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## Health Status and Type of Out-of-Home Placement: Informal Kinship Care in an Investigated Sample

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### Abstract

**Objective**—To assess the sociodemographic, health, and mental health of children in different types of out-of-home placements after investigation by child welfare agencies; to determine whether there are systematic differences in the children and their caregivers by type of out-of-home placements; and to provide the first description of these characteristics in a nationally representative sample for children in informal kinship care after child welfare involvement.

**Methods**—Using data from the National Survey of Child and Adolescent Well-being (NSCAWII), we compared children (0–17.5 years) in formal nonkinship foster care, formal kinship foster care, and informal kinship care shortly after a child welfare investigation. All analyses were weighted to reflect the sampling design.

**Results**—Children in informal kinship care are at comparable risk of having chronic health conditions and poorer health but are less likely to receive school-based services. All children in kinship care (formal and informal) are less likely to be reported to have mental health problems and are more likely to live with older caregivers whose educational level is low and whose health is reportedly poorer.

**Conclusions**—Although children in kinship care have health problems similar to children in nonkinship foster care, they are likely to live in families with fewer economic and educational resources. This mismatch between need and access has implications for the long-term well-being of the children who are living in informal kinship arrangements without system-level support of formal foster care.

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## Keywords

foster children; health; insurance; kinship care; mental health

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Children Investigated by child welfare agencies have higher rates of chronic health conditions (CHC) than children in the general population,<sup>1</sup> and those in formal foster care have been shown to have particularly high rates of health and mental health (MH) problems.<sup>2</sup> However, there is little information about children who are investigated by child welfare agencies but who subsequently live in informal kinship arrangements. Out-of-home placements include foster care, either with kin or nonkin families, informal kinship care, and, far less frequently, institutional care. Nationally, over 70% of out-of-home residency is with kin, although in the majority of cases, this is not the result of a child welfare investigation.<sup>3</sup> However, the number of children placed with kin after an investigation is growing as a result of public policies designed to keep children attached to their own families.<sup>4-6</sup> When the decision is made to change a child's residence, some children whose families were reported to child welfare are placed in formal kinship foster care arrangements in which the caregivers are relatives who qualify as foster parents. These children usually remain in state custody and receive the same package of benefits and services as children in nonrelative foster care. The majority of children who reside in out-of-home settings, however, reside in informal kinship arrangements. Informal kinship care may occur through family arrangements or actual placement and is often unsupported in terms of financial subsidies, supervision, and access to services.

Literature comparing children placed with nonkin foster caregivers to children in kinship care is relatively sparse and focuses mainly on those in formal kinship foster care. It shows that formal kinship foster care frequently involves placement with caregivers who are older, less educated, and in poorer health, and who have more limited economic circumstances than nonkin caregivers.<sup>4,7</sup> Although there is considerable variation by state, formal kinship placement is associated with better behavioral development, MH functioning, and placement stability than nonkin placements,<sup>8</sup> but those in traditional foster care may experience better placement permanency and services for their health, MH, and developmental needs.<sup>8,9</sup> Looking over the long term, a separate study suggests that adult MH may not be better for those who were in kinship care compared to those who were in nonkin arrangements.<sup>10</sup> Likelihood of juvenile justice system involvement is reportedly lower for those children in kinship foster care.<sup>11</sup> Another study found few differences between children in kinship versus nonkinship foster care with regard to physical health.<sup>12</sup> We were unable to locate studies that have separately examined the health and MH of children in informal kinship care after a child welfare investigation.

Within the child welfare system, there has been considerable public policy emphasis on placing children with kin whenever possible, and more children live with kin informally than as a result of foster care placement.<sup>13</sup> However, the care of children who informally reside with kin after an allegation of neglect or maltreatment is rarely monitored, and therefore, little is known about it. Few studies have examined whether health or MH differs

significantly across all types of out-of-home placements or have compared children in informal kinship care to those in formal kinship or nonkinship foster care.

