Furrer, 2006), and/or conflicts between CPS and substance abuse treatment "clocks" or "timelines" (CASA, 1999; USDHHS, 1999), rather than simply by a caseworker's perception that a caregiver has a substance abuse problem. Future research that considers these factors will allow for a better assessment of how caseworker perceptions of caregiver substance abuse influence case outcomes and whether such influences are intentional. It may thereby have implications for designing child welfare policy that explicitly addresses whether and how a caseworker's

perception of caregiver substance abuse should be considered when determining CPS's course of action with a particular family.

From a policy perspective, ASFA and related state legislation emphasize time-limited provision of reunification services, accelerated permanency planning, and expedited TPRs. These policies serve to increase the likelihood of child removal, provide relatively stringent reunification timelines, and increase opportunities for TPR. They may thereby disproportionately affect substance abusing families given the sometimes extensive timelines required for and the limited availability of substance abuse treatment. As such, they may limit substance abusing families' opportunities for rehabilitation and reunification. Whereas appropriate treatment may better enable many substance abusing caregivers to achieve recovery and provide adequate care for their children, substance abuse treatment services are scarce (Brady & Ashley, 2005; Chavkin, Breitbart, & Elman, 1998) and the gap between those in need of treatment and those who receive it is particularly large for women (Brady & Ashley, 2005; Green, et al., 2006). This lack of available treatment for women is especially salient for caregivers involved with CPS, as most of these caregivers are female.

It is notable that substance abuse services were arranged or provided by CPS for only 41% of those families in our sample that were identified by caseworkers as having caregiver substance abuse problems and that 59% of such families did not receive substance abuse services. In supplemental analyses, we also found that families with caregiver substance abuse were less likely than otherwise similar families to receive services other than substance abuse treatment. That so few families received substance abuse treatment may reflect a scarcity of substance abuse treatment services. That families with caseworker-perceived caregiver substance abuse had fewer non-substance abuse related services provided or arranged for them than did other families—despite having higher rates of substantiation and removal—is troublesome and may suggest that caseworkers view these families' problems as stemming solely from caregiver substance abuse. Caseworkers may, therefore, tend to focus only on this issue rather than taking a more holistic approach to working with a family. To the extent that caregiver substance abuse does not constitute child maltreatment in and of itself, but that families with perceived caregiver substance abuse are more likely to experience substantiation and child removal than otherwise identical families, it may be prudent for CPS to offer interventions specifically aimed at assisting substance abusing parents in retaining custody of their children. Finally, future research is necessary to provide a more complete understanding of why, all else equal, caseworker perceptions of caregiver substance abuse play such a substantial role in determining families' experiences with CPS. Such work may inform policy and practice as to whether substance abusing families *should be* receiving more intensive CPS interventions (substantiations and child removals) and fewer non-substance abuse related services than non-substance abusing families with the same level of maltreatment-related risk.

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Table 1

Covariate proportions for the full sample and by caseworker-perceived caregiver substance abuse status

	Full Sample	No perceived Caregiver Substance abuse	Perceived Caregiver Substance abuse	t-statistic (p-value)
<i>Substance abuse measures:</i>				
Any perceived caregiver substance abuse	0.23	--	--	--
Perceived prim. or sec. cgvr. alcohol abuse	0.15	--	0.65	--
Perceived prim. cgvr. alcohol abuse	0.09	--	0.37	--
Perceived sec. cgvr. alcohol abuse	0.09	--	0.39	--
Perceived prim. or sec. cgvr. drug abuse	0.13	--	0.57	--
Perceived prim. cgvr. drug abuse	0.10	--	0.42	--
Perceived sec. cgvr. drug abuse	0.07	--	0.29	--
Perceived prim. or sec. cgvr. sub. abuse	0.21	--	0.94	--
No perceived sub. abuse, but referral for tmt.	0.01	--	0.06	--
<i>Outcomes:</i>				
Perceived severe risk of harm to child	0.10	0.05	0.24 ^{***}	8.54 (0.000)
Perceived severe harm to child	0.08	0.05	0.16 ^{***}	5.99 (0.000)
Services arranged for or provided to family	0.50	0.43	0.74 ^{***}	9.74 (0.000)
Maltreatment substantiated	0.35	0.27	0.61 ^{***}	10.37 (0.000)
Child removed from home	0.21	0.16	0.38 ^{***}	9.35 (0.000)
TPR pursued	0.05	0.03	0.10 ^{***}	4.97 (0.000)
<i>Child and family characteristics:</i>				
Child female	0.50	0.49	0.51	0.43 (0.665)
White	0.49	0.47	0.53	1.99 (0.050)
Black	0.28	0.27	0.28	0.23 (0.819)
Hispanic	0.17	0.18	0.14 [*]	-2.07 (0.042)
Other race/ethnicity	0.07	0.07	0.05	-1.97 (0.052)
No secondary caregiver	0.29	0.30	0.24 [*]	-1.99 (0.049)
<i>Maltreatment allegations:</i>				
Physical abuse	0.35	0.36	0.29 [*]	-2.28 (0.025)
Sexual abuse	0.12	0.13	0.08 [*]	-2.50 (0.014)
Physical neglect	0.27	0.26	0.30	1.71 (0.091)
Lack of supervision	0.40	0.36	0.52 ^{***}	5.17 (0.000)
Other form of maltreatment	0.21	0.18	0.32 ^{***}	4.85 (0.000)
<i>Maltreatment-related risk factors:</i>				
One or more child-related risks	0.38	0.38	0.42	1.80 (0.075)
One or more caregiver-related risks	0.29	0.22	0.50 ^{***}	9.78 (0.000)
One or more indicators of prior maltreatment or CPS involvement	0.56	0.52	0.68 ^{***}	5.61 (0.000)
One or more parenting skills-related risks	0.36	0.29	0.62 ^{***}	11.51 (0.000)

