# Measures for Assessment of Functioning and Outcomes in Longitudinal Research on Child Abuse

## Volume 1: Early Childhood

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## Abstract

LONGSCAN is a consortium of five longitudinal studies of the antecedents and consequences of child abuse and neglect with common measurement and data collection procedures. The consortium came together and developed interview protocols for measuring etiologic and outcome variables related to child maltreatment in response to a call from the National Research Council for longitudinal research in child abuse and neglect. This manual, the first of three volumes, describes measures used by the LONGSCAN consortium at the Age 4 interview, and at major interviews before Age 4 for the two studies who joined the consortium with children younger than 4. Measures used during middle childhood, at major interviews at Ages 6 and 8, and Annual Contact interviews through Age 9, will be described in the second volume. Measures from Age 10 forward will be described in a third volume of adolescent measures. Each entry includes a description of the measure, its origin, administration and scoring information, norms and comparative data, descriptive statistics from the LONGSCAN samples, data on reliability and validity, and a copy of the instrument itself (as used in LONGSCAN), when permissible. The manual serves as an essential reference for users of LONGSCAN data, as well as for all researchers who seek useful measures related to child and family well-being.

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# Introduction

## Background

In 1991, the National Academy of Sciences, at the request of the Administration for Children, Youth, and Families, charged an expert panel with evaluating the strengths and weaknesses of current research on child maltreatment and developing a research agenda (National Research Council, 1993). The panel concluded that methodology and instrumentation issues were some of the most significant barriers to the conduct of useful research in the area of child abuse and neglect. Their recommendations called for attention to the development of techniques to measure individual experiences of maltreatment (as opposed to reliance on data from agency records), use of well-established instrumentation to measure etiologic or outcome variables, and the development of new measures accompanied by clear descriptions of the measures' development, administration and scoring protocols, and information on reliability and validity whenever possible (*See* Recommendation 8-7, p. 317).

Others have noted the extent to which inadequate measures have led to meaningless or misleading results in maltreatment research (Fantuzzo & Twentyman, 1986; Milner, 1991). Fantuzzo and his colleagues have specifically noted the absence of ecological validity and inappropriate measurement in much of the research on maltreatment. In fact, lack of attention to reliability, validity, and cultural sensitivity in the selection and development of research instruments is a common criticism of social science research, especially in studies focused on disadvantaged, minority populations (Garcia Coll et al., 1996; McGuire & Earls, 1993). Ecological validity and cultural sensitivity are enhanced by gathering information in the child's typical contextual settings and from multiple natural respondents. Testing of maltreating families in unfamiliar settings (clinics, shelters, crisis centers, etc.) may distort the responses of both children and their parents (Fantuzzo & Twentyman, 1986).

There has also been inadequate attention paid to the processes by which effects occur, such as the influence of age, social class, and gender. Cultural and developmental validity for ethnic minority populations are dependent on the measurement tools that are used (Fantuzzo, Weiss, Atkins, Meyers, & Noone, 1998). Reviews suggest that available rating scales for preschool children have poor psychometric properties, especially with respect to low-income or

ethnic minority children (Garcia Coll, et al., 1996), probably because scale developers have frequently failed to include these groups in test development.

The Consortium of Longitudinal Studies in Child Abuse and Neglect (LONGSCAN) was formed in 1990, bringing together five long-term studies of child maltreatment which use common procedures and instrumentation. The consortium has sought to identify or develop appropriate instrumentation for the measurement of etiologic and outcome variables related to child maltreatment. Several preexisting instruments have been modified, expanded, or otherwise adapted for LONGSCAN use in an effort to improve measurement. This volume describes the measures used at the baseline data collection point, which took place prior to Age 4 in two of the studies and at Age 4 in the other three studies. Baseline measures implemented prior to Age 4 in these two studies were administered again at Age 4. Some measures used by these two studies were only administered at the Pre-Age 4 interview, however, as they were only appropriate for very young children. Early descriptive and psychometric data are presented based on both Pre-Age 4 and Age 4 interviews.

*LONGSCAN - An Overview*

Each of five LONGSCAN study sites (located in the East [EA], Midwest [MW], South [SO], Southwest [SW], and Northwest [NW]) is conducting a separate and unique research project on the etiology and impact of child maltreatment. While each project can stand alone on its own merits, the use of common assessment measures, similar data collection methods and schedules, and pooled analyses make LONGSCAN a collaborative effort that is greater than the sum of its parts. In addition to the specific focus of the individual sites, the coordinated LONGSCAN design permits a comprehensive exploration of many critical issues in child abuse and neglect on a combined sample of sufficient size for unprecedented statistical power and flexibility. Built into the LONGSCAN design is the ability to replicate and extend findings across a variety of ethnic, social and economic subgroups.

Each site is following a sample of children who were identified in the first years of life as being maltreated or at high risk for maltreatment. The findings of LONGSCAN will provide a scientific basis for policy-making, program planning, and targeting service delivery by increasing our understanding of the following:

- the child, family, and community factors which increase the risk for maltreatment in its different forms;
- the differential consequences of maltreatment, depending upon its timing, duration, severity, and nature, and upon the child's age and cultural environment;
- the child, family, and community factors (e.g., chronic exposure to violence, parental substance abuse) that increase the harm caused by different forms of maltreatment;
- the factors that increase the probability of positive child outcomes despite maltreatment and other adverse life circumstances;
- the strengths and weaknesses of various societal interventions such as child welfare programs, foster care, mental health services, parenting classes, etc. Some of the sites are involved in intervention research and evaluation of services, expediting the integration of research findings into policy and practice.

The goal of LONGSCAN is to follow these children and their families until the children themselves become young adults. Comprehensive assessments of children, their parents, and their teachers are scheduled to occur at recruitment into LONGSCAN (where ages of children range from infancy to five years old) and again at child ages 4, 6, 8, 12, 14, 16, and 20. The first interview following enrollment into the LONGSCAN protocol was scheduled to occur within three months before or after the child's 4th birthday, except at two sites, NW and MW, which administered a pre-Age 4 interview in addition to the Age 4 interview. Because of delays in start-up, some children, mostly at the SO site, were older than 4 years of age at the first interview. Also, because of attrition after the first initial interview, some families were recruited for the study at the Age 6 interview.

Maltreatment data are collected from multiple sources, including Child Protective Services (CPS) and state Central Registry records, at least every two years. Yearly telephone interviews allow the sites to track families and assess yearly service utilization and important life events. A more detailed description of the Consortium's conceptual model, methods, and organization can be found in Runyan et al. (1998).

*The LONGSCAN samples*

The five LONGSCAN samples vary in their risk status and their exposure to maltreatment. At the most extreme level, the SW site focuses exclusively on children who were

removed from their families and placed into foster care during the first 42 months of life because of child maltreatment (See Landsverk, Davis, Ganger, Newton, & Johnson, 1996). Children enrolled in the LONGSCAN protocol are followed, regardless of whether they remain in the foster care system or return to their family of origin. Even though data were collected on the SW sample in an earlier study, these children were first enrolled into the LONGSCAN protocol at Age 4.

Three of the sites recruited children based on referral to CPS. In the NW sample, all LONGSCAN participants were reported to CPS when they were less than 5 years old and were judged to be at moderate risk for maltreatment based on a state risk assessment system. The MW site recruited three groups of infants, two of which were from families who had recently been reported to CPS for maltreatment. Of these two groups, one received six months of therapeutic intervention and the other received standard care. The third group, a matched comparison group, consisted of neighborhood families, who were matched according to children's age, ethnicity, and family socioeconomic status (see Curtis, Schneider, & Calica, 1995). All children in the SO site were originally recruited from a statewide High Priority Infant Program, which defined risk status based on medical and sociodemographic criteria (see Kotch et al., 1995; Kotch, Browne, Ringwalt, Dufort, Stewart, & Jung, 1997). Like the SW study, the SO site had collected data on these children prior to the onset of LONGSCAN. When the SO site joined the LONGSCAN Consortium, two groups of children were selected from the original sample for long-term study. One group included children who had been reported to CPS prior to their fourth birthdays. The other, a 2:1 comparison group, consisted of non-reported children who were matched with the reported children on income, race, and sex.

The EA site includes low-income children who were recruited during infancy from primary health care clinics (see Black, Dubowitz, Hutcheson, Berenson-Howard, & Starr, 1995; Black, Hutcheson, Dubowitz, & Berenson-Howard, 1994; Black, Hutcheson, Dubowitz, Starr, & Berenson-Howard, 1996). At recruitment, there were two risk groups: one defined by a child factor (inadequate growth in the first two years of life), and the other defined by a parent factor (HIV infection or drug use). The comparison group had no identified risk factors beyond their low-income status. This pre-existing sample joined the LONGSCAN Consortium when the children were four years of age.

Sociodemographic characteristics of the children and their primary caregivers in the five samples at the time of the initial LONGSCAN interview are displayed in Tables 1 and 2. Racial differences across the five samples are notable. The proportion of Black children ranged from 21% at the NW site to 93% at the EA site. The proportion of White children ranged from 5% at the EA site to 51% at the NW site. Only the MW and SW sites had significant percentages of Hispanic children, 15% and 16% respectively. The percentages of children with mixed racial backgrounds were higher than for their caregivers across all sites, especially for the MW, SW and NW sites. The SO site had more children characterized by low birth weight (31%) than the other four sites, probably because low birth weight was one of the risk factors that made a child eligible for recruitment at that site.

**Tables 1 and 2 about here**

The primary caregivers (who served as principal respondents at the pre-Age 4 and Age 4 interviews) tended to be the children's biological mothers at all sites but the SW site (only 31% biological mothers), where children were recruited based on early placement into foster care. In the NW sample, the percentage of biological mothers who were primary caregivers at the initial LONGSCAN interview was only 73%, compared to 89% in the SO sample, 91% in the EA sample, and 99% in the MW sample. The differences observed here are probably due to sample characteristics at the NW and MW sites: all children at the NW site were recruited based on a recent report to CPS, and all the children in the MW sample were infants at the time of the initial interview. When biological mothers were not the primary caregivers, this role was most likely filled by grandmothers, other female relatives, or fathers. Only the SW sample had a notable percentage of foster mothers (19%). There was also wide variation in the educational and marital status of the primary caregivers. The MW site had the highest proportion of caregivers who had not finished high school (61%), and along with the EA site, the highest percentage of mothers who had never been married (69%). In the SW sample, where there was the highest proportion of substitute caregivers, educational status and marital status were higher than at other sites. More than half the families at all the sites were receiving Medicaid assistance, and 47% (SW) to 80% (EA) were receiving Aid to Families with Dependent Children (AFDC) reflecting the generally low socioeconomic status of all the samples.

