Published in final edited form as:

J Am Acad Child Adolesc Psychiatry. 2012 June ; 51(6): 572–581. doi:10.1016/j.jaac.2012.03.006.

Mental Health Problems in Young Children Investigated by US Child Welfare Agencies

Dr. Sarah McCue Horwitz, Ph.D.,
Stanford University, Stanford, CA

Dr. Michael S. Hurlburt, Ph.D.,
University of Southern California, Los Angeles, CA. Child and Adolescent Services Research Center, Rady Children's Hospital, San Diego, CA

Dr. Amy Heneghan, M.D.,
Palo Alto Medical Foundation, Palo Alto, CA

Ms. Jinjin Zhang, MsC, M.A.,
Child and Adolescent Services Research Center, Rady Children's Hospital, San Diego, CA

Ms. Jennifer Rolls-Reutz, M.P.H.,
Child and Adolescent Services Research Center, Rady Children's Hospital, San Diego, CA

Ms. Emily Fisher, M.S.W.,
Child and Adolescent Services Research Center, Rady Children's Hospital, San Diego, CA

Dr. John Landsverk, Ph.D., and
Child and Adolescent Services Research Center, Rady Children's Hospital, San Diego, CA

Dr. Ruth E.K. Stein, M.D.
Albert Einstein College of Medicine/Children's Hospital at Montefiore, New York, NY

Abstract

Objective—To examine the prevalence/predictors of mental health (MH) problems and services use in 12–36 month old children who had been investigated for maltreatment.

Method—Data came from the second National Survey of Child and Adolescent Well-Being (NSCAW II), a longitudinal study of youth ages 0–17.5 years referred to US child welfare agencies. These analyses involved 1117 children 12–36 months of age. Sociodemographic, social services, developmental and health data were collected on the children and caregivers. Outcomes were scores over the clinical cutoffs on the Brief Infant Toddler Social and Emotional Assessment (BITSEA) Scales for 12–18 month olds and the Child Behavior Checklist (CBCL) for 19–36 month olds.

Results—34.6% of 12–18 month olds scored high on the Problem Scale of the BITSEA, and 20.9% on the Competence Scale while 10.0% of 19–36 month olds scored over the CBCL clinical cut-off. Black children were less likely to have elevated scores on the BITSEA Problem Scale but

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Correspondence to: Sarah McCue Horwitz, Ph.D., 117 Encina Commons, Stanford, CA 94305-6019; sarah.horwitz@stanford.edu.

Disclosure: Drs. Horwitz, Hurlburt, Heneghan, Landsverk, and Stein, and Ms. Zhang, Rolls-Reutz, and Fisher report no financial interests or potential conflicts of interest.

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children who lived with a never married caregiver were 5 times more likely to have elevated scores. Competence problems were associated with prior child welfare history. Elevated CBCL scores were associated with living with a depressed caregiver. Few children with identified MH problems, 2.2%, received a MH service. When we added parent skills training that might be related to the treatment of child problems, 19.2% received a service.

Conclusions—Identifiable MH problems are common but few children receive services for those problems. The lack of services received by these young, multi-challenged children is a services systems and social policy failure. Keywords: child mental health problems; child welfare; mental health services use

Introduction

Children presenting to child welfare agencies have high rates of social, emotional, developmental, health and academic problems, the majority of which go unidentified and untreated. Information about mental health (MH) problems (defined as an elevated score on a reliable, valid symptom measure such as the CBCL or a DSM-IV diagnosis) arises largely from studies of children placed in out-of-home settings and suggests that up to 80% may have such problems.¹⁻⁴ This focus on children in foster care has been driven by a lack of data on those who remain in their homes after an investigation for maltreatment despite data that suggest that children who remain at home have levels of MH problems as high as those placed in foster care.⁵

The National Survey of Child and Adolescent Well-Being (NSCAW) was the first nationally representative sample of children who encountered the child welfare system through a maltreatment investigation. Analyses on NSCAW data have confirmed the high prevalence of MH problems across the child welfare population.⁵ Although a large proportion of the NSCAW sample is 2 years and there is ample evidence that MH problems begin early, are persistent and early problems predict later MH problems, the lack of instruments for identifying MH problems in very young children prevented the assessment of these problems in the NSCAW sample.⁶⁻¹³

