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The Physical, Developmental, and Mental Health Needs of Young Children in Child Welfare by Initial Placement Type

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Abstract

The American Academy of Pediatrics recommends comprehensive assessments for children entering foster care. These children may be placed with biological parents, kin, or in nonrelative foster care. It is not known whether health-related needs differ by placement. Chart abstractions were conducted of child welfare and medical records of 1542 children, ages 3 months to 5 years 11 months, admitted to San Diego's sole emergency shelter/receiving facility from April 1, 1998, through June 30, 1999, for investigation of alleged maltreatment. Children were discharged to three placement types: biological parents (28.5%), kinship caregivers (28.4%), or nonrelative foster parents (43.1%). Overall, 86.7% of children studied demonstrated physical, developmental, or mental health needs, with more than half displaying two or more problems. More than half of the children had a "Suspect" score on the Denver-II; 70.3% of children with "Suspect" scores were found to have delay on a development evaluation. Almost one tenth of the sample were diagnosed with one or more mental health conditions. Few differences were found for physical, developmental, or mental health concerns by placement. Results suggest that young children placed with biological parents or in kinship care have similar needs to those of children placed with foster parents. This study confirms the importance of comprehensive assessments for young children removed from their homes, regardless of placement. It also illustrates a need for standardized assessment criteria, particularly for developmental and mental health status, and for collaborative care models for all young children entering the child welfare system, regardless of their placement following investigation.

Index terms

foster care; child welfare; developmental delay; mental health; physical health

The estimated 826,000 children currently served by the child welfare/child protective services system¹ (hereafter termed child welfare) are more susceptible to poor health outcomes than any other subpopulation of youth in the United States. These children are removed from their homes when parents are unable to care for them due to prenatal drug/alcohol exposure, abuse, neglect, and/or violence. These background risk factors predispose these children to a myriad of physical, developmental, and mental health problems. Infants and toddlers, who are dependent on the care of others during a critical phase of brain development,^{2–5} are especially vulnerable to both the experience and consequences of maltreatment^{6–9} and are the most rapidly expanding age group entering child welfare.^{3,10} Overall, the largest age group in child welfare (30%) is composed of children younger than 5 years of age.¹ Out-of-home placement can compound these problems if services are not provided effectively.¹¹

Recent federal amendments to the Child Abuse Prevention and Treatment Act (CAPTA) in 2003 recommend that states enhance collaboration among public health agencies, child welfare, and community programs to address the comprehensive health and developmental needs of young children who are victims of alleged abuse and neglect and are active to the child welfare system (<http://www.acf.hhs.gov/programs/cb/programs/capta.htm>). To date, most research examining the needs of children in child welfare has focused on children placed in out-of-home care with nonrelative caregivers. Studies assessing the physical health of these children suggest that nearly all (87 to 95%) enter out-of-home care with at least one physical health problem and that a majority (50 to 60%) enter with multiple physical needs.^{12,13} Studies indicate that developmental delays are also extremely common among children younger than the age of 5 years in out-of-home care, with estimated rates of children exhibiting some developmental delay ranging from 13 to 62%,^{11–21} compared with the prevalence of delay in the general pediatric population (4–10%).^{22,23} Mental health problems among children in out-of-home care are similarly pervasive, having been detected in 48 to 80% of these children, compared with the 10% community-based rate²⁴; these problems include high rates of comorbidity (up to 50%) with other psychological disturbances.^{25–31} Research suggests that there are worse child welfare outcomes for children with health or developmental problems.^{18,32}