*Application of ecological-developmental theory*

The Consortium has incorporated the research recommendations of the National Research Council (1993) by relying on an ecological-developmental framework to define the theoretical domains, to determine the data collection schedule, and to construct the age-specific interview protocols. Both ecological theory and extant empirical research have suggested salient risk and protective factors to be examined at the child, parent, family, neighborhood, and cultural levels. The longitudinal design of the project reflects the developmental changes in risk and protective factors that occur as children grow and change from early childhood through young adult years. Because factors and processes influencing resilience can be instrumental in intervention programs, LONGSCAN investigators are committed to the investigation of outcomes suggesting resilience as well as poorer outcomes. Figure 1 portrays LONGSCAN's conceptualization of the ecological-developmental theory that guides data collection as the children experience changing relationships with their social ecology over time.

**LONGSCAN's Ecological-Developmental conceptual model about here**

Age-specific data collection points were selected to correspond to critical periods in children's development, regardless of their exposure to child maltreatment. Because the sample includes children with prior maltreatment histories, children who will first experience maltreatment during the course of the project, and children who may never experience maltreatment, LONGSCAN has the opportunity to examine both antecedents and consequences.

*Selection and development of LONGSCAN measures*

In addition to choosing measures based on ecological-development theory, the LONGSCAN investigators have also sought, whenever possible, to include only measures that are easy to use, culturally sensitive, repeatable, reliable, and valid. Thus, measures selection has been based on the following guidelines:

1. Measures of child characteristics and experiences at major data collection points must reflect the salient developmental issues for children of that age (See Cicchetti & Toth, 1981, for conceptualization of the etiology and consequences of child abuse and neglect from a developmental psychopathology perspective.).

2. Measurement batteries for each data collection point must reflect each layer of the nested social systems within which children of that age typically grow and develop, with greater emphasis on family variables in the early childhood years and increasing emphasis on extrafamilial variables as the child ages.

3. Priority is given to well-established and standardized measures with documented reliability and validity across settings, type of interview, and test population.

4. Multiple natural informants (typically parent, child, and teacher) are used, whenever possible, to take into account possible situational specificity of child behavior and performance in different settings and to assess constructs from differing perspectives. Data gathered from different respondents on the same measure also allow for the examination of instrument validity.

5. The research protocol includes multiple indicators of constructs and external sources of information, such as geocodes to describe neighborhood economic, crime, and social indices. Data on maltreatment are collected from official records as well as from the children and caregivers themselves.

6. Whenever possible, measures are repeated over time for the domains that continue to be theoretically important. Repeated measures allow for the detection of change in subjects or in their environments from one data point to the next.

7. Instruments are selected, developed, and administered with attention to cultural and ethnic relevance, and sensitivity and to other human subjects issues, such as safeguarding privacy and avoiding potential trauma to subjects.

8. Whenever possible, interviews with children and their caregivers take place within familiar environments (e.g. home or school) to enhance the likelihood of ecological validity. Only the EA site has performed interviews within a clinic setting, but this clinic is neighborhood-based and one to which the families have been coming for well-child care since the birth of the subject children.

9. The protocol has been designed to incorporate assessments of social desirability and ratings from the interviewers regarding the validity of the responses.

For the pre-Age 4 and Age 4 protocols, primary caregivers are the principal respondents. At Age 6, primary caregivers continue to provide information on parent and household variables, teachers complete forms on the children's academic performance and social adjustment, and the

children provide information related to their developmental status, mental health, self perceptions, exposure to violence, and perceptions of support. At Age 8 the protocol incorporates tasks of middle childhood, including relationships with family and peers, academic achievement, and adaptive behavior (see Table 3). At Age 12, during the transition to adolescence, youth are asked about personal experiences with maltreatment. This age level was chosen partially because 12-year-old children have the cognitive and emotional skills to make informed responses to health care issues (Weithorn & Campbell, 1982), and should be able to answer sensitive questions about maltreatment. The Age 14 interview is funded by a supplemental grant from NICHD, and focuses on lifetime experiences of parental neglect and delinquent and other problem behaviors. At Age 16, the protocol will focus on educational achievement, occupational plans, and relationships with peers. For the final interview at Age 20, measurement will be focused on the transition to adult roles including family, financial, and community responsibility.

**Table 3 (LONGSCAN Measures) about here**

The cultural and developmental appropriateness of the questions is determined by conducting pre-tests and qualitative interviews which assess the acceptability, sensitivity, comprehensibility and comprehensiveness of the measures prior to adopting the final battery for each major data collection point. The goal is to develop interview protocols that are culturally and developmentally appropriate, but not so specific that they would be unique to only one community. In keeping with the recommended emphasis on transactions between the child and the social ecology, questions are focused on children's experiences within the family, school, neighborhood, and service system. LONGSCAN also contributes toward the definition of maltreatment by relying on an ecological-developmental framework to examine maltreatment from children directly at age 12, in addition to gathering information on reports from others.

## About This Manual

### *Purpose*

This manual provides descriptions of all measures used in the LONGSCAN protocol at the Pre-age 4 and Age 4 interviews. Measures used during middle childhood, at major interviews at Ages 6 and 8, and Annual Contact interviews through Age 9, will be described in the second volume. Measures from Age 10 forward will be described in a third volume of adolescent

measures. This manual was constructed as an essential reference for LONGSCAN investigators and outside investigators who use LONGSCAN data. It should also serve as a useful reference for all researchers who seek to assess variables related to child and family well-being, especially those engaged in child maltreatment research.

*Presentation*

The measures included are presented alphabetically by measure name. Each entry includes a description of the measure, as well as a copy of the instrument itself (as used in LONGSCAN), when permissible. Copyrighted instruments are not included, but information is provided within the description about how to obtain copies of these instruments and further documentation and scoring information.

The instrument descriptions are organized in a standard format that includes in the title heading the instrument's name, authors, and development or publication dates. When the measure was developed by LONGSCAN, the referenced author is LONGSCAN since the development of any new measure was led by the LONGSCAN Measures Committee which includes representatives from each site. The description of each measure includes the purpose, conceptual organization, item origin or selection, materials needed, time required for administration, and training needed for examiners. This overview is followed by scoring information (i.e., scoring protocols as developed by author or in subsequent research studies including score types and score interpretation); norms and comparative data (as reported by author or other researchers), and psychometric support (as reported by author or other researchers).

*LONGSCAN Use*

A separate section on LONGSCAN's use of the measure follows the more general description of its development and prior use in empirical studies. Here we describe specifically how we have used each instrument, including data points at which the instrument is used; the respondent or informant for the measure, information about different versions of the form that were used at different data points and their corresponding mnemonics. The rationale for selecting the measure is also given. A section on administration and scoring notes describes any variations in administration or scoring from that specified by the authors or other researchers. We also

describe any deviations across LONGSCAN sites in the administration or scoring of the instrument.

Descriptive statistics from LONGSCAN data are also provided. For comparison purposes, data are presented by race and by study site. Pre-age 4 data are only presented for the MW and NW sites because these were the only two sites that collected LONGSCAN data on children younger than four years of age.

Evidence of instrument reliability and validity were examined using LONGSCAN data and the results of these analyses are described. The degree of internal consistency of scales was typically assessed by Cronbach's alpha coefficient (Cronbach, 1951). Split-half reliability, more appropriate for developmental tests where items become increasingly more difficult (e.g., Wechsler Preschool and Primary Scale of Intelligence—Revised), was used less frequently.

When possible, we also report initial examinations of the validity of these measures using data from the LONGSCAN samples. Criterion, concurrent, and predictive validity are reported as correlation coefficients. In a few instances, construct validity is examined by using factor analysis. Within LONGSCAN data, one can also look for evidence of internal validity when comparing the association between risk and protective variables and maltreatment. The more similar the groups are on variables other than maltreatment the greater the certainty that observed differences in outcome are attributable to maltreatment.

*Future instrumentation from LONGSCAN*

The LONGSCAN ecological-developmental model suggests increasing emphasis on child- or youth-self report as children age, concurrent with increasing emphasis on cultural, community and peer risk and protective factors relative to family or primary caregiver variables. In recognition of the sensitive nature of youth self-report of maltreatment or engagement in risk behaviors adolescent measures are administered using a project-developed Audio-Computer Assisted Self Interview (A-CASI) system from Age 12 forward. The Age 12 and Age 14 interviews, and possibly the Age 16 interview, will include extensive project-developed child self-report measures of maltreatment, assault, and witnessed violence history. Overarching domains have been identified for future measurement and include the continued assessment of risk and protective factors related to child outcomes, and assessments of key developmental tasks for mid- to late adolescence. These include assessments of: developing autonomy and separation

from caregiver; the development of healthy self-identity; pro-social behavior vs. antisocial and delinquent or violent behavior; peer relations; future orientation and preparation for adulthood, including academic performance and school orientation; and aspiration and planning towards vocation and other adult roles.

**References**


Black, M. M., Dubowitz, H., Hutcheson, J., Berenson-Howard, J., & Starr, R. H., Jr. (1995). A randomized clinical trial of home intervention among children with failure to thrive. Pediatrics, 95 (6), 807-814.

Black, M. M., Hutcheson, J. J., Dubowitz, H., & Berenson-Howard, J. (1994). Parenting style and developmental status among children with non-organic failure to thrive. Journal of Pediatric Psychology, 19 (6), 689-707.

Black, M. M., Hutcheson, J. J., Dubowitz, H., Starr, R. H., Jr., & Berenson-Howard, J. (1996). The roots of competence: Mother-child interaction among low-income, urban, African-American families. Applied Developmental Psychology, 17 (3), 367-391.

Cicchetti, D., & Toth S. L. (1995). A developmental psychopathology perspective on child abuse and neglect. Journal of the American Academy of Child & Adolescent Psychiatry, 34, 541-565.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297-334.

Curtis, P. A., Schneider, M. W., & Calica, R. H. (1995). The Capella Project: Potential impact on public child welfare policy and practices. Proceedings of the Eighth National Round Table on Risk Assessment, San Francisco. Washington, DC: American Public Welfare Association.

Fantuzzo, J & Twentyman, C. (1986). Child abuse and psychotherapy research: Merging social concerns and empirical investigation. Professional Psychology: Research and Practice, 17, 375-380.