Jones Harden et al (2010)¹⁴ found that children ≤ 24 months in the NSCAW sample who remained at home or in kinship foster care had poorer functioning than those placed in non-kinship foster care. Stahmer et al (2005)¹⁵ found that 41.8% of toddlers and 68.1% of preschool children in the NSCAW sample had developmental and behavioral problems regardless of living arrangements. Over a 21 month follow-up the developmental/cognitive, language and adaptive behavior scores improved for children in their own homes compared to those placed in foster care; however, there was no improvement in behavior problem scores (baseline mean=52.69 versus follow-up 53.912).¹⁶

NSCAW II is a second nationally representative sample of children who have been investigated for maltreatment assembled 10 years after NSCAW I. In the 10 years between NSCAW I and II, the recognition of MH problems in young children, the ability to assess and treat those problems have improved.^{9,10,17-20} Two parent report scales have been developed, the Infant Toddler Social Emotional Assessment (ITSEA), and its screening version, the Brief Infant-Toddler Social Emotional Assessment (BITSEA).^{19,21} The BITSEA was used in NSCAW II and allows the examination of early signs of MH problems in this nationally representative sample. These analyses were designed to answer three questions rather than test specific hypotheses. The questions were:

1. What is the prevalence of MH problems in 12 to 18 month old and 19 to 36 month old children?
2. What characteristics are related to MH problems?

3. Of those children screening positive on the BITSEA or CBCL, what percentage received a MH service or had a parent who received parenting skills training?

Method

Design and Analytic Sample

Data came from the baseline interviews of NSCAW II, a longitudinal study of 5872 youth ages 0–17.5 years referred to US child welfare agencies where an investigation of potential maltreatment was completed during the sampling period, 2/2008–4/2009. Excluded were agencies in eight states which required contact of a caregiver by agency staff rather than by study staff.²² NSCAW II employed a two stage stratified sample design. The first stage selected geographic areas containing a population served by a single child welfare agency. These primary sampling units (PSUs) served as the basis from which a sample of approximately 60 children with a maltreatment investigation was drawn. Of the 92 PSUs in NSCAW I, 71 were eligible and agreed to participate in NSCAW II and 10 additional PSUs were added. This sample was constructed to be representative of all US children who were subjects of agencies' investigations for alleged maltreatment during the sampling period.²³

Baseline interviews were completed between March, 2008 and September, 2009. The data reported here come from interviews with caregivers and child welfare workers about children 12–36 months of age (N=1117). All procedures for NSCAW II were approved by the Research Triangle Institute's IRB and all analytic work was approved by the Rady Children's Hospital IRB.

Analysis weights

Analysis weights were constructed based on the stages of the sample design, accounting for the probability of county selection and the probability of each child's selection within his/her county of residence. Weights were further adjusted to account for more or fewer population members than expected on the frame, small deviations from the original plan that occurred during sampling, for non-response and for replacement PSUs. All analyses presented utilize weighting in analyses. Non-weighted cell sizes are presented for some analyses to provide detail about the amount of data upon which analyses are based. All parameters were generated using the weights and therefore can be inferred to the U.S. child welfare population.²²

Measures

Sociodemographic variables included child's age, sex, race, placement type at the time of the baseline interview, reason for placement, and contact with the child welfare system prior to the current investigation. The caregivers' age, marital status, education and income were available.

Vineland Adaptive Behavior Scale Screener is a measure of adaptive behaviors with age-specific versions. Each version consists of 15 items in 3 domains: Communication (how well the child speaks and understands), Daily Living Skills (skills needed to take care of oneself), and Socialization (skills needed to get along with others).²⁴ Daily Living Skills and Socialization were included in NSCAW II. If children scored one standard deviation or below the average on either domain they were classified as having problems with adaptive behaviors in that domain.

Chronic Conditions is a dichotomous measure indicating whether any of 11 chronic health problems was endorsed by caregivers. Only conditions that were either clearly chronic (i.e., diabetes) or reported at a rate consistent with known prevalence estimates (e.g.,

hypertension) were included. Health conditions that were excluded due to over reporting included: heart, blood, epilepsy, migraines, arthritis, repeated ear infections, back, STDs and chronic bronchitis. The most prevalent chronic conditions reported were asthma and developmental delays.