Although evidence pointing to serious and complex health-related needs among children in nonrelative foster care is extensive, limited information exists regarding the health status of children who are placed in other care settings, i.e., returned to the care of biological parents or placed in kinship care with extended family members. Further investigation into the physical, developmental, and mental health needs of these children is warranted for several important reasons. A major reason to investigate the needs of children placed with their biological parents is the current nationwide push toward family preservation. In response to the 1997 Adoption and Safe Families Act (PL105–89), which stressed the importance of placing children in their home of origin while receiving child welfare services, family preservation has become the preferred placement option within the child welfare system. Placing children with their biological parents better serves the system's ultimate goal of family reunification and circumvents the problem of attachment disruption, which can exacerbate any preexisting difficulties that the child may have.^{32,33} Unfortunately, information on the health-related needs of children receiving in-home care is scarce. Second, when placement with the child's biological parents is not a viable option, the child welfare system views kinship care as the next preferred placement setting. In recent years, we have seen increased use of kinship care as an alternative to nonrelative foster care.^{33,34}

This study builds on previous research and addresses gaps in the literature concerning the physical, developmental, and mental health needs of young children placed in different care settings, namely out-of-home care kinship care with relatives, and in-home care with biological parents. The methodology involves chart abstraction from a clinical program set up in San Diego County to identify and link children who are undergoing investigation for child abuse and neglect and are younger than age 6 years with need for health, developmental, and mental health services. The research questions include the following: (1) What are the rates of physical, developmental, and mental health problems in young children entering child welfare? (2) Do these rates differ by initial placement type? (3) What profile patterns of problems across these placement types exist in children entering child welfare? (4) Do these profiles differ by initial placement type? Answers are critical to enable well-informed screening, treatment, and policy decisions as child welfare agencies look to partner with health care professionals and early interventionists to develop programs under the CAPTA legislation. Additionally, results will help inform clinicians who care for this vulnerable subpopulation of children.

METHODS

Setting

The Developmental Screening and Enhancement Program (DSEP) is a collaborative project in San Diego County aimed at improving the identification of health problems among children 5 years 11 months of age and younger entering child welfare. Community partners include the San Diego Health and Human Services Agency, early intervention services (IDEA Parts B and C in San Diego County), the Child Abuse Prevention Foundation, the Proposition 10/First Five Commission (California state tobacco tax dollars specified for school readiness services for children 0–5 years of age), and Children’s Hospital San Diego. Housed at Polinsky Children’s Center (Polinsky), the county’s sole emergency shelter/receiving facility DSEP provides a rare forum for studying the physical, developmental, and mental health needs of children in child welfare, by initial placement type. On average, 80% of children entering out-of-home care in San Diego pass through Polinsky first: those who do not are predominantly neonates placed directly from labor and delivery (P. Rahiser, personal communication, 1998). Following admission to Polinsky, young children are discharged to (1) their biological parents, (2) kinship/relative care, or (3) nonrelative foster care. Each child’s placement type is recorded in Polinsky’s database, allowing extraction of information for this study. Both the San Diego County Health and Human Services Agency and Children’s Hospital’s Institutional Review Boards approved a chart abstraction project to examine the physical, developmental, and mental health needs of children passing through Polinsky.

Sample Participants

All children ages 3 months to 5 years 11 months entering Polinsky from April 1, 1998, through June 30, 1999, and receiving a physical examination, including developmental screening and triage, were eligible for participation in the study (N = 1551). Children stayed at Polinsky an average of 14.3 days (median = 6.0, mode = 1.0 [13% of the children], SD = 23.2). This article reports on a subset of children who were released to their biological parents, placed in kinship care, or placed in nonrelative foster care (N = 1542). On discharge, 28.5% of children were placed with biological parents, 28.4% of children with kin, and 43.1% with nonrelative foster parents. Those placed in a group home setting (n = 9) were not included in the data analysis given the small sample size.

Procedures

On entry into Polinsky, all children received a full intake history and physical examination. The history was collected through information obtained from the child’s previous caregiver by child welfare workers, and, if available, police and medical records. Physical examinations were conducted by 12 on-site licensed physicians or nurse practitioners and followed a specific chart format, with body systems checked off as “abnormal” per the examiner’s clinical judgment and documentation made in the child’s case notes and problem list.