	Full Sample	No perceived Caregiver Substance abuse	Perceived Caregiver Substance abuse	t-statistic (p-value)
One or more physical violence-related risks	0.39	0.32	0.60***	9.84 (0.000)
One or more negative parent interactions with CPS	0.10	0.07	0.20***	6.41 (0.000)
One or more situational risks	0.60	0.53	0.84***	10.07 (0.000)
Observations	4,156	2,656	1,500	
Weighted %		77.1	22.9	

Note: Proportions presented. Data are weighted. Child-related risks include child has poor ability to self protect and child has special needs. Caregiver-related risks include caregiver has a mental health problem, recent arrests, cognitive impairment, and physical impairment. Indicators of prior maltreatment or CPS involvement are family has a prior report, prior investigation, prior substantiation, has received child welfare services in the past, and caregiver has a history of maltreatment. Parenting skills-related risks include caregiver has poor parenting skills and caregiver has unrealistic expectations of child. Physical violence-related risks include family has history of domestic violence, caregiver uses excessive discipline, and family has active domestic violence. Negative parent interactions with CPS include caregiver has no motivation to change and caregiver not reasonably cooperative with CPS. Situational risks include family has high stress, family has low social support, and family has economic hardship. For mean differences (t-statistics with d.f. = 4154; design d.f. = 83) by substance abuse status:

* p<0.05;

** p<0.01;

*** p<0.001.

Table 2

Marginal probabilities [and 95% confidence intervals] from probit models estimating associations of caseworker-perceived caregiver substance abuse and other risk factors with caseworker-perceived severity of risk and harm

	Perceived Severe Risk of Harm to Child	Perceived Severe Harm to Child
<i>Model 1: Child and family characteristics, maltreatment allegations, and maltreatment-related risk factors</i>		
Perceived caregiver substance abuse	--	--
One or more child-related risks	0.04*** [0.02, 0.06]	0.04*** [0.02, 0.06]
One or more caregiver-related risks	0.01 [-0.01, 0.03]	0.02 [-0.01, 0.04]
One or more indicators of prior maltreatment or CPS involvement	-0.00 [-0.03, 0.02]	-0.00 [-0.02, 0.02]
One or more parenting skills-related risks	0.09*** [0.06, 0.12]	0.05*** [0.02, 0.07]
One or more physical violence-related risks	0.03** [0.01, 0.06]	0.02* [0.00, 0.04]
One or more negative parent interactions with CPS	0.08** [0.04, 0.13]	0.07** [0.03, 0.11]
One or more situational risks	0.02 [0.01, 0.04]	0.01 [-0.01, 0.03]
Wald tests of joint significance [F-statistics (and p-values)]:		
Child and family characteristics	6.57 (0.000)	5.38 (0.000)
Maltreatment allegations	3.95 (0.003)	9.09 (0.000)
Maltreatment-related risk factors	11.97 (0.000)	7.65 (0.000)
<i>Model 2: Add caseworker-perceived caregiver substance abuse</i>		
Perceived caregiver substance abuse	0.09*** [0.06, 0.12]	0.04** [0.02, 0.07]
One or more child-related risks	0.04*** ^a [0.02, 0.06]	0.04*** [0.02, 0.06]
One or more caregiver-related risks	0.00 ^a [-0.01, 0.02]	0.01 [-0.01, 0.03]
One or more indicators of prior maltreatment or CPS involvement	-0.01 ^a [-0.03, 0.01]	-0.00 ^a [-0.02, 0.02]
One or more parenting skills-related risks	0.08*** [0.05, 0.11]	0.04*** [0.02, 0.06]
One or more physical violence-related risks	0.02 ^a [-0.00, 0.04]	0.02 [-0.00, 0.04]
One or more negative parent interactions with CPS	0.07** [0.03, 0.11]	0.06** [0.02, 0.10]
One or more situational risks	0.01 ^a [-0.01, 0.03]	0.01 [-0.01, 0.02]
Wald tests of joint significance [F-statistics (and p-values)]:		
Child and family characteristics	5.85 (0.000)	5.27 (0.000)
Maltreatment allegations	3.18 (0.012)	8.94 (0.000)
Maltreatment-related risk factors	10.71 (0.000)	4.86 (0.000)

Note: 4,156 observations. Marginal probabilities [and 95% confidence intervals] from probit models are presented for perceived caregiver substance abuse and maltreatment-related risk factors; all models control for child and family characteristics, maltreatment allegations, and maltreatment-related risk factors (listed in Table 1). Data are weighted.