Fantuzzo, J. W., Weiss, A. D., Atkins, M., Meyers, R., & Noone, M. (1998). A contextually relevant assessment of the impact of child maltreatment on the social competencies of low-income urban children. Journal of the Academy of Child and Adolescent Psychiatry, 37, 1201-1208.

Garcia Coll, C., Lamberrty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B., & Vazquez Garcia, H. (1996). An integrative model for the study of developmental competencies in minority children. Child Development, 67, 1891-1914.

Kotch, J. B., Browne, D. C., Ringwalt, C. L., Dufort, V., Stewart, P. W., & Jung, J.-W. (1997). Stress, social support, and substantiated maltreatment in the second and third years of life. Child Abuse & Neglect, 21 (11), 1025-1037.

Kotch, J. B., Browne, D. C., Ringwalt, C. L., Stewart, P. W., Ruina, E., Holt, K., Lowman, B., & Jung, J.-W. (1995). Risk of child abuse or neglect in a cohort of low-income children. Child Abuse & Neglect, 19 (9), 1115-1130.

Landsverk, J., Davis, L., Ganger, W., Newton, R., & Johnson, I. (1996). Impact of child psychological functioning on reunification from out-of-home care. Children and Youth Services Review, 18, 447-462.

McGuire, J. & Earls, F. (1993). Exploring the reliability of measures of family relations, parental attitudes, and parent-child relations in a disadvantaged minority population. Journal of Marriage and the Family, 55, 1042-1046.

Milner, J. S. (1991). Measuring parental personality characteristics and psychopathology in child maltreatment research. In R. H. Starr & D. A. Wolfe (Eds.), The effects of child abuse and neglect (pp. 164-185). New York: Guilford.

National Research Council (1993). Understanding child abuse and neglect. Washington, DC: National Academy Press.

Runyan, D. K., Curtis, P. A. Hunter, W. M., Black, M. M., Kotch, J. B., Bangdiwala, S., Dubowitz, H. , English, D., Everson, M. D., & Landsverk, J. (1998). LONGSCAN: A consortium for longitudinal studies of maltreatment and the lifecourse of children. Aggression and Violent Behavior: A Review Journal, 3, 275-285.

Steckler, A. (1992). Integrating qualitative and quantitative methods: An introduction. Health Education Quarterly, 19, 1-8.

Weithorn, L. A., & Campbell, S. B. (1982). The competency of children and adolescents to make informed decisions. Child Development, 53, 1589-1598.

**Table 1. Child Characteristics by Sample at LONGSCAN Baseline***

*(Does not include subjects added to samples at the Age 6 interview)*

| Characteristic | EA (232) | MW (317) | SO (221) | SW (318) | NW (261) |
|---|---|---|---|---|---|
| *Age* | 4 years old | infants | 5 years old | 4 years old | 0-4 years old |
| *Birth Year* | 1987-1991 | 1990-1995 | 1986-1987 | 1987-1991 | 1988-1992 |
| *Sex* | | | | | |
| Male | 54% | 49% | 45% | 45% | 51% |
| Female | 46% | 51% | 55% | 55% | 49% |
| *Race* | | | | | |
| Black | 93% | 49% | 62% | 37% | 21% |
| White | 5% | 14% | 37% | 29% | 52% |
| Hispanic | <1% | 15% | -- | 16% | 2% |
| Multiracial | 1% | 20% | 1% | 15% | 21% |
| Other | 1% | 2% | -- | 3% | 4% |
| *Low Birth Weight* | 19% | 19% | 31% | 7% | 14% |

* Based on data collected through July 1996.

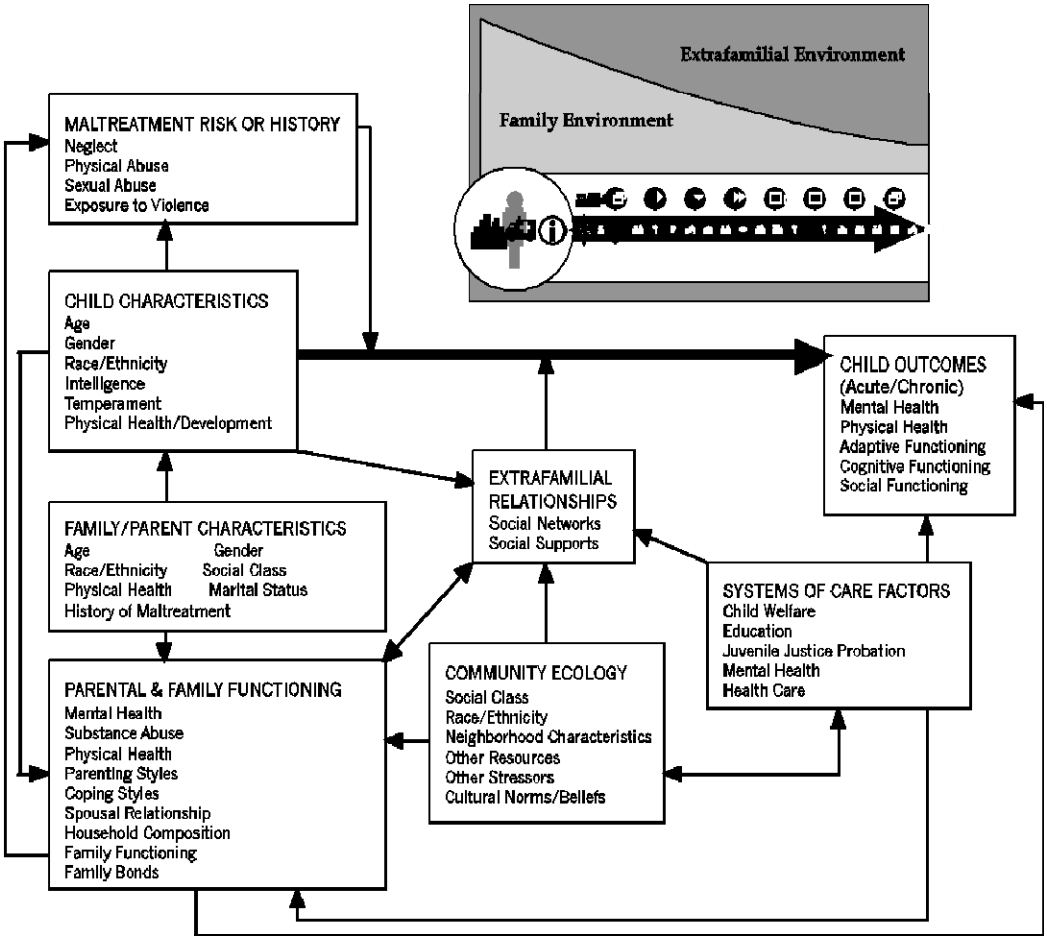
**Table 2: Primary Caregiver Characteristics at LONGSCAN Baseline***

*(Does not include subjects added to samples at the Age 6 interview)*

| Caregiver Characteristic | EA (232) | MW (317) | SO (221) | SW (318) | NW (261) |
|---|---|---|---|---|---|
| *Relationship to Child* | | | | | |
| Biological Mother | 91% | 99% | 89% | 31% | 73% |
| Adoptive Mother | - | - | .5% | 16% | 1% |
| Grandmother | 4% | - | 6% | 11% | 7% |
| Other Female/ Kin | 2% | .3% | 2% | 9% | 4% |
| Foster Mother | 1% | .3% | 1% | 19% | 7% |
| Other Female/ Non-kin | .4% | - | - | 6% | .4% |
| *Male Primary Caregiver* | 2% | .6% | 1% | 8% | 7% |
| *Race* | | | | | |
| Black | 93% | 53% | 61% | 36% | 22% |
| White | 5% | 23% | 38% | 36% | 63% |
| Hispanic | .4% | 15% | .5% | 17% | 2% |
| Mixed Race | .4% | 7% | .5% | 4% | 8% |
| Other | 1% | 3% | .5% | 7% | 5% |
| *Education* | | | | | |
| $\leq$ 11 years | 44% | 61% | 43% | 29% | 39% |
| 12 years | 42% | 26% | 39% | 30% | 30% |
| >12 years | 14% | 14% | 18% | 41% | 31% |
| *Marital Status* | | | | | |
| Married | 16% | 19% | 38% | 50% | 31% |
| Single/ Never Married | 69% | 69% | 45% | 19% | 38% |
| Separated/Divorced | 13% | 11% | 17% | 27% | 31% |
| Widowed | 2% | 1% | .5% | 4% | .4% |
| *Welfare Support* | | | | | |
| AFDC | 77% | 80% | 48% | 47% | 63% |
| Medicaid | 72% | 80% | 69% | 63% | 70% |

* Based on data collected through July 1996.

**LONGSCAN's Ecological - Developmental Conceptual Model**



## Table 3. LONGSCAN Measures: Pre-Age 4 through Age 14

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Child Characteristics*** | | | | | | | | | |
| demographics | Child Demographics (1991) | x | x | x | | | | | P |
| birthweight/prematurity | Perinatal Form (1991) | x | x | | | | | | P |
| separation from caregiver in first year of life | Separation from Caregiver (1991) | x | x | | | | | | P |
| day care utilization | Daycare (1991) | x | x | | | | | | P |
| social competence | Child Behavior Checklist (Achenbach, 1991) | | | | x | x | | | P |
| | Youth Self-Report (Achenbach, 1991) | | | | | x | | | C |
| health/handicapping conditions/injury | Child Health Status (1991, 1993, 1998) | x | x | x | x | x | x | x | P |
| | Child Health & Development (1998) | | | | | x | x** | | C |
| | Child Injury Questionnaire (1991) | x | x | | | | | | P |
| | Child Life Events (1992) | | | x | x | x | x | x | P |
| temperament | Infant Characteristics Questionnaire (Bates et al., 1979) | x | | | | | | | P |
| developmental status | Battelle Developmental Inventory Screening Test (Newborg et al., 1988) | x | x | | | | | | P & C |
| cognitive functioning | PPVT-R (Dunn & Dunn, 1981) | x | x | | | | | | C |
| | WPPSI (Wechsler, 1989) | | | x | | | | | C |
| | WRAT-III-Reading & Arithmetic (Wilkinson, 1993) | | | | | x | | | C |

[1] No author indicates that the measure was project-developed.

[2] P = parent; C = child; T = teacher ratings; I = interviewer ratings; R=record abstraction

O*=indicates a measure in the common battery that is optional.

**=Data collection on partial sample funded by National Institutes for Health.

(Note: The Age 13 Annual Contact Interview is optional by site with Executive Committee Approval; the SO, EA, and SW sites are not administering this interview.)