On completion of the intake physical examination, the pediatric care provider also screened each child for developmental delay using the Denver Developmental Screening Test II (Denver-II)³⁵ (see “Measures”). Children without a complete Denver-II or who were noncompliant were rescreened by a trained Developmental Screening Coordinator at a later time while at Polinsky. This rescreening occurred within 48 hours of entry. Children classified as “Suspect” for developmental delay on the Denver-II were referred for a full developmental evaluation with an on-site psychologist. This evaluation was conducted using the Bayley Scales of Infant Development II (Bayley-II)³⁶ if the child was younger than 3.5 years or the Stanford-Binet IV (SB-IV)^{37,38} if the child was 3.5 years or older.

A mental health examination was also performed as part of the intake history and physical examination. No standardized assessment instrument was used. The examination relied primarily on available medical information and/or the clinical judgment of the examining clinician. If serious mental health concerns were observed by on-site staff during the child's stay at Polinsky, a mental health consult was requested from an on-site mental health team, which included an on-site psychologist and child psychiatrist.

Measures

Sociodemographic Characteristics of the children were obtained from the Health and Human Services Agency data information system and consisted of age, gender, primary language, race/ethnicity, reason for removal, and initial placement type. Seven categories were used to describe reason for removal: (1) sexual abuse, (2) physical abuse, (3) emotional abuse, (4) child neglect, (5) caregiver absence, (6) change of placement, and (7) other, including exploitation (e.g., using a child to beg for money) and out-of-town inquiries (e.g., a child from Mexico living in the San Diego area needing child welfare services). Initial placement type included three categories: (1) biological parents, (2) kinship care, and (3) nonrelative foster care.

Physical health status data were abstracted from medical charts at Polinsky. The body systems section of the medical record grouped potential health problems under the following proscribed categories: dermatologic, respiratory, digestive, ear, eye, endocrine, musculoskeletal, neurological, mental health, cardiac, hematologic, reproductive, urinary, toxic syndromes, in utero exposure, toxic screen results, nonaccidental trauma, birth history, metabolic/nourishment, systemic infections, and "other."

Developmental status was assessed using a two-staged process as described above. The Denver-II³⁵ was used to screen all children entering Polinsky for developmental delay. This tool can be used to screen children from birth to 6 years of age and includes 125 items in four sections: Personal-Social, Language, Fine Motor-Adaptive, and Gross Motor. The Denver-II has interrater and test-retest reliabilities of 0.99 (SD = 0.01) and 0.90 (SD = 0.12), respectively. Sensitivity and specificity are neither published nor available from the company (B. Bresnick, personal communication, 2000).³⁹ However, a paper published by Glascoe and colleagues⁴⁰ in 1992 examined the use of the Denver-II in 104 children in day-care centers and found a sensitivity of 83% but a limited specificity of 43%. Scoring criteria of "Normal" and "Suspect" are based on the child's score as compared with others in the same age group. The Denver-II was used by the DSEP program for three reasons. First, it is primarily observational and includes few parent/caregiver report items, which is important in a setting like Polinsky where parental report is not available (the 36 caregiver report items were gleaned from residential workers' reports and child observation). Second, it spans the age range of interest, allowing for use of a single screening tool for all children under age 6 years. Last, it is often used by health care clinicians, including those conducting the physical examination at Polinsky before the implementation of the DSEP program. All screeners were formally trained to administer the Denver-II in 1998 or during their first week of employment at Polinsky and attended periodic retraining workshops to ensure standard test administration. It is interesting to note that, before formal training on the Denver-II, 15% of young children entering Polinsky received a "Suspect" score. Following formal training, the rate jumped to 47% to 63% per month, where it has remained for the past 5 years (K. Gist, personal communication, 2004).

The Bayley-II³⁶ was used to evaluate children ages 0 to 42 months on three scales of development: mental, motor, and behavior. Raw scores from mental and motor scales are converted to standardized scores with a mean of 100 and an SD of 15, providing a Mental Developmental Index (MDI) and Psychomotor Developmental Index (PDI). Published interrater reliabilities are 0.96 for the mental scales and 0.75 for the motor scale; test reliabilities are 0.87 for the mental scale and 0.78 for the motor scale.³⁶ Standard scores on subtests of the

Bayley-II are converted to a categorical variable with the following breakdown: (1) significantly delayed performance, scores ≤ 69 (>2 SD below 100); (b) mildly delayed performance, scores of 70 to 84 (between 1 and 2 SD below 100); and (c) performance within normal limits, scores of ≥ 85 . The behavior scale was not used in this study.