Family Risk Score is constructed from caseworkers' interviews. Family risk variables included (1) active alcohol abuse by primary or secondary caregiver (10.1%), (2) active drug abuse by primary or secondary caregiver (15.4%), (3) primary caregiver had recent history of arrests/detention (13.8%), (4) primary caregiver had intellectual or cognitive impairment (3.1%), (5) primary caregiver had physical impairments (4.3%), (6) primary caregiver had poor parenting skills (19.6%), (7) primary caregiver had unrealistic expectations of child (10%), (8) primary or secondary caregiver used excessive/inappropriate discipline (10.6%), (9) history of abuse/neglect of primary caregiver or secondary caregiver (23.4%), (10) Lack of reasonable cooperation by caregiver (8.1%), (11) lack of a supportive caregiver present in the home (44.8%), (12) high stress on the family (50.5%), (13) low social support (24.6%), and (14) caregiver involvement in non-CPS services (27.7%).

Composite International Diagnostic Interview Short Form (CIDI Combined) is a self-report screening tool that was developed by the World Health Organization and adapted from the Composite International Diagnostic Interview. Only questions assessing major depression were asked of all caregivers in NSCAW II.²⁵

Child's Services Use was asked of all primary caregivers using questions from the Child and Adolescent Services Assessment: CASA.²⁶ The CASA has excellent reliability and validity with parent test-retest reliability for ever reporting a MH service of 0.57 to 0.91 (Cohen's Kappa). Validity examined by comparing parent responses to management information system data during the instrument's development indicated that 84% of parent reports were confirmed.²⁶ For these analyses, *specialty MH services* consisted of any inpatient admission to a psychiatric hospital or psychiatric unit in a general hospital, an admission to a hospital medical inpatient unit for a psychiatric problem, any residential treatment center use, and any visits to a MH clinician, a community MH center, day treatment facility or use of a therapeutic nursery. *Any MH services* use consisted of specialty sector use plus in home counseling, visits to a family doctor for a MH issue, visits to a school guidance counselor, and visits to an alcohol or drug clinic.

Parenting Skills Training is a dichotomous indicator of whether in-home caregivers had received any parenting skills training. Specifically, the question asked, "In the last twelve months have you received any parenting skills training?"²⁵ In home caregivers were also asked about other community-based MH, drug and alcohol and domestic violence services.

Outcomes

For 12- to 18-month old children, caregivers were administered the BITSEA. The BITSEA is a 42-item screening tool designed to identify children at risk for social-emotional problems (BITSEA-P) and low social competence (BITSEA-C).²¹ The BITSEA has good internal consistency ($\alpha=.79$ BITSEA-P, $\alpha=.65$ BITSEA-C) and inter-rater reliability ($\alpha=.68$ BITSEA-P, $\alpha=.61$ BITSEA-C). Predictive validity was established by comparing BITSEA scores with one year follow-up ITSEA and CBCL scores. BITSEA-P correlated .53 with CBCL, .45 with ITSEA Internal, .57 with ITSEA External and .55 with ITSEA Dysregulation. BITSEA-C correlated with ITSEA: $-.11$ for Internal, $-.21$ for External and $-.13$ for Dysregulation. Combined BITSEA-P and BITSEA-C scores above the cutoffs identified 85% of the subclinical/clinical scores on the CBCL/1.5–5 with a specificity of 75%.²¹ The BITSEA completed when children were 12–36 months of age predicted 67.9%

of children who met criteria for a psychiatric disorder on the DISC in early elementary school.⁷

For 19- to 36-month old children caregivers were administered the Child Behavior Checklist 1.5–5 (CBCL 1.5–5), a symptom checklist. A T-score of ≥ 64 is considered clinically significant. Test-retest score for the Total Problem Score is .90 and the CBCL 1.5–5 correctly classifies 84.2% of children who were referred for MH services as in need of those services (7.3% false positives and 8.6% false negatives).²⁷

Analyses

Analyses utilized descriptive statistics to summarize key variables of interest, including the MH problem indices. In addition, potential correlates of the 3 outcomes of interest were examined in multivariable logistic regression models. Given that there were few significant bivariate predictors, all possible correlates were tested for inclusion in the models. Model stages included variables related to the child and the type of maltreatment and then parent and family characteristics. The customary level of statistical significance, $p .05$, was used in building the models with one exception. Variables that changed the estimates for key explanatory variables ($\geq 15\%$) were retained in the model even if they did not reach statistical significance. All analyses were conducted using SAS-Callable SUDAAN, version 10.0.1.