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Child Characteristics (cont'd)*** | | | | | | | | | |
| adaptive behavior & development | Battelle Developmental Inventory Screening Test (Newborg et al., 1988) | x | x | | | | | | P & C |
| | Vineland Screener (Sparrow, 1993) | | | x | x | x | O* | | P |
| global report of child's well-being | Parent Global Report | | | | | | | Ages 10,11,13 | P |
| behavior problems | Child Behavior Checklist (Achenbach, 1992, 1991) | x | x | x | x | x | x | Age 10 | P |
| | Youth Self-Report (Achenbach, 1991) | | | | | x | | | C |
| | Teacher Report Form (Achenbach, 1991) | | | x | x | x | x** | Age 10, O* | T |
| aggressive behavior | Child Aggressive Behavior Inventory (1992) | | | | | | | x | P |
| affective symptoms | Preschool Symptom Self-Report (Martini, et al., 1990) | x | x | x | | | | | C |
| | Trauma Symptom Checklist for Children (Briere, 1996) | | | | x | x | | | C |
| | Youth Self-Report (Achenbach, 1991) | | | | | x | | | C |
| | CBCL Internalizing Scale (Achenbach, 1991) | | x | x | x | x | x** | | P |
| | Teacher Report Form (Achenbach, 1991) | | | x | x | x | x** | Age 10, O* | T |
| pubertal development | Child Health & Development (1998) | | | | | x | x** | | C |

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Child Characteristics (cont'd)*** | | | | | | | | | |
| ethnic identity | Multigroup Ethnic Identity Measure (Phinney, 1992) | | | | | x | | | C |
| sexual behavior | Child Sexual Behavior Inventory (Friedrich, 1991) | | | | x | | | | P |
| | Adolescent Sexual Experiences Inventory (adapted from CHAMPS, 1999^) | | | | | x | x** | | C |
| parent expectations (re: education) | Parent Expectations for Child | | | | | x | x | | P |
| | Mother-Child Relationship | | | | | x | x** | | C |
| | Father-Child Relationship | | | | | x | x** | | C |
| | (adapted from ADD Health Study, 1998) | | | | | | | | |
| perceived competence | Pictorial Scale of Perceived Competence (Harter & Pike, 1984) | | | x | | | | | C |
| social problem solving | Behavioral Intent Scale (Slaby & Guerra, 1989) | | | | x | | | | C |
| peer relationships | Teacher Estimation of Peer Status (Lemerise & Dodge, 1990) | | | x | x | x | x** | | T |
| | Loneliness & Social Dissatisfaction Scale (Asher et al., 1984) | | | x | | | | | C |
| | Peer Relationships (1998) | | | | | x | x** | | C |
| social development | Vineland Screener (Sparrow,1993) | | | x | x | O* | | | P |
| | Battelle Developmental Inventory Screening Test (Newborg,et al., 1988) | x | x | | | | | | P & C |
| exposure to alcohol & illicit drugs | Exposure to Substances (1994) | | | | x | | | | C |
| | Adolescent Substance Involvement (1998) | | | | | x | | | C |
| | Risk Behaviors of Family & Friends (adapted from CHAMPS, 1999^) | | | | | x | x** | | C |

^ CHAMPS = Computerized Health Assessment using Multimedia Processing Systems

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Child Characteristics (cont'd)*** | | | | | | | | | |
| exposure to violence | Things I've Seen & Heard (Richters & Martinez, 1993) | | | x | x | | | | C |
| | History of Witnessed Violence (1998) | | | | | x | x** | | C |
| | Child Life Events, (1992) | | | x | x | x | x | x | P |
| resilience | Resilience Factors (1998) | | | | | x | x** | | C |
| school orientation | School Orientation (1998) | | | | | x | x** | | C |
| school absenteeism, tardiness | School Information Form (1993) | | | x | x | x | x** | Age 10, O* | T |
| school suspensions | School Information Form-revised (1998) | | | | | x | x** | | T |
| | Teacher Report Form (Achenbach, 1991) | | | x | x | x | x** | | T |
| delinquency | Adolescent Delinquency Survey (adapted from CHAMPS, 1999) | | | | | x | | | C |
| psychological maltreatment self-report | History of Psychological Abuse (1998) | | | | | x | | | C |
| physical abuse self-report | History of Physical Abuse (1998) | | | | | x | | | C |
| neglect self-report | About My Parents (modified from Straus, 1996) | | | | | x | x** | | C |
| sexual abuse self-report | History of Sexual Abuse (1998) | | | | | x | | | C |
| sexual abuse parent report | Child Sexual Behavior (Friedrich, 1991) | | | | x | | | | P |
| central registry maltreatment reports | Maltreatment Data Forms | records review 1994 – 1995; 1996 – 1997<br>site-specific schedule 2000-2005; O* | | | | | | | R |
| lifetime history of CPS allegations and substantiations | Case Narrative Record Reviews | records review 1997-99<br>two reviews to be conducted 2000-2005<br>age 14 record review ** | | | | | | | R |

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Child Characteristics (cont'd)*** | | | | | | | | | |
| psychopathology (NIMH, 1998) | DISC: Diagnostic Interview Schedule for Children IV, Youth Information Modules:<br>1. Anxiety disorders (social phobia, separation anxiety disorder, specific phobia, panic disorder, obsessive-compulsive disorder, PTSD)<br>2. Mood disorders (major depression, dysthymic disorder, mania, hypomania)<br>3. Disruptive Disorders (attention deficit/hyperactivity disorder, oppositional defiant disorder, conduct disorder<br>4. Alcohol/substance abuse | | | | | | x** | | C |
| | DISC, Parent Informant Modules: Disruptive Behavior Disorders | | | | | | x | | P |

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Caregiver Characteristics*** | | | | | | | | | |
| demographics | Caregiver Demographics (1991, 1993) | x | x | x | x | x | x | | P |
| physical health | Caregiver Physical Health (1991, 1994) | x | x | x | x | x | x | | P |
| caregiver history of loss and victimization | Caregiver's History of Loss & Victimization (Hunter & Everson, 1991) | x | x | x (only new care-giver) | | | | | P |
| parenting attitudes | Adult-Adolescent Parenting Inventory (Bavolek, 1979) | x | x | | | | | | P |
| substance use/abuse | CAGE (Mayfield, et al., 1974) | x | x | | | | x | | P |
| | Caregiver Substance Use (1994) | | | | x | | | | P |
| mental health | CES-D (Radloff, 1977) | x | x | x | | x | O** | | P |
| | Health Opinion Survey (Macmillan, 1957) | x | x | | | | | | P |
| | Brief Symptom Inventory (Derogatis, 1975) | | | | x | | | | P |

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Family Microsystem*** | | | | | | | | | |
| family composition | Household Composition and Family Chart (1992) | x | x | x | x | x | x | | P |
| family income | Caregiver Demographics (1991) | x | x | x | x | x | x | x | P |
| family satisfaction | FAPGAR (Smilkstein et al., 1978) | x | x | | | | | | P |
| family functioning | Self-Report Family Inventory (Beavers et al., 1985) | | | x | x | x | x | x | P |
| father involvement in parenting | Father Involvement Form (1992) | | | x | x | | | | P |
| quality of spouse/partner relationship | Autonomy & Relatedness Inventory (Schaefer & Edgerton, 1982) | x | x | | | | | | P |
| quality of child's relationship with caregiver | Mother-Child Relationship Form | | | | | x | x** | | C |
| | Father-Child Relationship Form | | | | | x | x** | | C |
| | Parent-Child Relationship Form (adapted from ADD Health Study, 1997) | | | | | x | x | | P |
| parent involvement/support related to school | School Information Form (1993) | | | x | x | | | | T |
| | School Information Form-Revised (1998) | | | | | x | x** | Age 10, O* | T |
| daily stressors | Everyday Stressors Inventory (Hall, 1985) | | | x | | | | | P |
| services utilization | Service Utilization (1991, 1992, 1994, 1997) | x | x | x | x | x | x | x | P |
| | Perinatal Form (1991) | x | x | | | | | | P |

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Family Microsystem (cont'd)*** | | | | | | | | | |
| domestic violence | Conflict Tactics Scale (Straus, 1979) | | | x | x | | | | P |
| | Conflict Tactics Scale 2 (Straus, 1996) | | | | | x | O* | | P |
| life events | Life Experiences Survey (Sarason et al.,1978) | x | x | | | | | Ages 5, 7 | P |
| | Child Life Events (1992) | | | x | x | x | x | x | P |
| caregiver organizational affiliation | Neighborhood & organizational affiliation (1997) | | | | | x | x | Age 13 | P |
| accessibility of guns in home | Accessibility of guns in home (1999) | | | | | | x | | C |
| use of physical discipline | Conflict Tactics Scale (Straus, 1979)*** (Age 8 = LONGSCAN modified version) | x | x | x | x*** | | | | P |
| | Discipline Methods (1994) | | | | x | | | | P |
| | CTSPC (Straus et al., 1998) | | | | | x | x | | P |
| risk behaviors: presence of drugs/alcohol use in home | Risk Behaviors of Family and Friends (adapted from CHAMPS, 1999) | | | | | x | x** | | C |
| parental monitoring of child | Parental Monitoring (Patterson and Stouthamer-Loeber, 1984) | | | | | x | x | Age 13 | P, C |
| | After School Activity & Supervision, (1998) | | | | | x | x | Ages 11, 13 | P, C |
| household rules & routines | Family Routines Scale (from Jensen, 1983) | | | | | x | x | | P, C |
| hunger and poverty | Poverty Measure (Wehler, Scott, & Anderson, 1992; partly project developed) | | | | | x | x | | P |

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Family Microsystem (cont'd)*** | | | | | | | | | |
| home environment | Interviewer Ratings of Home Environment (1991) | x | x | x | x | x | x | | I |
| income supports | Demographics (1991, 1993)<br>Poverty Measure (Wehler, Scott, & Anderson, 1992; also partly project developed) | x | x | x | x | x<br>x | x<br>x | | P<br>P |