The SB-IV was developed to evaluate cognitive development for ages 2 years through adulthood and measures four areas: verbal reasoning, abstract/visual reasoning, quantitative reasoning, and short-term memory. Scoring provides verbal and nonverbal scores, which are totaled to a composite score with a mean of 100 and an SD of 16.^{37,38} In a sample of preschoolers, internal consistency coefficients ranged from 0.88 to 0.97, and test-retest coefficients ranged from 0.71 to 0.91.^{37,38} Standard scores on the two components of the SB-IV are converted to a categorical variable with the following breakdown: (1) significantly delayed performance, scores ≤ 67 (>2 SD below 100); (b) mildly delayed performance scores of 68 to 83 (between 1 and 2 SD below 100); and (c) performance within normal limits, scores of ≥ 84 and above.

Mental health data were abstracted from medical charts and consisted of information under the “mental health” category of the body systems section of the chart, as documented during the intake physical history and examination, or mental health diagnoses listed under the problem list. Seven types of mental health disturbances were specified on the standardized intake form in the chart: attention-deficit hyperactivity disorder (ADHD), autism/pervasive developmental disorder, depression, oppositional defiant disorder, adjustment disorder, disruptive disorder, and “other.” No standardized assessment was given at that time. The physician could also request a mental health consultation from a clinician if a more in-depth evaluation was necessary; for the purposes of this study, a recommendation for mental health consult was also used as an indicator of mental health problem.

Statistical Analyses

Data management and statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS) version 8.0. Statistical methods included analysis of variance, Bonferroni and χ^2 tests.

RESULTS

Sample Characteristics

The sample (Table 1) of 1542 children was composed approximately equally of males (53.0%) and females (47.0%). The mean age of the subjects was 35.2 months (SD = 19.5). Ethnicity was described by five categories: Caucasian (40.5%); African American (24.2%); Hispanic, English speaking (15.2%); Hispanic, Spanish speaking (14.2%); and “other” (5.9%), which included children of Native American, Asian, and Pacific Islander descent. The most common reasons for removal from the home were caregiver absence (27.6%), neglect (25.3%), and physical abuse (18.5%). Overall, 88% of children entering Polinsky Children’s Center (Polinsky) were removed from their home or origin. The remaining children entering Polinsky came from a previous kinship, foster, or group home.

No differences were found in sociodemographic characteristics of the children by placement type except for reason for removal from the home. Visual inspection of the data indicates that children placed with nonrelative caregivers were more likely to have experienced neglect or change of placement and less likely to have experienced physical abuse.

Physical Health Findings

Overall, 86.7% (1337 children) had physical problems noted on their charts, with the majority having one (31.5%) or two (30.0%) problems noted (Table 2). The body system problem with the highest occurrence of diagnoses was dermatologic with 66.5% (1026 children) of the sample exhibiting atopic or infectious dermatitis. The respiratory system had the next highest occurrence of diagnoses, with 22.6% (348) of the sample demonstrating a respiratory problem, primarily asthma. Dental caries were found in 13.2% (204) of the sample; hematological problems were also prevalent, with 7.4% (114) receiving a diagnosis of anemia.

In terms of physical health findings by placement type, only two categories demonstrated statistically significant differences on χ^2 analysis: neurological and hematological problems. Both neurological findings and anemia were documented more commonly in children returning to biological parents or placed in nonrelative foster care as compared with children placed in kinship care ($p < .01$). After applying a Bonferroni adjustment for multiple comparisons, no body systems demonstrated statistically significant differences across placement types.