We were able to identify only 3 population-based samples that included both formal and informal kinship care. Ehrle and Geen<sup>13</sup> used the 1997 National Study of American Families to assess the child, parent, and caregivers of children in formal nonkinship foster care, in formal kinship foster care, and children initially placed in informal kinship care, but the study included no child health information and was not restricted to children who had been the subject of a child welfare report. A second study examined baseline characteristics of children in National Survey of Child and Adolescent Well-being (NSCAW) I and followed outcomes of children in court-assigned formal placements in kin or nonkinship care, but did not compare those in formal versus informal kinship care.<sup>7</sup> It demonstrated that kinship caregivers received fewer support services than nonkinship foster caregivers. A third study, also using NSCAW I data, reviewed medical records of initial assessments and found no differences in weight, diagnoses, types of medical diagnoses, or provisional developmental diagnoses by placement type, but reported that children with >3 diagnoses were more likely to be placed with kin than to be in foster care or remain at home.<sup>14</sup> Although it included children in informal kinship care, there was no differentiation by type of kinship placement.

The purposes of our study were to: 1) assess the sociodemographic, health, and MH status of children living out of their homes after a child welfare report in a national sample of children investigated by child welfare agencies; 2) determine whether there are systematic differences in the children and their caregivers by type of out-of-home residency after the initial investigation by child welfare; and 3) provide the first description of these characteristics for the subgroup of children in informal kinship care.

## Methods

### Design and Analytic Sample

Data came from the second National Survey of Child and Adolescent Well-being (NSCAW-II), a longitudinal study of 5872 youth (aged 0–17.5 years) referred to US child welfare agencies whose investigation of potential maltreatment was completed during a 15-month period (February 2008 to April 2009). It excluded agencies in 8 states in which law required first contact of a caregiver by an agency rather than study staff.<sup>15</sup> Initial interviews were conducted within approximately 4 months of completed child welfare investigations. NSCAW II, like NSCAW I, used a national probability sampling strategy to select primary sampling units (PSUs), typically counties, from which a sample was drawn. Seventy-one of the 92 original PSUs in NSCAW I were eligible and agreed to participate, and 10 additional PSUs were added to replace nonparticipating PSUs. Only children who began living in foster care or formal or informal kinship care after the child welfare investigation were examined in these analyses. In an effort to make sure that we were not capturing children already living out of home who were subsequently reported to child welfare, we restricted analyses to those children who resided in the current out-of-home setting after the contact date with child welfare subsequent to the report. All the children in the sample were children for whom there was a formal child welfare investigation (n = 1608).

## Survey Design and Assessment Procedures

Data came from baseline interviews conducted between March 2008 and September 2009 with caregivers and children (< 11 years). Setting was recorded by child welfare workers. All NSCAW II procedures were approved by the Research Triangle Institute's institutional review board, and all analytic work on deidentified data was approved by the Rady Children's Hospital institutional review board.

## Measures

**Setting**—The setting in which the child lived at the time of the initial interview was categorized as nonkinship foster care, formal kinship foster care, and informal kinship care. Formal kinship foster care is generally distinguished from informal kinship care because the former is usually licensed and/or supported, both financially and through services, in a manner similar to foster care with nonkinship families. Informal kinship care generally lacks those licensures and supports. The relationship of kinship caregivers to the children among those in formal and informal kinship care was also examined.

**Sociodemographic Variables**—Sociodemographic variables included child's age, sex, and race, as well as receipt of special services at school and caregiver status with respect to age, marital status, education, and health. Age of caregivers was grouped as follows: < 24 years; 25 to 34 years; 35 to 44 years; 45 to 54 years; and 55+ years. Education was categorized as less than high school graduate, high school graduate, or more than high school education. Current caregiver health was self-rated as excellent, very good, good, fair, or poor and dichotomized as excellent, very good versus good, fair, poor. This categorization is widely used because most people categorize health as excellent or very good, with good, fair, and poor being seen as much less satisfactory, and because of how social desirability affects the way people answer such questions.<sup>16,17</sup> We also recorded whether or not the caregiver was depressed, as measured in the data set by the Composite International Diagnostic Interview Short Form–Depression Questionnaire Modules.<sup>18,19</sup> Insurance was classified as any insurance or no insurance.

**Health Variables**—Health variables included overall health, presence of a CHC, and MH.

**Overall Assessment of Health**—Caregivers were asked to rate the child's overall health using the standard question "How would you rate [the child's] overall health: excellent, very good, good, fair, or poor?" Answers were dichotomized to excellent, very good versus good, fair, poor.

**Presence of CHC**—We used 2 approaches to measure CHC: a noncategorical or generic measure based on consequences of conditions for the children's lives, and one based on diagnostic information. The methods for these determinations are extensively described in a previous publication<sup>1</sup> and are summarized briefly here.