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Exosystem*** | | | | | | | | | |
| unemployment | Demographics (1991, 1993) | x | x | x | x | x | x | | P |
| family income | Demographics (1991, 1993) | x | x | x | x | x | x | | P |
| impact of welfare reform | Welfare Reform Measure (1998) | | Administered yearly beginning 9/1/98 | | | | | | P |
| neighborhood characteristics and social environment | Neighborhood Short Form (1991) | x | x | | x | | | | P |
| | Neighborhood Risk Factors (1992) | | | x | | | | | P |
| | Neighborhood and Organization Affiliation (1997) | | | | | x | x | | P |
| | 1990 census geocoding of 200 variables | | | | | | | | R |
| school safety | School Safety Questionnaire (1992) | | | x | x | | | | T |
| social support of caregiver | Duke-UNC Functional Social Support Questionnaire (Broadhead et al., 1988) | x | x | x | | | | | P |
| | Social Provisions Scale (Russell & Cutrona, 1984) | | | | x | x | x | | P |
| social support of child | Inventory of Supportive Figures (Hunter & Everson, 1990) | | | x | | | | | C |
| | My Family & Friends (Reid et al., 1989) | | | | x | | | | C |

| VARIABLE/DOMAIN | MEASURE (AUTHOR[1], DATE) | LONGITUDINAL DATA POINTS | | | | | | | DATA SOURCE[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | PRE-AGE 4 | AGE 4 | AGE 6 | AGE 8 | AGE 12 | AGE 14 | ANNUAL | |
| ***Macrosystem*** | | | | | | | | | |
| risk behaviors of family and peers | Risk Behaviors of Family and Friends (adapted from CHAMPS, 1999^) | | | | | x | x** | | C |
| ethnic minority status | Parent Demographics (1991, 1992) | x | x | x | | x | x | | P |
| | Child Demographics | x | x | x | | | | | P |
| | Multigroup Ethnic Identity Measure (Reid et al., 1989) | | | | | x | | | C |
| child's first language | Child Demographics | x | x | x | | x | | | P |
| ***Other*** | | | | | | | | | |
| social desirability/caregiver | SDRS-5 (Hays et al., 1989) | | | | x | x | | | P |
| social desirability/child | Lie Scale, Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1994) | | | | x | x | | | C |
| relationship of respondent to child | Interview cover sheets | x | x | x | x | x | x | x | P |

^ CHAMPS = Computerized Health Assessment using Multimedia Processing Systems

# Adult-Adolescent Parenting Inventory

Bavolek, S. 1984

## Description of Measure

*Purpose*

To assess the parenting and child-rearing attitudes of adolescents (ages 12-19 years) and adults (ages 20+).

*Conceptual Organization*

The Adult-Adolescent Parenting Inventory (AAPI) includes 32 items grouped into 4 scales: Inappropriate Parental Expectations of the Child, Lack of Empathy Towards Children's Needs, Parental Value of Physical Punishment, and Parent-Child Role Reversal. Responses are scored on a 5-point Likert scale that ranges from Strongly Agree to Strongly Disagree.

*Item Origin/Selection Process*

Items selected for the inventory met a pre-set criterion of 80% or better agreement among experts that the item was measuring the intended construct (Bavolek, 1984; Bavolek, Kline, McLaughlin, & Publicover, 1979).

*Materials*

Test booklets include test items and a form to collect basic demographic information. Test materials are available from the publisher.

The AAPI has two forms, Form A and Form B. The major difference between the two forms is the wording change on 11 items on Form B.

*Time Required*

10 minutes

*Administration Method*

The interviewer should take care to establish rapport with the individual completing the inventory, emphasizing that there are no right or wrong answers. The inventory may be self- or

interviewer-administered individually or in a small group setting. The interviewer may assist by explaining unknown words to the individual; however care should be taken not to provide information or engage in discussion that may bias the examinees' responses. The interviewer should make sure that all questions have been answered and that only one answer is given for each question.

For purposes of test-retest, the author advises that the examiner alternate between the two forms.

**Training**

Minimal

**Scoring**

*Score Types*

Raw scale scores are computed by adding items as follows:

- Inappropriate Parental Expectations of Child: Items 6, 10, 16, 17, 20, and 27
- Lack of Empathy Towards Children's Needs: Items 5, 18, 21, 23, 24, 26, 28, and 31
- Parental Value of Physical Punishment: Items 2, 8, 9, 12, 13, 15, 19, 22, 25, and 29
- Parent-Child Role Reversal: Items 1, 3, 4, 7, 11, 14, 30, and 32

Raw scores may be converted to sten scores (scores standardized to have a distribution of 1 to 10). The norms tables can be found in the AAPI Handbook (Bavolek, 1984).

*Score Interpretation*

Although Bavolek (1984) conceptualized and named his constructs in terms of negative or undesirable behavior, higher scores on these scales reflect more appropriate attitudes (e.g., lower scores on the Parental Value of Physical Punishment Scale indicate a greater belief in the value of physical punishment).

Sten scores of 5 and 6 are considered in the average range and reflect the norm for the population. Interpretations of other sten scores are as follows:

1 and 2: reflect significant deficiencies in parenting beliefs. Individuals with these scores

should be considered at risk for abusive parent-child interactions.

3 and 4: reflect some deficiencies, but also some strengths.

7 and 8: reflect above average parenting attitudes.

9 and 10: extremely positive scores and indicate very appropriate attitudes toward parenting.

**Norms and/or Comparative Data**

The authors tested the instrument in 1978 on a sample of 2,415 adolescents age 12 to 21 years, enrolled in 6 public schools in Baltimore, MD. The sample was primarily Black (96%) and the majority of the sample was female (71%). Initial field testing of the AAPI with adults was conducted by Stone (1980) with 194 adults attending Loyola University in Chicago. Since the 1980 study, normative data for the AAPI for adults have been developed from 782 adults with known histories as child abusers, and 1,045 adults from the general population. Norm tables for adult and adolescent abused and non-abused females are provided in the manual (Bavolek, 1984).

**Psychometric Support**

*Reliability*

Bavolek (1984) reports acceptable internal consistency on subscales in adult and adolescent test populations. Alpha coefficients for adults were as follows: Inappropriate Expectations, .75; Lack of Empathy, .82; Value of Physical Punishment, .85; and Role Reversal, .86. For adolescents the reliability coefficients were .70 for Inappropriate Expectations, .75 for Lack of Empathy, .81 for Value of Physical Punishment, and .82 for Role Reversal. One week test-retest agreement for all items among the 35 participating adolescent respondents was .76.

The LONGSCAN SO site administered the AAPI to their sample yearly prior to entry into the consortium. Scores on the test were found to be stable with Pearson product-moment coefficients ranging from .56 on the Inappropriate Expectations scale to .76 on the Lack of Empathy scale after two years (N=149); coefficients following a four-year interval ranged from .54 on Role Reversal to .61 on Inappropriate Expectations (Lowman, 1992).

*Validity*

Construct validity was established through inter-item correlations, item-construct correlations, and factor analyses. See AAPI Handbook for details (Bavolek, 1984).

**LONGSCAN Use**

*Data Points*

Pre-Age 4: NW and MW sites

Age 4: All sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

AAPB. LONGSCAN added 6 project-developed items to Bavolek's original instrument which were expected to improve the validity and reliability of the Appropriate Expectations scale (See Administration and Scoring Notes).

*Rationale*

The four constructs measured in this instrument are related to the parenting and child-rearing practices of abusive parents.

*Administration and Scoring Notes*

Interviewer-administered. Respondents were shown a card with response choices.

LONGSCAN re-labeled the scales to more accurately reflect the behavior being measured. For the purposes of LONGSCAN the four summative scales are:

- Appropriate Expectations: Items 6, 10, 16, 17, 20, and 27
- Appropriate Empathy: Items 5, 18, 21, 23, 24, 26, 28, and 31
- Rejection of Physical Punishment: Items 2, 8, 9, 12, 13, 15, 19, 22, 25, and 29
- Appropriate Family Roles: Items 1, 3, 4, 7, 11, 14, 30 and 32

LONGSCAN's expanded version of the Appropriate Expectations scale is as follows:

- Appropriate Expectations: Items 3a, 4a, 6, 7a, 10, 14a, 16, 17, 20, 27, 30a, and 32a

## Results

*Descriptive Statistics*

Table 1 provides the mean subscale scores on the AAPI by race and study site, based on primary caregivers' responses at the Age 4 interview. Mean Appropriate Expectations scores for all sites and races range from 23-25, equivalent to a sten score of 5 (or average) for the general adult population. Scores were lower on the Empathy subscale (4-5 sten range), particularly among Black caregivers. Accordingly, at the EA and SO sites where a higher percentage of the samples are Black, scores were lower. For the Physical Punishment subscale, scores were in the average (EA, MW, SO) to above average (SW, NW) range, indicating better parenting attitudes in this area. Scores were also average across sites for the Appropriate Roles subscale, with the exception of the EA site where scores indicated a tendency toward role reversal.

**Table 1 about here**

*Reliability*

Cronbach's alpha coefficients for the AAPI scales, based on caregivers' responses at the Age 4 interview, are displayed in Table 2 by race and study site. The coefficients of internal consistency reliability range from the low .60s (Appropriate Expectations) to the low .90s (Appropriate Family Roles).

*Construct Validity*

To confirm the construct validity of Bavolek's original AAPI factor structure and assess the construct validity of the AAPI scales with the addition of the six LONGSCAN generated items, the latent structure of the instrument was examined through principal components analysis (orthogonal matrix, varimax rotation) using the LONGSCAN pre-Age 4 (MW and NW sites) and Age 4 (all sites) data sets. In general, Bavolek's 4-factor structure was supported. At both pre-Age 4 and Age 4 two well defined factors were revealed: Appropriate Family Roles and Empathy. This finding is consistent with the higher Cronbach's alpha values for these two scales.

The addition of the six LONGSCAN generated items to Appropriate Expectations scale had little effect on the overall construct validity of this factor at either pre-Age 4 or Age 4. At both data points half of the items had loadings greater than .40 on the factor.

It is interesting to note that the items clustering on the Physical Punishment scale (i.e., those with loadings of .40 or greater) clearly specify the words "physical punishment", "spank", and "slap" (e.g., items 2, 8, 12, 13, 15, and 25). Items relating to discipline which did not specify physical punishment (items 9, 19, 22, 29) had no clear cluster pattern.

**Table 2 about here**

*Concurrent Validity*

Concurrent validity of the AAPI Physical Punishment scale was assessed by correlating the scores with caregivers' scores on the Verbal Aggression and Minor Violence scales from the Parent-Child Conflict Tactics Scales (CTS). The correlation with Verbal Aggression was .16 ($N = 576$, $p < .0001$), and with Minor Violence was .29 ($N = 576$, $p < .0001$). The correlations were examined separately for the NW sample ($N = 249$) because the CTS items were scored differently at this site ("yes/no" at NW versus a five-point scale measuring frequency at the other sites). The Spearman correlations from the NW site between the AAPI Physical Punishment scale scores and those on the CTS Verbal Aggression and Minor Violence scales were higher ($r = .27$ and $r = .36$, respectively). These correlations suggest a relationship between parents' attitudes about physical punishment and their behavior in this area.