Developmental Findings

On the Denver Developmental Screening Test II (Denver-II) screening examination, 57.9% of the children scored "Suspect" High risk of developmental delay was observed across all initial placement types. Chi-square analysis indicated that children placed in nonrelative foster care were more likely to have "Suspect" scores than children placed in other settings ($p < .001$). A total of 893 children were referred for a complete developmental evaluation.

Because 30.6% (273) of the 893 children referred for an evaluation were discharged prior to an evaluation, we ran analyses comparing children who were evaluated with children who scored "Suspect" on the Denver-II but were discharged prior to an evaluation with those who received an evaluation. Children who were not evaluated were more likely to return to biological parents ($p < .001$) and more likely to have been removed due to a change of placement ($p < .05$). Polinsky staff commented that these children often had more visitations scheduled and were thus less available for evaluations. There were no other significant differences between children who were or were not evaluated.

Of the 576 children younger than 3.5 years of age who were eligible for an evaluation using the Bayley Scales of Infant Development II (Bayley-II), 68.6% (395) were administered the Mental Developmental Index (MDI) portion and 64.9% (374) were administered the Psychomotor Developmental Index (PDI) portion (Table 3). Children might not receive the PDI portion of the Bayley-II if the examiner determined that physical injuries precluded an accurate description of the child for that portion of the test (e.g., a child with a broken dominant arm was not asked to complete fine motor portions of the examination). On the MDI, 65.1% (257) of children displayed mildly or significantly delayed performance. On the PDI, delays were not as prevalent, with 47.3% (177) of children displaying mildly or significantly delayed performance. As with the Denver-II, results of the Bayley-II demonstrated a high risk of developmental delay across all initial placement there was no statistical significance between placement groups, with comparable rates of both mild and significant developmental delays observed across all placement types for both the MDI and PDI portions.

Of the 317 children older than age 3.5 years receiving "Suspect" scores on the Denver-II, 71.0% (225) were evaluated using the SB-IV (Table 4). As with the results of the Denver-II and the Bayley-II, rates of delay as measured by the Stanford-Binet IV (SB-IV) were high, suggesting a high risk of developmental delay across all initial placement settings. In the verbal section, 58.2% (131) of children displayed mildly or significantly delayed performance. In the nonverbal section, delays were not as prevalent, with 44.0% (99) of children displaying mildly

or significantly delayed performance. As with the Bayley-II results, there were no significant differences in scores between initial placement types.

In summary, although χ^2 analysis indicated that children placed in nonrelative foster care were more likely to have “Suspect” scores on the Denver-II than children placed in other setting ($P < .001$), there were no significant differences in scores across placement types on either the Bayley-II or the SB-IV.

Mental Health Findings

Of the entire sample ($N = 1542$), only 8.7% (134) had a mental health diagnosis documented in their medical chart or were referred for further evaluation. The most common diagnoses were adjustment disorder (1.2%, $n = 19$), ADHD (1.1%, $n = 17$), and other disruptive disorders (1.1%, $n = 17$). Another 7.8% (120) were recommended for a more in-depth mental health consult.

With respect to the mental health findings, no statistically significant differences were observed between placement groups.

Comprehensive Physical, Developmental, and Mental Health Profiles

Because physical, developmental, and mental health problems can occur in isolation or in conjunction with each other, a profile variable was created to describe patterns across the three domains for each child (Table 5). The most common patterns included one or more medical problems in conjunction with a developmental problem. The constellation of three or more health problems in concert with developmental problems and mental health problems was seen in 2.1% of the total sample and 3.0% of the subsample who received a complete evaluation. Interestingly, children placed with nonrelative foster parents were more likely to exhibit one of two patterns: three or more medical problems and developmental delay with mental health problems or three or more medical problems and developmental delay without mental health problems ($p < .05$).