**Noncategorical Measure**—Parts of the 16-item Questionnaire for Identifying Children With Chronic Conditions–Revised (QuICCC-R)<sup>20,21</sup> were included in the caregiver's interview. The QuICCC-R uses statements about condition consequences and for most items

probes about the cause and duration of the consequences that assess chronicity. NSCAW II omitted some items and probes. Therefore, data were coded 2 ways, conservatively or restrictively, to include only chronic consequences, and liberally or more inclusively, to include consequences of unknown duration. Any child with 1 positive response to the included QuICCC-R questions was considered to have a CHC.<sup>1</sup>

**Diagnostic List of Medical Conditions**—The data set included a list of diagnoses of uncertain chronicity or ones subject to respondent interpretation, making it difficult to determine whether an identified child actually had a CHC.<sup>1</sup> Therefore, we used clinical judgment of 2 pediatricians and epidemiologic criteria to construct a conservative or restrictive and a liberal or inclusive variable. Given the available data, neither list could be weighted for severity.<sup>1</sup>

**Child MH Problems**—The Brief Infant Toddler Social and Emotional Assessment (BITSEA), a 42-item screening tool designed to identify children at risk for social-emotional problems (BITSEA-P) and low social competence (BITSEA-C),<sup>22</sup> was administered to caregivers of children aged <18 months. It has good internal consistency ( $\alpha = 0.79$  BITSEA-P,  $\alpha = 0.65$  BITSEA-C) and interrater reliability (ICC = 0.68 BITSEA-P, ICC = 0.61 BITSEA-C) and predictive validity.<sup>22</sup> BITSEA scores at 12 to 36 months have been shown to predict 67.9% of psychiatric disorders on the Diagnostic Interview Schedule for Children in early elementary school.<sup>23</sup> Caregivers of children aged >36 months completed the Child Behavior Checklist, and children aged 11 years completed the Youth Self Report. T scores of 64 were considered a positive indicator of child MH problems.

## Analyses

Analyses utilized bivariate statistics to summarize the variables by the setting in which the child lived. Analysis weights were constructed in stages corresponding to the stages of the sample design, accounting for the probability of PSUs and of each child's selection, given the child's county of residence. Weights were further adjusted for population estimates, small deviations from the original plan that occurred during sampling, nonresponse patterns, and replacement PSUs. All analyses, unless otherwise noted, utilize weighting. All statistics (eg, means, percentages) generated using weights can be generalized to the US child welfare population, particularly to children placed in out-of-home care after an investigation. Analyses were conducted by SAS-Callable SUDAAN, version 11.<sup>24</sup>

## Results

Baseline characteristics for the children and their caregivers are shown in Table 1. Overall, 32.8% of children in out-of-home care resided in informal kinship care settings, 19.3% were in formal kinship care, and 47.8% were in nonkinship foster care. There were no significant differences in the age, sex, or insurance distribution of children across placement type. When the racial distribution was examined, there was a smaller proportion of white children in formal kinship care than in other types of placements and a larger proportion of black and smaller proportion of Hispanic children in informal kinship care compared to other types of arrangements ( $P < .001$ ).

Overall, one fifth of the children received special services in school, but only 13% of those living in informal kinship care received those services. This is statistically significantly different from those in nonkinship foster care ( $P = .024$ ), but not from those in kinship foster care. Kinship caregivers tended to be older (with a higher proportion 45 years old) and tended to have lower family income than nonkinship foster caregivers, and those who were informal kinship caregivers were significantly more likely to report poorer health than all kinship foster or nonkinship foster caregivers ( $P < .024$ ,  $P < .008$ , respectively). Rates of education and caregiver depression did not differ significantly when 2 group comparisons were done. The relationship of kinship caregivers to the child across formal and informal arrangements did not differ (Table 2).

Table 3 shows the proportion of children in each setting by health measures available in the data set. Only one of the physical health measures shows any differences, but there is a consistently lower proportion of children with MH symptoms among those in kinship care, with the lowest proportion among those in formal kinship care and the highest among those placed in nonkinship foster care.