Results

Baseline characteristics are shown in Table 1. Just over 50% of each age group is male, approximately one third of each group is white, children in both age categories are usually in their homes with at least one biological parent with 19–36 month olds more likely (11.2%) than 12–18 month olds (8.3%) to be living in out of home care. Children show delays on the Vineland with $> 40.2\%$ of each age group showing severe/moderate delays in Daily Living Skills while 20.1% of 12–18 month olds and 39.7% of 19–36 month olds ($p .005$) show delays in Socialization. About 16% of both age groups have at least one chronic medical condition and about 24% have a history of social services. Caregivers usually report never being married, having at least a high school education and considerable depression, 26.9% in the caregivers of 12–18 month olds and 19.3% in the caregivers of 19–36 month olds. Over 85% of families have one or more major risks on the Family Risk Score.

For 12–18 month olds, 34.6% have problem behaviors on the BITSEA and 20.9% have low social competence. Among children 19–36 months, 10.0% score in the clinical range of the CBCL. No child or family characteristic was related to MH problems in either age group in the unadjusted analyses with the exception of the association of prior welfare services and low social competence (Table 2).

The weighted multivariable analyses (Table 3) show that, compared to white children, black children are significantly less likely to have elevated problem scores on the BITSEA, but children who live in families where the caregiver was never married had 5.64 (95% CI: 2.17, 14.66) times higher odds of elevated problem scores. Children with a child welfare service history have 4.09 (95% CI: 1.65, 10.15) times higher odds of having low social competence as those with no such history. Children who live with a depressed caregiver, have 2.87 (95% CI: 1.05, 7.87) times the odds of having a score above the clinical cutoff on the CBCL compared to those who do not live with a depressed caregiver.

Across all three indicators of MH problems only 2.2% of children with problems receive any MH service for their problems (Table 4). Examining MH service use by problem indicator, we find that 0.7% of 12–18 month olds with a problem on the BITSEA receive a MH

service as do 0.3% of 12–18 month olds with low social competence on the BITSEA. Of children who score in the clinical range on the CBCL, 5.1% receive a service.

Because treatment of infant/toddler MH problems are likely to involve parenting skills training, we also looked at these rates of service use. Across all three indicators of MH problems only 17.2% of parents report some parent skills training with such training reported by 17.5% of parents whose children have an elevated BITSEA problem score, 29.0% of parents whose children have low social competence on the BITSEA and 10.2% of parents whose children score above the clinical cutoff on the CBCL. There are no statistically significant differences in any type of service use for children who do and do not have a MH problem on any measure. Examining any child or parent services use, 16.7% of the 12–36 month olds receive some service—19.2% of children with a MH problem and 16.2% without a problem.

Discussion

Data on the emotional/behavioral health of young children available for the first time in NSCAW II confirms what had been found for older children in NSCAW I;⁵ namely, that the prevalence of MH problems is high irrespective of placement. NSCAW II data also demonstrate that these young children bear the additional risks of delays in adaptive behaviors as measured by the Vineland, high rates of chronic health problems, considerable prior child welfare history, live in families with social stressors and often live with a depressed primary caregiver. For the 12–18 month olds for whom a valid and reliable screening measure of social/emotional problems and low social competence is available, caregivers identified that 34.6% of children screened positive for a social/emotional problem and 20.9% screened low for social competence. Compared to the cohort used to establish the reliability and validity of the BITSEA, these children who have been investigated by child welfare agencies have higher prevalence of problems. In the BITSEA sample, 25.4% of 12–17 month old girls and 24.7% of 12–17 month old boys scored in the positive range for social/emotional problems and 13.4% of 12–17 month old girls and boys had low social competence.²¹ Although the BITSEA is a screening rather than diagnostic instrument, a score over the established cutoff does warrant at least a follow-up evaluation and positive screening scores do have substantial predicative value with respect to later emotional/behavioral diagnoses.⁷ Black children are less likely to have elevated problem scores on the BITSEA. This may be due to black children being over represented in child welfare and the threshold for placement lower resulting in fewer emotional/behavioral problems at system entry.²⁸ Conversely, marital status was related to problem scores and may be a marker for a more stressful home environment often associated with child behavioral problems.^{16,29} Prior child welfare involvement signaling chronicity of exposure to maltreatment and a feature related to placement stability in NSCAW I was related to low social competence.³⁰ Low social competence is potentially as important as problem behaviors since these children are more likely to develop problem behaviors as they age.¹³