DISCUSSION

This study’s principal finding is that all participating children were likely to have numerous health, development, or mental health issues, regardless of their initial placement after discharge from Polinsky Children’s Center (Polinsky). Concerning; physical health, 87.6% of all children studied demonstrated needs, with more than half of the children displaying two or more problems. More than half of the children had a “Suspect” score on the Denver Development Screening Test II (Denver-II); 70.3% of children with “Suspect” scores were found to have mild or severe delay on more thorough developmental evaluations. Additionally, 8.7% of the sample were diagnosed with one or more mental health conditions. Rates of physical and developmental health problems were comparable with those of previous studies with children in foster care^{13,22,41–43}; rates of mental health problems reported were more comparable with reports in community samples than rates in children in foster care.^{13,22,42,44,45}

When we examined types of problem by initial placement type, no physical health problems were significant when using a Bonferroni adjustment for multiple comparisons. Whereas children entering nonrelative foster care were found to be more likely to have “Suspect” scores on the initial Denver-II screening test, no differences between placement types were observed on full evaluation using either the Bayley Scales of Infant Development II (Bayley-II) or the Stanford-Binet IV (SB-IV). No differences in the proportions of children having mental health findings were found.

Pattern profiles of problems across the three domains of assessment were also examined. Common patterns included combinations of one or more physical health problems in conjunction with developmental delay. Interestingly, children placed with nonrelative foster parents were found to have more problems across all three domains than children placed with biological parents and kinship caregivers. The low rates of identified mental health problems in the sample limited the proportion of children having patterns that included mental health problems.

Policy Implications

These findings have several important implications for the provision of physical, developmental and mental health services to young children who enter the child welfare system. First, results indicate that young children removed from their homes are at high risk of physical health and developmental problems. However, findings from other studies, suggest that many child welfare agencies have yet to successfully implement comprehensive screening and treatment measures, despite guidelines and legislation encouraging such practices.^{25,46,47} One recent study documented that fewer than half of child welfare agencies provide comprehensive physical, developmental, and mental health evaluations for children entering out-of-home care.⁴⁸ Clearly, collaboration, as suggested in the Child Abuse Prevention and Treatment Act (CAPTA) legislation, is needed to ensure that children undergoing investigation for possible abuse and neglect are screened for physical, developmental, and mental health problems. This type of endeavor requires a revision of current child welfare practices, with a specific focus on health, developmental, and mental health needs added to the mandate to protect the safety and emotional well-being of children investigated for possible abuse and neglect.

Second, results from this study suggest that screening and assessment programs must target all young children removed from their homes on allegations of abuse or neglect, regardless of the initial placement that a child experiences. Mechanisms need to be put into place to ensure that these children are assessed, information is shared with responsible adults in their lives (biological parents, kin, nonrelative caregivers, social workers, health care professionals, intervention services), and children with need are linked to all appropriate services, including early intervention services.

Third, these results argue for a unique role for primary care clinicians. The current American Academy of Pediatrics guidelines recommend that clinicians be aware of the unique health-related needs of children entering the child welfare system.⁴⁶ Pediatric clinicians caring for high-risk populations will need to display vigilance in tracking the developmental and mental health of these children. Particularly concerning are children returned to their home of origin who may receive little if any ongoing monitoring from child welfare.

Fourth, this research highlights several important public policy-related research questions that remain. Child welfare systems have begun to partner with community agencies and professional organizations to develop assessment programs for children placed in nonrelative foster care; some of these approaches have been described in a recent study commissioned by the Maternal and Child Health Bureau.⁴⁹ However, many of these programs have not specifically addressed the particular challenges of identifying and treating children placed in kinship care or children who returned to their biological parents. Although studies of research-based intervention programs have been shown to be effective in addressing the needs of young children with histories of alleged abuse and neglect, there have been limited studies conducted examining the effectiveness of available community-based early intervention and mental health services. These types of health services research questions will be critical to answer if we are to meet the needs of these vulnerable young children.