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**References and Bibliography**

Bavolek, S. (1984). Handbook for the AAPI (Adult-Adolescent Parenting Inventory). Park City, Utah: Family Development Resources, Inc.

Bavolek, S., Kline, D. F., McLaughlin, J. A., & Publicover, P. R. (1979). Primary prevention of child abuse and neglect: Identification of high-risk adolescents. Child Abuse and Neglect, 3, 1071-1080.

Lowman, B. (1992). [The stress and social support project.] Unpublished raw data.

Stone, J. M. (1980). A comparison of the attitudes of educators and their parents as measured by four constructs associated with child abuse. Doctoral dissertation, Loyola University of Chicago.

**Table 1. Mean Scale Scores on the AAPI by Race and by Study Site**

| | N | Appropriate Expectations (Expanded) M (SD) | Appropriate Expectations M (SD) | Empathy M (SD) | Rejection of Physical Punishment M (SD) | Appropriate Family Roles M (SD) |
|---|---|---|---|---|---|---|
| *Total* | 1145 | 47.6 (6.35) | 24.14 (3.56) | 29.99 (5.53) | 37.16 (6.41) | 29.07 (6.64) |
| *Race* | | | | | | |
| White | 397 | 49.96 (5.75) | 25.28 (3.24) | 32.69 (4.73) | 39.43 (5.81) | 32.62 (5.51) |
| Black | 584 | 46.09 (6.33) | 23.38 (3.60) | 28.16 (5.34) | 35.33 (6.40) | 26.71 (6.31) |
| Hispanic | 82 | 47.28 (6.25) | 24.10 (3.77) | 29.43 (5.48) | 38.26 (5.46) | 28.00 (6.64) |
| Multiracial | 37 | 48.86 (5.45) | 24.43 (3.03) | 30.68 (5.42) | 37.97 (6.45) | 29.97 (6.58) |
| Other | 43 | 46.92 (6.41) | 23.93 (3.30) | 30.44 (5.10) | 38.21 (6.130 | 29.70 (6.14) |
| *Study Site* | | | | | | |
| EA | 237 | 45.54 (6.36) | 23.07 (3.54) | 27.60 (5.14) | 35.22 (6.12) | 26.03 (5.83) |
| MW | 123 | 49.15 (5.12) | 24.80 (2.73) | 30.21 (4.92) | 37.44 (5.61) | 30.63 (5.78) |
| SO | 221 | 45.84 (6.44) | 23.18 (3.73) | 28.02 (5.40) | 32.72 (5.70) | 26.95 (6.71) |
| SW | 314 | 48.69 (6.29) | 24.73 (3.64) | 31.31 (5.34) | 39.67 (5.67) | 30.00 (6.87) |
| NW | 250 | 49.14 (5.98) | 24.96 (3.25) | 32.24 (5.09) | 39.57 (5.80) | 31.86 (5.67) |

*Note.* Shaded cells represent sten scores of 4. Based on general population norms, sten scores of 4 represent some deficiencies in parenting skills, but also some strengths (Bavolek, 1984).
*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. Cronbach's Alpha Coefficients on the AAPI Scales by Race and by Study Site**

| | Appropriate Expectations (Expanded) | Appropriate Expectations | Empathy | Rejection of Physical Punishment | Appropriate Family Roles |
|---|---|---|---|---|---|
| *Race* | | | | | |
| White | .83 | .77 | .81 | .82 | .89 |
| Black | .81 | .74 | .80 | .82 | .87 |
| Hispanic | .80 | .76 | .81 | .78 | .90 |
| Multiracial | .77 | .62 | .86 | .87 | .92 |
| Other | .80 | .60 | .79 | .82 | .87 |
| *Study Site* | | | | | |
| EA | .81 | .71 | .78 | .80 | .83 |
| MW | .81 | .73 | .81 | .82 | .90 |
| SO | .83 | .79 | .82 | .75 | .91 |
| SW | .81 | .74 | .81 | .80 | .90 |
| NW | .83 | .75 | .85 | .85 | .89 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

## Adult-Adolescent Parenting Inventory

## (AAPB)

The next questions are about being a parent and raising children. I want you to tell me how much you agree or disagree with each statement. While you may not find an answer, which exactly states your feelings, please tell me the answer that most closely describes how you feel. Give the first answer that comes to your mind.

(HAND CARD)

1 Strongly Agree

2 Agree

3 Uncertain

4 Disagree

5 Strongly Disagree

| | **SA** | **A** | **U** | **D** | **D** |
|---|---|---|---|---|---|
| 1. Young children should be expected to comfort their mother when she is feeling blue. | 1 | 2 | 3 | 4 | 5 |
| 2. Parents should teach their children right from wrong by sometimes using physical punishment. | 1 | 2 | 3 | 4 | 5 |
| 3. Children should be the main source of comfort and care for their parents. | 1 | 2 | 3 | 4 | 5 |
| 3a. If a child really loves his or her mother, the child will be well-behaved. | 1 | 2 | 3 | 4 | 5 |
| 4. Young children should be expected to hug their mother when she is sad. | 1 | 2 | 3 | 4 | 5 |
| 4a. It's OK to occasionally expect a child to stay home from school if it will help out the family. | 1 | 2 | 3 | 4 | 5 |
| 5. Parents will spoil their children by picking them up and comforting them when they cry. | 1 | 2 | 3 | 4 | 5 |
| 6. Children should be expected to verbally express themselves before the age of one year. | 1 | 2 | 3 | 4 | 5 |

| | SA | A | U | D | SD |
|---|---|---|---|---|---|
| 7. A good child will comfort both of his/her parents after the parents have argued. | 1 | 2 | 3 | 4 | 5 |
| 7a. If a parent had to work nights, older children (like 8 to 10 years of age) could take the responsibility and be left home alone. | 1 | 2 | 3 | 4 | 5 |
| 8. Children learn good behavior through the use of physical punishment. | 1 | 2 | 3 | 4 | 5 |
| 9. Children develop good strong characters through very strict discipline. | 1 | 2 | 3 | 4 | 5 |
| 10. Parents should expect their children who are under three years to begin taking care of themselves. | 1 | 2 | 3 | 4 | 5 |
| 11. Young children should be aware of ways to comfort their parents after a hard day's work. | 1 | 2 | 3 | 4 | 5 |
| 12. Parents should slap their child when s/he has done something wrong. | 1 | 2 | 3 | 4 | 5 |
| 13. Children should always be spanked when they misbehave. | 1 | 2 | 3 | 4 | 5 |
| 14. Young children should be responsible for much of the happiness of their parents. | 1 | 2 | 3 | 4 | 5 |
| 14a. Talking in front of young children, (like under age 6), about problems in the family is OK because they can't understand. | 1 | 2 | 3 | 4 | 5 |
| 15. Parents have responsibility to spank their child when s/he misbehaves. | 1 | 2 | 3 | 4 | 5 |
| 16. Parents should expect children to feed themselves by twelve months. | 1 | 2 | 3 | 4 | 5 |
| 17. Parents should expect their children to grow physically at about the same rate. | 1 | 2 | 3 | 4 | 5 |
| 18. Young children who feel secure often grow up expecting too much. | 1 | 2 | 3 | 4 | 5 |

| | SA | A | U | D | SD |
|---|---|---|---|---|---|
| 19. Children should always pay the price fo misbehaving. | 1 | 2 | 3 | 4 | 5 |
| 20. Children should be expected at an early age to feed, bathe, and clothe themselves. | 1 | 2 | 3 | 4 | 5 |
| 21. Parents who are sensitive to their children's feelings and moods often spoil their children. | 1 | 2 | 3 | 4 | 5 |
| 22. Children deserve more discipline than they get. | 1 | 2 | 3 | 4 | 5 |
| 23. Children whose needs are left unattended will often grow up to be more independent. | 1 | 2 | 3 | 4 | 5 |
| 24. Parents who encourage communication with their children only end up listening to complaints. | 1 | 2 | 3 | 4 | 5 |
| 25. Children are more likely to learn appropriate behavior when they are spanked for misbehaving. | 1 | 2 | 3 | 4 | 5 |
| 26. Children will quit crying faster if they are ignored. | 1 | 2 | 3 | 4 | 5 |
| 27. Children 5 months of age ought to be capable of sensing what their parents expect. | 1 | 2 | 3 | 4 | 5 |
| 28. Children who are given too much love by their parents will grow up to be stubborn and spoiled. | 1 | 2 | 3 | 4 | 5 |
| 29. Children should be forced to respect parental authority. | 1 | 2 | 3 | 4 | 5 |
| 30. Young children should try to make their parents life more pleasurable. | 1 | 2 | 3 | 4 | 5 |
| 30a. A 7 year old is old enough to get his/her own meals. | 1 | 2 | 3 | 4 | 5 |
| 31. Young children who are hugged and kissed often will grow up to be "sissies". | 1 | 2 | 3 | 4 | 5 |
| 32. Young children should be expected to comfort their father when he is upset. | 1 | 2 | 3 | 4 | 5 |
| 32a. An older daughter (like around 12) could reasonably be expected to discipline younger brothers and sisters. | 1 | 2 | 3 | 4 | 5 |

# Autonomy and Relatedness Inventory

Schaefer, E. S. and Edgerton, M. 1982

## Description of Measure

*Purpose*

To assess the quality of an individual's relationship with a "significant other" (including spouse, partner, other close relatives, or friends).

*Conceptual Organization*

The Autonomy and Relatedness Inventory (ARI) is a short version of the Marital Autonomy and Relatedness Inventory [MARI] (unpublished). The ARI includes the 30 items which loaded most heavily on the MARI "Autonomy" and "Relatedness" scales. Items on the ARI comprise six primary scales: Relatedness, Hostile Control, Acceptance, Detachment/Rejection, Control, and Autonomy; and 2 supplemental scales, Support and Listening.

*Item Origin/Selection Process*

Items were selected from a larger sample of 74 items (Schaefer & Edgerton, 1979) developed for use among married adults. To shorten the inventory, the authors eliminated items not directly correlated with autonomy and relatedness and items inapplicable to childless couples. Items from earlier relationship inventories were added for scales of Support and Listening to strengthen the measurement of positive dimensions of relationships.

*Materials*

Non-copyrighted form is included in this manual. Also see Schaefer and Edgerton (1982).