## Discussion

To our knowledge, this study is the first to specifically examine the health and MH of children in informal kinship care residence after a report to and investigation by child welfare and to compare these children to other children placed outside their families. Because of the inherent fluidity and informality of many kinship arrangements, and because even children placed after a report to and investigation by child welfare are rarely tracked, this data set provides a unique opportunity to look at children in informal kinship care. Several findings are striking. First, the highest rates of children who screen positive for MH problems are among those in formal nonkinship foster care. Because these interviews were conducted an average of 4 months after investigation, it is unclear whether this represents a true difference in baseline MH status, reactions of the children to the emotional stress accompanying out-of-home placement in an unfamiliar environment, or previously identified differences on the part of the caregivers in their reporting patterns.<sup>25,26</sup> Presumably kinship placements involve some prior relationship with the child as well as some cultural consistency. This is important in light of similar findings by Sakai et al,<sup>7</sup> who reported that children in kinship care fared better in behavioral health and MH over a 3-year follow-up, although there was a higher risk of adolescent substance use and pregnancy in those remaining in kinship care. The root of these differences remains unclear, but this appears to be a finding that is consistent in the literature.

Second, it is impressive that rates of CHC measured 4 different ways are consistently high across settings and that only 1 measure of health status showed even a small difference across out-of-home settings. In fact, for all methods of assessment, rates of poor health were higher for these children placed out of home than the high proportions we reported previously for the entire NSCAW II sample, more than 80% of whom remain at home.<sup>1</sup>

Finally, informal kin caregivers were more likely to be older, have fewer economic resources, and be in poorer health compared to formal kin or nonkinship foster caregivers.

Further, our findings suggest that children in informal kin settings may be less likely to utilize school services than those in other types of out-of-home care. Although it was not significantly different across the 3 out-of-home settings, it should also be noted that as many as 5.8% of children in informal kinship care have no health insurance. These characteristics place informal kinship caregivers at a distinct disadvantage when parenting children with CHC, and they may affect caregivers' ability to obtain needed care for the children. Caregivers in formal foster care arrangements receive financial and social support from the child welfare system; however, the 32.8% of children in informal kinship arrangements in this weighted sample do not benefit consistently from such resources. Informal arrangements cost child welfare systems less because they are not usually subsidized or provided with services, but if child well-being is the goal, this may be a short-term saving with substantial long-term costs.

Secondary analyses always impose limitations. Ideally, we would have included the entire set of QuICCC-R questions, but they were not available to us. It would also have been desirable to know what proportion of the children living in informal kinship arrangements after investigation were formally placed there by the child welfare agencies and what proportion were moved there by family members without formal placement after the investigation was initiated. However, we know that all were placed there after the child welfare agency's first contact that began the investigation process. Because there is variability across jurisdictions in how much time has elapsed since the report was filed and how long the investigation may be, we do not know exactly what may have prompted voluntary or involuntary care of children to informal kinship care. In addition, it would have been optimal to know the level of prior contact between kin caregivers and the children under their care and to have had measures of children's MH before change in living arrangements. We also must consider the potential biases that may occur from the fact that foster parents may think that they have rescued a child and therefore be prone to overreport MH problems, while kin may minimize symptoms because they are used to a child's behavior or fear removal of a child from their care. Further, our measures of health and MH of children were general, and although they provided important information with a considerable amount of predictive validity, they may not reflect other aspects of children's functioning, such as educational progress, social skills, or daily functioning. Finally, it is important to note that many families arrange for children to live with kin without the pressure of a child welfare investigation, and it is critical to stress that our findings apply only to those children for whom the child welfare investigation prompted either formal or informal transfer of care to informal kinship caregivers.

Nevertheless, this report is the first of its kind to describe the baseline characteristics of children in informal kinship care after a report has been filed with the local child welfare agency. The health and MH of this group of children are rarely assessed in a systematic way, and this study provides an important window into the needs and potential service deficits of this vulnerable population.

## Conclusion

Informal kinship care is a growing trend among parents who experience challenges caring for their children and one that warrants careful in-depth examination. Given the needs of informal kin caregivers themselves, child welfare agencies should consider extending the same services and benefits to them that are now generally available only for formal caregivers, and pediatricians should be especially alert to the potential high risk of this population, which is already experiencing considerable health and MH symptoms.

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**What'S New**

Compared with children in formal foster care with either non-kin or kin, children in informal kinship care are at comparable risk of having chronic health conditions and poorer overall health, are less likely to have received school services, and are less likely to be reported to have mental health problems.