Limitations

The major limitation of this research is that it relies on records obtained within the context of an existing clinical program. We were thus limited in the range of data elements that could be collected, and data were unavailable regarding parental demographic, socioeconomic status, education, and substantiated abuse history—all risk factors for poor health outcomes.^{16,50–54} In addition, physical, developmental, and mental health diagnostic decisions were made per the examining clinician's judgment. Although developmental status was evaluated using standardized tools, children did not receive a full developmental evaluation unless they failed the Denver-II. Furthermore, the timing of the developmental evaluation and mental health assessment (typically conducted within 2 weeks of removal from the home) may have influenced the children's scores as they were simultaneously adjusting to traumatic circumstances. We also have no information available about the health, developmental, and mental health status of young children bypassing Polinsky. Last, children were not routinely screened for mental health problems; this may partially explain the low rates of mental health concerns in general and the preponderance of externalizing diagnoses as more internalizing mental health diagnoses may have been missed.

SUMMARY

Nevertheless, this is the first study to examine the needs of children across all potential placements after removal from the home for alleged abuse or neglect. The research described in this study provides preliminary estimates of rates of physical health, developmental, and mental health finding in young children on removal from the home by initial placement types. The high percentages of physical, mental, and developmental health problems detected and the little variation in needs across placement types speak to the need for comprehensive physical, developmental, and mental health screenings for all children removed from their home, regardless of placement setting. In addition, follow-up that integrates findings across these domains will be essential for enhancing a child's overall health status. This paper provides important support for and guidance to states looking to implement the CAPTA legislation

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Table 1

Child Characteristics by Initial Placement Type

	Biological Parents (n = 439)	Kinship Care (n = 438)	Nonrelative Foster Care (n = 665)	Total (N = 1542)
Age (mo)				
Mean	35.63	35.16	34.88	35.17
Median	36.00	35.00	34.00	35.00
SD	19.783	19.533	19.389	19.533
Gender				
Male	54.6% (239)	48.6% (213)	55.0% (366)	53.0% (818)
Ethnicity/language				
Caucasian	42.8% (188)	40.2% (176)	39.2% (261)	40.5% (625)
Hispanic-Spanish speaking	13.0% (57)	13.5% (59)	15.5% (103)	14.2% (219)
Hispanic-English speaking	13.7% (60)	18.7% (82)	13.8% (92)	15.2% (234)
African American	23.9% (105)	22.8% (100)	25.3% (168)	24.2% (373)
Other ^a	6.6% (29)	4.8% (21)	6.2% (41)	5.9% (91)
Reason for removal from the home [*]				
Caregiver absence	28.5% (125)	30.4% (133)	25.3% (168)	27.5% (426)
Neglect	7.5% (115)	6.8% (106)	11.0% (170)	25.3% (391)
Physical abuse	23.7% (104)	20.3% (89)	14.0% (93)	18.5% (286)
Emotional abuse	9.1% (40)	14.2% (62)	10.1% (67)	11.0% (169)
Sexual abuse	7.1% (31)	4.8% (21)	4.4% (29)	5.3% (81)
Other ^b	0.2% (2)	0.4% (4)	0.0% (0)	0.4% (6)
Change of placement	5.0% (22)	5.3% (23)	20.8% (138)	11.9% (183)

^a Includes Asian/Pacific Islander and Native American.