When we examine the 19–36 month olds, we find fewer children are identified, 10.0%. This is likely a reflection of the fact that the BITSEA is designed to pick up potential problems, while the clinical cutoff on the CBCL is designed as a cut point for existing problems requiring services. The finding that only 10.0% of children met criteria for a MH problem on the CBCL differs from that of Stahmer et al (2005)¹⁵ but when the subthreshold problems are added, the prevalence is consistent with the prevalence identified in two 18 to 35 month samples and the CBCL 1.5–5 standardization sample.³¹ The differences in the findings compared to Stahmer et al (2005) may be attributable to the inclusion of 4 and 5 year olds in the Stahmer et al. (2005) analysis and to their broader definition of MH problems.¹⁵ It may be that, as children age and behaviors previously attributed to being young are

reconceptualized as problematic, caregivers are more likely to endorse symptoms on rating scales. Correlates of scores in the clinical range on the CBCL include one caregiver characteristic—depression. It is well established that children of depressed caregivers have more MH problems,³² although part of the relationship between children's problems and parental depression may be due to depressed caregivers reporting more problematic behaviors in their children.³³

When we looked at service use for children with a problem on the BITSEA or the CBCL or low social competence on the BITSEA, we found that, overall, only 2.2% of children receive any MH service suggesting that few of these children with multiple challenges receive any MH services including just an assessment. Service use rates improve modestly when we also look at parenting skills training. Overall, counting all services, 19.2% of children with likely MH problems are exposed to some service and a very high proportion are continuing to live with depressed caregivers. This is of concern because a fairly robust set of research findings suggest that early negative experiences such as living with a depressed caregiver are related to a number immediate and longer term developmental challenges such as disorganized attachment and programming of the HPA Axis.^{34–40} Given that potentially efficacious interventions to improve parenting are available, that so few children are receiving services is a missed opportunity to possibly produce positive changes in the lives of these children.^{20,34,35,41} Additionally, given that children who do not score above the established cutoffs receive services at about the same rates as those that do suggests less than optimal targeting of services.

Although these data provide a unique opportunity to examine MH problems in vulnerable, young children, they have limitations. Most of the variables examined, including the outcome variables, are reported by the child's caregiver with no independent corroboration of the reports. Thus, these reports could either over or under estimate MH problems. For children in out-of-home placements, caregivers likely have only short-term knowledge of the child and may have standards different than the child's biological parents. This may account for the high percentages of children in out-of-home care rated as having low social competence. Low social competence may also be reflective of the stress of being removed from the biological home. Also, services use may be under reported for children whose placements are very recent and the measure of services use contains little information on the content of the services. Further, given that the measures used to identify MH problems are not diagnostic they may not identify specific problems that result in referrals for MH treatment. In addition, there is no assurance that if parenting skills training services were provided the training was evidence based or targeted to the children's MH problems. The measures used are largely symptom measures and, although they correlate well with psychiatric diagnoses, they are not diagnostic. Thus, our findings should be thought of as identifying potential MH problems. Finally, the family risk score was developed from caseworkers' records and may under estimate stressors that families face.

Regardless of limitations, these data show a high rate of MH problems in the very young across placement types and, in spite of multiple federal and state policies to support services to address these MH issues and data showing that early intervention has a positive influence on children's development,³⁷ there is surprisingly little service use for these children who come to the attention of their local child welfare agency. If young children already confronting the burden of living in a family suspected of maltreatment are to thrive, it is imperative that they receive needed services for their problems. We speculate that the lack of recognition of need for infant MH interventions may, in part, reflect the lack of trained infant MH professionals. Nevertheless there are data to suggest that evidence-based early intervention services potentially can improve MH outcomes and this underscores the need for more aggressive efforts to identify and treat vulnerable young children who are

investigated by child welfare agencies. At the very least, we have the obligation to insure that adequate services to identify and treat the very young are available by training additional professionals to address MH problems in preschool children,³⁸ include in routine screening, assessments for MH problems³⁶ and put in place targeted, efficacious prevention programs for high risk families.^{42–43} The lack of services received by these young, multi-challenged children is clearly both a services system and social policy failure and should serve as a call to action.

Acknowledgments

This study was supported by National Institute of Mental Health (NIMH) award P30-MH074678 (J. L.).

Data is from the National Survey of Child and Adolescent Well-Being, developed under contract with the Administration on Children, Youth, and Families (ACYF), U.S. Department of Health and Human Services (DHHS); and the National Data Archive on Child Abuse and Neglect. The findings/conclusions are those of the authors and do not necessarily reflect the opinions of the NIMH, nor indicate endorsement of its content by ACYF/DHHS.