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**Table 1**

Sample Characteristics by Type of Out-of-Home Placement (n = 1608)

| Characteristic               | Total (100%) | Foster (47.8%) | Formal Kin (19.3%) | Informal Kin (32.8%) |
|------------------------------|--------------|----------------|--------------------|----------------------|
|                              | % (SE)       | % (SE)         | % (SE)             | % (SE)               |
| Child age                    |              |                |                    |                      |
| 0–5 y                        | 58.0 (3.0)   | 56.0 (5.4)     | 61.3 (6.8)         | 59.0 (6.5)           |
| 6–10 y                       | 20.2 (2.7)   | 23.4 (4.3)     | 14.5 (3.0)         | 18.9 (4.9)           |
| 11 y                         | 21.8 (2.9)   | 20.6 (3.3)     | 24.2 (6.3)         | 22.1 (6.5)           |
| Child sex                    |              |                |                    |                      |
| Male                         | 50.2 (2.7)   | 48.3 (4.1)     | 58.7 (5.7)         | 47.9 (5.9)           |
| Female                       | 49.8 (2.7)   | 51.7 (4.1)     | 41.3 (5.7)         | 52.1 (5.9)           |
| Child race**                 |              |                |                    |                      |
| Black                        | 26.3 (3.7)   | 22.3 (3.2)     | 26.2 (5.7)         | 32.2 (6.2)           |
| White                        | 45.1 (5.3)   | 49.6 (5.9)     | 27.6 (4.8)         | 48.8 (7.9)           |
| Hispanic                     | 23.6 (3.6)   | 21.5 (3.7)     | 38.5 (6.8)         | 17.8 (5.8)           |
| Other                        | 5.0 (1.1)    | 6.6 (1.7)      | 7.6 (2.7)          | 1.2 (0.6)            |
| Insurance type               |              |                |                    |                      |
| Any insurance                | 97.5 (.9)    | 98.9 (.4)      | 99.2 (.4)          | 94.2 (2.5)           |
| No insurance                 | 2.5 (.9)     | 1.1 (.4)       | 0.8 (.4)           | 5.8 (2.5)            |
| School services              |              |                |                    |                      |
| No                           | 79.6 (2.5)   | 75.2 (3.9)     | 78.0 (7.0)         | 87.0 (3.5)           |
| Yes                          | 20.4 (2.5)   | 24.8 (3.9)     | 22.0 (7.0)         | 13.0 (3.5)           |
| Current caregiver age*       |              |                |                    |                      |
| 24 y                         | 2.1 (0.7)    | 0.9 (0.4)      | 3.7 (1.4)          | 2.8 (2.0)            |
| 25–34 y                      | 18.2 (2.9)   | 18.7 (4.2)     | 23.2 (7.0)         | 14.4 (5.1)           |
| 35–44 y                      | 20.9 (2.3)   | 25.6 (3.1)     | 15.3 (2.8)         | 17.3 (3.8)           |
| 45–54 y                      | 33.4 (3.1)   | 34.0 (3.3)     | 33.1 (5.7)         | 32.7 (5.8)           |
| 55 y                         | 25.5 (2.9)   | 20.8 (4.0)     | 24.6 (4.0)         | 32.8 (5.6)           |
| Current caregiver education* |              |                |                    |                      |
| Less than high school        | 12.0 (2.1)   | 6.9 (1.6)      | 20.9 (5.3)         | 14.3 (4.1)           |
| High school graduate         | 49.3 (4.0)   | 46.8 (4.9)     | 42.9 (6.6)         | 56.8 (7.6)           |
| More than high school        | 38.7 (3.6)   | 46.3 (4.7)     | 36.2 (5.8)         | 28.9 (7.7)           |
| Caregiver overall health*    |              |                |                    |                      |
| Good/fair/poor               | 45.2 (2.9)   | 39.0 (3.7)     | 39.9 (5.2)         | 57.5 (5.5)           |
| Excellent/very good          | 54.8 (2.9)   | 61.0 (3.7)     | 60.1 (5.2)         | 42.5 (5.5)           |
| Income*                      |              |                |                    |                      |
| 0–9K                         | 6.2 (1.4)    | 3.5 (1.2)      | 5.7 (1.9)          | 10.5 (3.8)           |
| 10K–19K                      | 9.4 (1.8)    | 4.3 (0.9)      | 13.6 (3.0)         | 14.4 (4.5)           |
| 20K–29K                      | 15.1 (3.5)   | 11.0 (2.5)     | 17.3 (4.6)         | 19.7 (7.5)           |
| 30K–39K                      | 13.3 (3.0)   | 13.3 (4.7)     | 18.4 (7.3)         | 10.3 (3.6)           |
| 40K                          | 56.0 (4.4)   | 68.0 (4.5)     | 45.0 (8.5)         | 45.2 (8.3)           |