^b Includes exploitation and out-of-town inquiry

* $p < .001$

Table 2

Physical Health Abnormalities Endorsed by Placement Type^a

Body System	Biological Parent (n = 439)	Kinship Care (n = 438)	Nonrelative Foster Care (n = 665)	Total (N = 1542)
System type				
Dermatological	65.1% (286)	63.9% (280)	69.2% (460)	66.5% (1026)
Respiratory	22.1% (97)	22.8% (100)	22.7% (51)	22.6% (348)
Dental	11.8% (52)	14.6% (64)	13.2% (88)	13.2% (204)
Hematological*	8.4% (37)	4.8% (21)	8.4% (56)	7.4% (114)
Auditory	5.7% (25)	8.7% (38)	6.2% (41)	6.7% (104)
Nonaccidental trauma (substantiated)	5.5% (24)	8.6% (29)	6.5% (43)	6.2% (96)
Visual	3.2% (14)	2.7% (12)	3.8% (25)	3.3% (51)
Nonaccidental trauma (suspicious)	3.9% (17)	3.7% (16)	2.0% (13)	3.0% (46)
Musculoskeletal	1.8% (8)	3.7% (16)	3.0% (20)	2.9% (44)
Neurological*	2.5% (11)	0.7% (3)	3.6% (24)	2.5% (38)
Cardiac	2.3% (10)	1.4% (6)	2.3% (20)	2.3% (36)
Genital/urinary	1.8% (8)	1.8% (8)	2.0% (13)	1.9% (29)
Gastrointestinal	0.8% (4)	2.1% (9)	1.7% (11)	1.6% (24)
Multisystem	1.1% (5)	0.9% (4)	0.5% (3)	0.8% (12)
No. of problems				
0	14.1% (62)	15.6% (68)	12.3% (82)	13.3% (212)
1	33.7% (148)	32.6% (143)	31.1% (207)	31.5% (498)
2	32.3% (142)	26.3% (115)	30.4% (202)	29.9% (459)
3+	19.8% (87)	25.6% (112)	26.2% (174)	25.4% (373)

^aListed by order of frequency.

* $p < .05$

Table 3

Bayley Scales of Infant Development II Scores by Initial Placement Type

	Biological Parent	Kinship Care	Nonrelative Foster Care	Total
Mental Developmental Index	(n = 65)	(n = 107)	(n = 223)	(N = 395)
Within normal limits ^a	35.4% (23)	38.3% (41)	33.2% (74)	34.9% (138)
Mildly delayed ^b	35.4% (23)	35.5% (38)	35.4% (79)	35.4% (140)
Significantly delayed ^c	29.2% (19)	26.2% (28)	31.4% (70)	29.6% (117)
Psychomotor Developmental Index	(n = 63)	(n = 101)	(n = 210)	(N = 374)
Within normal limits ^a	54.0% (34)	59.4% (60)	49.0% (103)	52.7% (197)
Mildly delayed ^b	33.3% (21)	25.7% (26)	29.0% (61)	28.9% (108)
Significantly delayed ^c	12.7% (6)	14.9% (15)	21.9% (46)	18.4% (69)

^a Score of ≥85.

^b Score of 70 to 84.

^c Score of ≤69.

Table 4

Stanford-Binet IV Scores by Initial Placement Type

	Biological Parent	Kinship Care	Nonrelative Foster Care	Total
Verbal	(n = 45)	(n = 47)	(n = 133)	(N = 225)
Within normal limits ^a	48.2% (19)	44.7% (21)	40.6% (54)	41.8% (94)
Mildly delayed ^b	51.1% (23)	42.6% (20)	46.6% (62)	46.7% (105)
Significantly delayed ^c	6.7% (3)	12.8% (6)	12.8% (17)	11.6% (26)
Nonverbal	(n = 44)	(n = 48)	(n = 135)	(N = 227)
Within normal limits ^a	54.5% (24)	64.6% (31)	52.6% (71)	54.5% (126)
Mildly delayed ^b	43.2% (19)	33.3% (16)	40.0% (54)	39.2% (89)
Significantly delayed ^c	2.3% (1)	2.1% (1)	7.4% (10)	6.3% (12)

^a Score of ≥84.

^b Score of 68 to 83.

^c Score of ≤67.

Table 5

Common Profile Patterns

Health Problem Count	Common Profile Patterns			Total Sample (%) (N = 1542)	Sub-sample Receiving Developmental Evaluations (%) (n = 625)
	Developmental Problem (Yes/No)	Mental Health Problem (Yes/No)			
None	No	No	No	6.1	2.7
None	Yes	No	No	6.6	6.9
One	No	No	No	13.9	8.5
One	Yes	No	No	15.6	17.6
Two	No	No	No	10.9	8.0
Two	Yes	No	No	15.6	18.4
Three	No	No	No	7.4	7.2
Three	Yes	No	No	13.7	17.6
Three	Yes	Yes	Yes	2.1	3.0