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Table 1

Child/family characteristics and mental health outcomes in the National Survey of Child and Adolescent Well-Being II

Characteristics	12–18 months (n=620)	19–36 months (n=497)	Total (n=1117)
	%(se)	%(se)	%(se)
Child:			
Gender: Male	52.8(6.8)	58.4(3.5)	56.9(3.0)
Female	47.2(6.8)	41.6(3.5)	43.1(3.0)
Race: Black	34.5(8.2)	21.7(3.4)	25.3(3.9)
White	31.4(6.5)	39.9(6.0)	37.5(5.3)
Hispanic	22.4(5.4)	35.1(5.6)	31.6(4.7)
Other	11.6(6.1)	3.3(1.1)	5.6(1.8)
Placement: In home, no welfare services	71.8(5.1)	64.3(3.4)	66.4(3.3)
In home, welfare services	19.8(4.0)	24.5(3.3)	23.2(3.1)
Out of home	8.3(1.6)	11.2(1.2)	10.4(1.0)
Vineland: Daily Living: Severe/Moderate	40.2(7.0)	43.1(4.9)	42.3(4.1)
Normal	59.8(7.0)	56.9(4.9)	57.7(4.1)
Socialization: Severe/Moderate	20.1(7.5) *	39.7(5.0)	34.2(4.1)
Normal	79.9(7.5)	60.3(5.0)	65.8(4.1)
Chronic health condition	16.3(4.0)	15.7(3.2)	15.9(2.4)
Welfare services history	23.1(5.1)	24.0(3.9)	23.7(2.8)
Family:			
Risk Score: 0	11.0(4.0)	14.7(3.0)	13.6(2.3)
1+	89.0(4.0)	85.3(3.0)	86.4(2.3)
Marital status: Married	21.9(5.7)	31.3(4.3)	28.7(4.0)
Separated	4.9(2.0)	13.4(3.3)	11.0(2.5)
Divorced	10.4(3.5)	10.2(2.5)	10.3(2.0)
Widowed	1.0(0.7)	2.3(1.3)	2.0(0.9)
Never married	61.7(7.2)	42.8(4.1)	48.0(3.9)
Education: Less than high school	22.9(5.0)	27.6(4.2)	26.3(3.5)
High school	59.3(6.0)	44.9(4.3)	48.9(3.7)
More than high school	17.7(3.3)	27.5(2.7)	24.8(2.1)
Depressed caregiver	26.9(6.3)	19.3(4.3)	21.4(3.9)
Outcomes:			
BITSEA problem: No problem	65.4(6.4)	NA	
Possible problem	34.6(6.4)	NA	
BITSEA competence: No problem	79.1(4.9)	NA	
Possible problem	20.9(4.9)	NA	
CBCL: Total >=64		10.0(2.0)	
<64		90.0(2.0)	

Characteristics	12–18 months (n=620)	19–36 months (n=497)	Total (n=1117)
	%(se)	%(se)	%(se)
Internalizing >=64		6.7(1.4)	
<64		93.3(1.4)	
Externalizing >=64		8.9(1.6)	
<64		91.1(1.6)	

Note: BITSEA = Brief Infant Toddler Social and Emotional Assessment; CBCL=Child Behavior Checklist.

*
= p = 0.05

Table 2

Child and family variables related to mental health problems in the National Survey of Child and Adolescent Well-Being II