| Characteristic                     | Total (100%) | Foster (47.8%) | Formal Kin (19.3%) | Informal Kin (32.8%) |
|------------------------------------|--------------|----------------|--------------------|----------------------|
|                                    | % (SE)       | % (SE)         | % (SE)             | % (SE)               |
| Depressed caregiver at study entry |              |                |                    |                      |
| No                                 | 93.2 (1.4)   | 96.1 (1.1)     | 91.1 (2.8)         | 90.3 (3.8)           |
| Yes                                | 6.8 (1.4)    | 3.9 (1.1)      | 8.9 (2.8)          | 9.7 (3.8)            |
| Marital status                     |              |                |                    |                      |
| Married                            | 61.5 (3.8)   | 68.6 (4.4)     | 51.1 (7.1)         | 57.3 (5.9)           |
| Separated/divorced/widowed         | 27.2 (3.6)   | 19.8 (4.0)     | 33.1 (6.4)         | 34.4 (6.3)           |
| Never married                      | 11.3 (1.5)   | 11.6 (2.2)     | 15.8 (2.9)         | 8.3 (1.9)            |

\*  $P < .05$ .

\*\*  $P < .001$ .

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**Table 2**

Caregiver Relationship of Those in Kinship Care (n = 658)

| Relationship  | Total      | Formal Kin | Informal Kin |
|---------------|------------|------------|--------------|
|               | % (SE)     | % (SE)     | % (SE)       |
| Aunt or uncle | 29.9 (4.0) | 35.1 (5.5) | 26.8 (5.4)   |
| Grandparent   | 58.7 (4.4) | 48.9 (6.9) | 64.4 (5.2)   |
| Other         | 11.5 (3.4) | 16.0 (6.7) | 8.8 (3.3)    |

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**Table 3**

## Child Health and Mental Health Sample Characteristics by Placement

| Characteristics                     | Total (100%) | Foster (47.8%) | Formal Kin (19.3%) | Informal Kin (32.8%) |
|-------------------------------------|--------------|----------------|--------------------|----------------------|
|                                     | % (SE)       | % (SE)         | % (SE)             | % (SE)               |
| Child overall health                |              |                |                    |                      |
| Good/fair/poor                      | 28.5 (2.7)   | 31.3 (3.8)     | 31.5 (5.4)         | 22.5 (6.1)           |
| Excellent/very good                 | 71.5 (2.7)   | 68.7 (3.8)     | 68.5 (5.4)         | 77.5 (6.1)           |
| Child up to date with immunizations | 96.9 (0.8)   | 96.0 (1.2)     | 98.2 (0.7)         | 97.2 (1.8)           |
| QuICCC-R                            |              |                |                    |                      |
| Conservative                        | 30.3 (3.5)   | 33.9 (3.9)     | 31.2 (7.7)         | 24.7 (6.4)           |
| Liberal                             | 39.1 (3.2)   | 45.7 (3.5)     | 38.0 (7.5)         | 30.1 (5.8)           |
| Diagnostic list                     |              |                |                    |                      |
| Conservative*                       | 29.8 (2.5)   | 33.5 (3.9)     | 16.3 (3.4)         | 32.4 (5.8)           |
| Liberal                             | 51.0 (3.1)   | 55.7 (4.3)     | 42.9 (5.7)         | 49.0 (6.6)           |
| Mental health problems              |              |                |                    |                      |
| BITSEA problem/competence           | 51.6 (9.9)   | 58.1 (13.0)    | 68.1 (13.5)        | 26.2 (15.0)          |
| CBCL, total 64*                     | 26.1 (2.8)   | 33.3 (4.0)     | 15.2 (4.0)         | 23.2 (5.4)           |
| BITSEA or CBCL*                     | 28.1 (2.6)   | 35.8 (3.7)     | 17.7 (4.0)         | 23.8 (5.2)           |

QuICCC-R = Questionnaire for Identifying Children With Chronic Conditions; BITSEA = Brief Infant and Toddler Social and Emotional Assessment; CBCL = Child Behavior Checklist.

\*  $P < .05$ .