*
p<0.05;

**
p<0.01;

p<0.001.

^aSignificantly different (Wald test) from “Perceived caregiver substance abuse” at $p < 0.05$.

Table 3

Marginal probabilities [and 95% confidence intervals] from probit models estimating associations of perceived caregiver substance abuse and other risk factors with CPS case outcomes

	Services Arranged or Provided	Maltreatment Substantiated	Child Removed from Home	TPR Pursued
<i>Model 1: Child and family characteristics, maltreatment allegations, maltreatment severity, and risk factors</i>				
Perceived caregiver substance abuse	--	--	--	--
One or more caregiver-related risks	0.06 [0.00, 0.13]	-0.05 [-0.11, 0.01]	0.07** [0.02, 0.11]	0.01 [-0.00, 0.02]
One or more indicators of prior maltreatment/CPS involvement	0.07* [0.00, 0.13]	-0.03 [-0.09, 0.02]	0.08*** [0.04, 0.12]	0.01* [0.00, 0.03]
One or more parenting skills-related risks	0.25*** [0.17, 0.33]	0.25*** [0.19, 0.32]	0.11*** [0.07, 0.15]	0.01 [-0.00, 0.03]
One or more physical violence-related risks	0.12*** [0.07, 0.17]	0.10*** [0.05, 0.16]	-0.02 [-0.06, 0.02]	-0.00 [-0.02, 0.01]
One or more negative parent interactions with CPS	-0.01 [-0.13, 0.11]	0.05 [-0.04, 0.13]	0.14*** [0.06, 0.21]	0.02* [0.00, 0.04]
One or more situational risks	0.18*** [0.13, 0.23]	0.07** [0.02, 0.012]	0.06** [0.02, 0.11]	0.02** [0.01, 0.03]
Wald tests of joint significance [F-statistics (and p-values)]:				
Child and family characteristics	2.08 (0.065)	2.57 (0.025)	2.29 (0.043)	3.81 (0.002)
Maltreatment allegations	4.55 (0.001)	4.76 (0.001)	1.47 (0.210)	1.75 (0.132)
Maltreatment severity	14.65 (0.000)	29.44 (0.000)	27.96 (0.000)	15.73 (0.000)
Maltreatment-related risk factors	8.95 (0.000)	6.32 (0.000)	7.11 (0.000)	7.16 (0.000)
<i>Model 2: Add caseworker-perceived caregiver substance abuse</i>				
Perceived caregiver substance abuse	0.14*** [0.07, 0.22]	0.18*** [0.10, 0.26]	0.07*** [0.04, 0.11]	0.01 [-0.00, 0.03]
One or more caregiver-related risks	0.05 ^a [-0.01, 0.11]	-0.07* ^a [-0.13, -0.01]	0.06** [0.01, 0.10]	0.01 [-0.00, 0.02]
One or more indicators of prior maltreatment/CPS involvement	0.06* [-0.00, 0.13]	-0.04 ^a [-0.10, 0.02]	0.08*** [0.04, 0.12]	0.01* [0.00, 0.03]
One or more parenting skills-related risks	0.24*** [0.16, 0.32]	0.24*** [0.18, 0.31]	0.11*** [0.07, 0.14]	0.01 [-0.00, 0.02]
One or more physical violence-related risks	0.11*** [0.05, 0.16]	0.09** [0.03, 0.14]	-0.02 ^a [-0.06, 0.01]	-0.00 [-0.02, 0.01]
One or more negative parent interactions with CPS	-0.03 ^a [-0.15, 0.10]	0.03 ^a [-0.07, 0.12]	0.13** [0.05, 0.21]	0.02 [-0.00, 0.04]
One or more situational risks	0.16*** [0.11, 0.22]	0.05 ^a [-0.01, 0.10]	0.05* [0.01, 0.10]	0.02** [0.00, 0.03]
Wald tests of joint significance [F-statistics (and p-values)]:				
Child and family characteristics	2.30 (0.043)	1.80 (0.110)	2.25 (0.047)	3.43 (0.005)
Maltreatment allegations	3.94 (0.003)	3.52 (0.006)	1.20 (0.318)	1.62 (0.164)
Maltreatment severity	11.73 (0.000)	21.51 (0.000)	23.14 (0.000)	14.85 (0.000)
Maltreatment-related risk factors	7.23 (0.000)	4.28 (0.000)	6.56 (0.000)	5.89 (0.000)

Note: 4,156 observations. Marginal probabilities [and 95% confidence intervals] from probit models are presented for perceived caregiver substance abuse and maltreatment-related risk factors; all models also control for child and family characteristics, maltreatment allegations, maltreatment severity, and maltreatment-related risk factors (listed in Table 1). Data are weighted.

*
p<0.05;

**
p<0.01;

p<0.001.

^aSignificantly different (Wald test) from “Perceived caregiver substance abuse” at $p < 0.05$.