	BITSEA Problem Score (yes)	BITSEA Low Social Competence (yes)	CBCL 64
	%(se)	%(se)	%(se)
Child:			
Gender: Male	36.5(9.9)	22.9(6.1)	11.0(3.0)
Female	32.5(7.7)	18.7(7.5)	8.7(3.1)
Race: Black	18.1(6.9)	15.9(7.3)	8.8(2.6)
White	40.3(9.3)	27.4(7.9)	9.5(3.4)
Hispanic	31.5(7.7)	23.4(8.0)	11.2(4.2)
Other	74.5(17.0)	13.9(11.7)	11.8(7.8)
Placement: In home, no welfare services	34.9(8.7)	17.7(6.6)	10.4(3.0)
In home, welfare services	37.8(4.5)	25.0(3.7)	7.8(2.3)
Out of home	24.6(5.4)	39.0(7.8)	13.1(3.7)
Vineland: Daily Living: Severe/Moderate	34.5(9.8)	25.7(9.4)	14.3(4.1)
Normal	34.6(8.5)	17.7(4.7)	6.8(1.8)
Socialization: Severe/Moderate	33.0(15.1)	35.3(18.7)	10.1(2.7)
Normal	35.0(7.2)	17.3(4.1)	10.0(2.9)
Chronic health condition: Yes	47.7(13.9)	39.7(13.3)	16.8(5.4)
No	32.0(7.1)	17.3(4.8)	8.8(2.4)
Welfare services history: Yes	47.7(11.7)	40.8(9.2) *	11.4(3.7)
No	29.7(7.7)	14.1(3.8)	12.4(3.3)
Family:			
Risk Score: 0	14.2(9.5)	5.9(3.6)	19.7(8.1)
1+	35.5(7.9)	22.3(5.5)	10.4(2.3)
Depressed caregiver: Yes	56.1(14.5)	20.5(11.3)	18.0(6.3)
No	26.7(6.3)	21.1(5.0)	8.2(1.8)
Marital status: Married	22.0(6.6)	21.7(7.0)	13.3(3.9)
Separated	18.3(8.9)	22.3(10.7)	14.0(9.3)
Divorced	34.1(14.1)	15.8(5.9)	2.4(1.2)
Widowed	18.8(18.3)	16.7(17.2)	22.4(14.1)
Never married	40.7(9.6)	21.5(7.1)	7.6(2.4)
Education: Less than high school	26.9(8.2)	27.2(8.8)	5.6(2.6)
High school	38.0(9.7)	15.4(5.7)	14.0(3.8)
More than high school	33.2(8.6)	31.4(10.3)	8.0(3.5)

Note: BITSEA = Brief Infant Toddler Social and Emotional Assessment; CBCL = Child Behavior Checklist.

* = p 0.05

Table 3

Multivariate models predicting children's mental health problems in the National Survey of Child and Adolescent Well-Being II

	BITSEA Problem (n=615)		BITSEA Low Social Competence (n=479)		CBCL 64 (n=419)	
	OR	95% CI	OR	95% CI	OR	95% CI
Intercept	0.23	0.10 0.49	0.05	0.02 0.18	0.21	0.08 0.55
Child:						
Race:						
Black	0.14	0.04 0.48**				
White	1.00	1.00 1.00				
Hispanic	0.52	0.16 1.65				
Other	4.41	0.68 28.60				
Chronic health condition: Yes	3.57	0.97 13.06				
No	1.00	1.00 1.00				
Welfare services history: Yes	4.09	1.65 10.15**				
No	1.00	1.00 1.00				
Family:						
Risk Score: 0	1.00	1.00 1.00			1.00	1.00 1.00
1+	3.43	0.89 13.28			0.40	0.13 1.26
Depressed caregiver: Yes					2.87	1.05 7.87*
No					1.00	1.00 1.00
Marital status:						
Married	1.00	1.00 1.00				
Sep/Div/Wid	1.81	0.72 4.58				
Never married	5.64	2.17 14.66***				

Note: BITSEA = Brief Infant Toddler Social and Emotional Assessment; CBCL = Child Behavior Checklist.

* = p 0.05

** = p 0.01

*** = p 0.001

Table 4

Mental health services use and parenting skills training

	BITSEA Problem		BITSEA Low Social Competence		CBCL		64; n=74		CBCL < 64; n=420		Total Sample			
											Overall Use		Use by Problem	
	Yes: n=201	No: n=417	Yes: n=194	No: n=423							n=1117		Yes n=404	No n=709
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Specialty Mental Health Services	3(0.2)	3(1.9)	2(0.1)	4(1.7)	4(2.4)	8(2.4)	18(2.1)	8(1.0)	10(2.4)					
All Mental Health Services	8(0.7)	7(2.5)	4(0.3)	11(2.3)	8(5.1)	16(3.9)	39(3.4)	17(2.2)	22(3.7)					
Any parenting skills training	52(17.5)	77(15.5)	37(29.0)	92(12.8)	12(10.2)	54(13.5)	195(15.1)	85(17.2)	110(13.2)					
Any child/parent service	56(17.9)	81(15.9)	40(29.3)	97(13.2)	20(15.3)	68(17.1)	225(16.7)	98(19.2)	127(16.2)					

Note: No statistically significant difference in service use for problem/no problem on any measure or overall.

BITSEA = Brief Infant Toddler Social and Emotional Assessment; CBCL = Child Behavior Checklist.