*Time Required*

5 minutes

*Administration Method*

Self- or interviewer-administered. If the inventory is administered orally, it is helpful to

the respondent to hold a card listing the response choices. If all the respondents in a study are literate, the form may be self-administered with appropriate changes in the instructions.

*Training*

Minimal

**Scoring**

*Score Types*

Response values range from 1 (not like him/her at all) to 5 (very much like him/her), and the primary scales each consist of 4 items; hence scale scores range from 4 to 20.

*Score Interpretation*

Higher scores for a scale indicate greater degrees of the quality being measured. Scores may be compared to the mean scores for a normal population of low-income mothers (Schaefer & Edgerton, 1982; see below).

**Norms and/or Comparative Data**

Schaefer and Edgerton (1982) administered the ARI to 234 mothers being followed in a longitudinal study of mother-child pairs recruited from a county public health department. Mean education of the mothers was just below high school and family income averaged less than $5000. About 35% were married. Respondents were asked to identify the most important adult in their life, by relationship, and the ARI was administered in reference to this person. The respondent was then asked to identify the second most important person and respond to the same items for that person. If the respondent was married but did not identify their spouse as the first or second most important person in their life, they were asked to describe their spouse in a third section of the instrument.

Forty-three percent of all respondents named their husbands/partners as the most important adult in their lives, followed by 35% who named their mothers. Table 1 describes mean scale scores on the ARI primary scales for husbands/partners when they were described as the most important adult in life, second most important adult in life, or neither. Standard deviations were not available.

**Table 1 about here**

## Psychometric Support

*Reliability*

Internal consistency of subscales in the test population was found to range from .70 (Hostile Control) to .80 (Control) for any intimate including husbands, boyfriends, relatives, and friends. Alpha coefficients examined for husbands/partners only were slightly higher ranging again from .70 (Hostile Control) to .86 (Acceptance) (Schaefer & Edgerton, 1982). Alphas on the total score in other samples ranged from .75 (Hall, Williams, & Greenberg, 1985) to .94 (Hall, Gurley, Sachs, & Kryscio, 1991).

*Validity*

Concurrent validity of this measure as used to assess relationships with primary intimates among a sample of 234 women was supported by substantial correlations with the Dyadic Adjustment Scale (DAS) (Spanier, 1976) (Hall, 1983). Adequate construct validity was demonstrated by factor analysis that yielded two distinct factors: Autonomy (versus Control), and Relatedness (versus Detachment/Rejection) (Schaefer & Edgerton, 1982).

## LONGSCAN Use

*Data Points*

Pre-Age 4: NW and MW sites

Age 4: All sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

ARIA

*Rationale*

Caregiver's relationship with her spouse/partner is considered an important contextual variable for the investigation of parent-child relationships and family functioning.

*Administration and Scoring Notes*

The ARI was interviewer-administered; respondents were given a card that listed answer choices. LONGSCAN administered only the 24 items measuring the 6 primary scales describing Relatedness, Hostile Control, Acceptance, Detachment, Control, and Autonomy. Respondents were only asked to describe their relationship with husbands/partners.

Scale scores are computed by summing item scores as follows:

- Relatedness: Items 1, 7, 13, and 19
- Hostile Control: Items 2, 8, 14, and 20
- Acceptance: Items 3, 9, 15, and 21
- Detachment: Items 4, 10, 16, and 22
- Control: Items 5, 11, 17, and 24
- Autonomy: Items 6, 12, 18, and 23

**Results**

*Descriptive Statistics*

Table 2 displays the means and standard deviations, by race and study site, for 785 maternal caregivers who were living with spouses or partners at the time of the Age 4 interview. The respondents in the LONGSCAN study rated their husband/partners similarly to those in Schaefer and Edgerton's (1982) study, in which most respondents listed their husband/partners as the most important person to them. However, women in this study perceive that their partners are less controlling and as granting them more autonomy in their relationships as compared to the mothers in Schaefer and Edgerton's (1982) study. Perhaps this reflects the trend toward parity in relationships between women and men during the intervening years between the earlier study and the present study.

**Table 2 about here**

*Reliability*

The internal consistency reliability coefficients of ARI subscales, by study site and by race, are displayed in Table 3. Overall the alpha coefficients indicate acceptable internal consistency across sites and racial groups.

**Table 3 about here**

**References and Bibliography**

Hall, L. A. (1983). Social support, everyday stress, and maternal mental health. Unpublished doctoral dissertation, University of North Carolina at Chapel Hill.

Hall, L. A., Gurley, D. N., Sachs, B., & Kryscio, R. J. (1991). Psychosocial predictors of maternal depressive symptoms, parenting attitudes, and child behavior in single-parent families. Nursing Research, 40 (4), 30-39.

Hall, L. A., Williams, C. A., & Greenberg, R. S. (1985). Supports, stressors, and depressive symptoms in low-income mothers of young children. American Journal of Public Health, 75 (5), 518-522.

Schaefer, E. S., & Burnette, C. K. (1987). Stability and predictability of quality of women's marital relationships and demoralization. Journal of Personality and Social Psychology, 53 (6), 1129-1136.

Schaefer, E.S., & Edgerton, M.E. (1979). Marital Autonomy and Relatedness Inventory. Princeton, NJ: Educational Testing Service.

Schaefer, E.S., & Edgerton, M.E. (unpublished). Autonomy and Relatedness Inventory. Unpublished 1982 manuscript. School of Public Health, University of North Carolina at Chapel Hill.

Spanier, G.B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. Journal of Marriage and the Family, 38, 15-28.

**Table 1: Mean Subscale Scores on the ARI among Women and their Partners**

| Husband/ Partner Listed as... | N | Related-ness | Accept-ance | Autonomy | Detach-ment/ Rejection | Hostile Control | Control |
|---|---|---|---|---|---|---|---|
| Most important adult in life | 101 | 16.5 | 15.7 | 11.4 | 5.7 | 8.9 | 9.9 |
| Second most important adult in life | 66 | 16.1 | 15.0 | 10.6 | 6.3 | 10.1 | 11.4 |
| Neither | 5 | 10.4 | 12.4 | 7.8 | 8.6 | 15.2 | 15.0 |

Source. Schaefer and Edgerton (1982).

**Table 2. Mean Subscale Scores on the ARI by Race and Study Site**

| | N | Relatedness M (SD) | Acceptance M (SD) | Autonomy M (SD) | Detachment M (SD) | Hostile Control M (SD) | Control M (SD) |
|---|---|---|---|---|---|---|---|
| *Total* | 784 | 15.7 (3.8) | 15.4 (3.7) | 14.8 (3.9) | 6.1 (3.1) | 8.3 (4.2) | 8.4 (4.3) |
| *Race* | | | | | | | |
| White | 309 | 15.4 (3.6) | 15.3 (3.6) | 15.1 (3.9) | 5.8 (2.8) | 7.7 (4.0) | 7.7 (3.8) |
| Black | 361 | 15.9 (3.8) | 15.5 (3.8) | 14.4 (4.0) | 6.2 (2.8) | 8.8 (4.4) | 9.0 (4.5) |
| Hispanic | 52 | 16.7 (3.8) | 16.0 (3.7) | 14.8 (4.0) | 6.3 (3.5) | 8.7 (4.5) | 8.4 (4.9) |
| Multiracial | 28 | 15.0 (4.1) | 14.7 (4.0) | 15.3 (3.3) | 6.1 (2.3) | 8.3 (3.8) | 9.2 (4.1) |
| Other | 33 | 15.4 (4.0) | 15.9 (3.9) | 15.5 (3.6) | 6.5 (3.8) | 8.4 (4.2) | 8.4 (4.5) |
| *Study Site* | | | | | | | |
| EA | 165 | 16.2 (3.7) | 15.6 (3.6) | 14.4 (3.6) | 5.9 (3.1) | 8.6 (4.3) | 8.7 (4.5) |
| MW | 77 | 14.8 (3.7) | 14.8 (3.9) | 14.7 (4.1) | 6.0 (2.5) | 8.6 (4.0) | 8.6 (3.7) |
| SO | 156 | 15.4 (4.0) | 14.9 (3.9) | 13.8 (4.1) | 6.4 (3.4) | 8.4 (4.4) | 9.2 (4.6) |
| SW | 212 | 16.4 (3.3) | 16.2 (3.4) | 15.6 (3.8) | 5.8 (2.9) | 7.7 (4.1) | 7.9 (4.1) |
| NW | 175 | 15.1 (4.0) | 15.2 (3.8) | 15.2 (3.9) | 6.3 (3.2) | 8.5 (4.2) | 8.1 (4.1) |

Source. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 3. Cronbach's Alpha Coefficients for ARI Subscales by Race and by Study Site**

| | Relatedness | Acceptance | Autonomy | Detachment | Hostile Control | Control |
|---|---|---|---|---|---|---|
| *Total* | .79 | .81 | .75 | .74 | .82 | .76 |
| *Race* | | | | | | |
| White | .79 | .84 | .81 | .77 | .85 | .75 |
| Black | .78 | .77 | .71 | .72 | .80 | .75 |
| Hispanic | .83 | .82 | .70 | .77 | .79 | .83 |
| Multiracial | .84 | .85 | .62 | .42 | .79 | .68 |
| Other | .76 | .87 | .72 | .90 | .80 | .81 |
| *Study Site* | | | | | | |
| EA | .76 | .71 | .58 | .75 | .78 | .76 |
| MW | .76 | .81 | .80 | .64 | .79 | .62 |
| SO | .81 | .82 | .74 | .74 | .84 | .76 |
| SW | .75 | .82 | .76 | .72 | .81 | .75 |
| NW | .81 | .85 | .83 | .80 | .85 | .81 |

Source. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

## Autonomy and Relatedness Inventory

## (ARIA)

FOR SPOUSES OR PARTNERS ONLY:

0. DOES RESPONDENT HAVE SPOUSE/PARTNER?

0 NO (GO TO NEXT FORM)

1 YES

Here are some statements that might describe your relationship with your husband or boyfriend. Now look at this card and tell me how well each statement describes him, by telling me if it is:

**(HAND CARD)**
1 = not at all like him,
2 = very little like him,
3 = somewhat like him,
4 = much like him, or
5 = very much like him
-- = no response

| | NAAL | VLL | SL | ML | VML | NR |
|---|---|---|---|---|---|---|
| 1. Talks over his problems with me. | 1 | 2 | 3 | 4 | 5 | -- |
| 2. Is always trying to change me. | 1 | 2 | 3 | 4 | 5 | -- |
| 3. Respects my opinions | 1 | 2 | 3 | 4 | 5 | -- |
| 4. Acts as though I'm in the way. | 1 | 2 | 3 | 4 | 5 | -- |
| 5. Won't take no for an answer when he wants something. | 1 | 2 | 3 | 4 | 5 | -- |
| 6. Gives me as much freedom as I want. | 1 | 2 | 3 | 4 | 5 | -- |
| 7. Is always thinking of things that would please me. | 1 | 2 | 3 | 4 | 5 | -- |
| 8. Argues back no matter what I say . | 1 | 2 | 3 | 4 | 5 | -- |
| 9. Encourages me to follow my own interests. | 1 | 2 | 3 | 4 | 5 | -- |

| | NAAL | VLL | SL | ML | VML | NR |
|---|---|---|---|---|---|---|
| 10. Makes fun of me. | 1 | 2 | 3 | 4 | 5 | -- |
| 11. Wants to have the last word on how we spend our time. | 1 | 2 | 3 | 4 | 5 | -- |
| 12. Lets me make up my own mind. | 1 | 2 | 3 | 4 | 5 | -- |
| 13. Has a good time with me. | 1 | 2 | 3 | 4 | 5 | -- |
| 14. Wants to control everything I do. | 1 | 2 | 3 | 4 | 5 | -- |
| 15. Is happy to go along with my decisions. | 1 | 2 | 3 | 4 | 5 | -- |
| 16. Says I'm a big problem. | 1 | 2 | 3 | 4 | 5 | -- |
| 17. Expects me to do everything his way. | 1 | 2 | 3 | 4 | 5 | -- |
| 18. Thinks it's okay if I disagree with him. | 1 | 2 | 3 | 4 | 5 | -- |
| 19. Asks me to share things he enjoys. | 1 | 2 | 3 | 4 | 5 | -- |
| 20. Finds fault with me. | 1 | 2 | 3 | 4 | 5 | -- |
| 21. Considers my point of view. | 1 | 2 | 3 | 4 | 5 | -- |
| 22. Doesn't think about me very much. | 1 | 2 | 3 | 4 | 5 | -- |
| 23. Lets me do anything I want to do. | 1 | 2 | 3 | 4 | 5 | -- |
| 24. Acts as if he doesn't know me when he's angry. | 1 | 2 | 3 | 4 | 5 | -- |

# Battelle Developmental Inventory Screening Test

Newborg, J., Stock, J., Wnek, L., Guidubaldi, J., Svinicki, J., Dickson, J., and Markley, A. 1984

## Description of Measure

*Purpose*

To assess key developmental skills in children from six months to eight years of age.

*Conceptual Organization*

The instrument is comprised of 96 items assessing the following five domains: Personal-Social Skills (including adult interaction, expression of feelings, self-concept, peer interaction, coping, and social role), Adaptive Behavior (including attention, eating, dressing, toileting and personal responsibility), Psychomotor Ability, Communication, and Cognition (including perceptual discrimination, memory, reasoning and academic skills and conceptual development). Sub-domain scores can be computed for Psychomotor Ability (Fine Motor Skills, Gross Motor Skills), and Communication (Expressive and Receptive Communication).

*Item Origin/Selection Process*

For each age level two items from each domain and sub-domain of the Battelle Developmental Inventory (BDI) were included in the Screening Test (BDST). Age levels were divided into six month intervals from birth to 23 months and into 12 month intervals thereafter. Item-total correlation (generally .70 or higher) and item difficulty were used to select the items. Item difficulty is defined as the percentage of children within each age level receiving full credit for an item, and was ideally as close to 75% as possible. Equal representation of complementary sub-domains (i.e., gross and fine motor) was considered.

*Materials*

Examiner's manual and screening materials (test administration booklets, forms, manuals and scoring programs) are available from the publisher. A full set of examiners' materials for the administration of the structured items may be ordered from the publisher. (See manual for details (Newborg et al., 1988).)

*Time Required*

For ages 3-5 the test requires approximately 20-30 minutes. For children younger than age 3 or older than age 5, the test requires approximately 10-15 minutes.

*Administration Method*

Ideally, structured items are administered to the child in a controlled setting while observation of the child for the non-structured items is done in a natural setting. The remaining items are assessed in a face-to-face interview with caregiver. Basal and ceiling rules are used for each domain (basal rules eliminate items that are too easy for child, while ceiling rules eliminate items that are too difficult).

*Training*

At least 4 hours of formal training are required. LONGSCAN used training materials developed at Utah State University's Early Intervention Research Center (Behl, personal communication).

**Scoring**

*Score Types*

Domains are as follows:

- Personal-Social: Items 1-20
- Adaptive: Items 21-40
- Motor: Items 41-60
- Communication: Items 61-78
- Cognition: Items 79-96

Sub-domain scores for the Motor and Communication domains are derived by adding items as follows:

- Fine Motor Skills: Items 42, 44, 46, 48, 50, 51, 52, 54, 56, 58, and 60
- Gross Motor Skills: Items 41, 43, 45, 47, 49, 53, 55, 57, and 59
- Expressive Communication: Items 62, 64, 66, 68, 70, 72, 74, 76, and 78
- Receptive Communication: Items 61, 63, 65, 67, 69, 71, 73, 75, and 77

Domain scores can be added to compute a total raw score. Raw scores are converted to

either standard scores (representing the number of standard deviations below the mean) with possible values of 0 (normal), 1 (borderline), 1.5 (developmental problem), and 2 (serious developmental delay); or to age-equivalent scores and percent age-equivalent scores.

*Score Interpretation*

Higher standard domain scores indicate more developmental delay. Age-equivalent scores indicate the age at which a raw score is average. These scores are open to misinterpretation and should therefore be used cautiously. That is, scoring at a particular age level does not mean that the child is performing like the average child of that age in that particular domain, only that the score is close to the average score of children at that age. They also do not take into account the variability in the rate at which children develop at different ages, so the age units (months) are not equal intervals in terms of performance. Percent age-equivalent scores reflect the child's mental age relative to chronological age in a metric that is frequently used in assessments of cognitive performance, with mean of 100 and SD of 15.

**Norms and/or Comparative Data**

The norming sample for the BDI and the BDST was a stratified random sample, with quotas for age, geographical region, race, and sex set to match the distributions in U.S. Census data. Subjects were drawn from a wide range of SES levels with an emphasis on middle SES. Data were also collected from a clinical sample for comparison purposes. Test administrators with differing degrees of training in, or familiarity with, assessment procedures were employed, and included elementary and preschool teachers, paraprofessionals, and assessment specialists.

**Psychometric Support**

*Reliability*

Analyses by the authors yielded high test-retest reliability coefficients, ranging from .84 to .99 (Newborg et al., 1988).

*Validity*

One-hundred sixty-four children in the norming and clinical samples were given the BDST prior to administration of the complete BDI. Correlations between the BDST sub-domain,

domain and total scores were all above .90, and all but the Cognition Domain (.92) were at or above .96. The authors concluded that performance on the screening test is an excellent predictor of performance on the complete BDI (Newborg et al., 1988).

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4: all sites

*Respondent*

Child

*Mnemonic and Version*

BSTA

*Rationale*

Developmental status on physical, cognitive, and social domains constitutes one of the primary child outcomes of interest to LONGSCAN. The selection of this instrument was based on reviews which ranked the BDST favorably in comparison to other developmental screening tests for the same age group (Glascoe, Martin, & Humphrey, 1990; Oehler-Stinnett, 1989; Paget, 1989). Other criteria included the instrument's demonstrated validity and reliability, ease of training and administration, participation of the child respondent along with caregiver report, time required for administration, and costs.

*Administration and Scoring Notes*

LONGSCAN used the complete BDST, following the standard procedures outlined in the Examiner's Manual. In addition, we used the supplemental probe questions originally developed at Utah State University's Early Intervention Research Institute to clarify responses and improve accuracy in coding.

*Raw Scores and Missing Data*

Raw scores are computed for each domain and sub-domain under the rule that a score cannot be computed if any of the component items are missing.

*Standard Scores*

Standard scores represent the number of standard deviations below the mean and are given in Table N-53 of the manual (Newborg et al., 1988). They are assigned based on the raw domain/sub-domain score (using the child's age). Standard score values are 0, 1, 1.5, and 2. When a raw score equates to two standard scores (e.g., for the Adaptive domain, age 72-83 months, a raw score of 35 would yield both a 1.5 and 2), one of the two standard scores is assigned at random.

*Age-Equivalent Scores*

Age-equivalent scores indicate the age at which a raw score is average. They are assigned based on the raw domain/sub-domain score given in Tables N-54 and N-55 of the Battelle manual. In instances where the tables give a range of age-equivalents for a given raw score, the mid-point of the range is used.

*Percent Age-Equivalents*

Percent age-equivalent scores are computed as the ratio of the raw score to chronological age in months, multiplied by 100. They are coded as missing if the age in months is zero. They can exceed 100% indicating that the child is functioning above age-level. Investigators may choose to consider raw, as well as computed, scores suspect if the Percent Age-equivalent for that domain/sub-domain is "out of range," that is, exceeds 160% or is below 40%.

**Results**

Table 1 displays the distribution of scores for children in the MW and NW sites who were younger than 4 years old at the LONGSCAN Pre-Age 4 interview. Among the MW site's total sample of 312 children were 110 (35%) who were less than six months of age at the time of the Baseline interview. They are excluded because the screening test is not appropriate for children under the age of 6 months (See Battelle manual, pp. 22-25).

**Table 1 about here**

Overall, the children tested were functioning best in the Adaptive Behavior and Communication domains, and the most poorly in the Cognition domain. However, there are

striking site differences. In general, the MW sample was higher functioning than the NW sample which may be attributable to the age differences of the samples. The majority of the MW sample was less than one year of age at the time of the initial interview, while the majority of the NW sample was between 1 and 3 years of age. The NW sample experienced the most maltreatment early in life, and there also may be a cumulative effect of exposure to maltreatment and other risk factors on developmental status among the older children. At both sites, children were most likely to have severe developmental problems in the Cognition domain. The NW sample demonstrated the fewest problems in the Adaptive Behavior domain and the MW sample in the Communication domain.

Table 2 displays the distribution of BDST standard scores at pre-Age 4 interviews (MW and NW only) by child race. The Adaptive Behavior and Communication domains showed the greatest range of scores across racial groups. Eighty percent of Black children showed no evidence of developmental delay (standard score of 0) in the Communication domain, while only 67% of White children received similar scores. Black children were also characterized by higher Adaptive Behavior functioning, with 79% scoring 0 and only 5.6% scoring 2. Hispanic children received poorer scores in the Adaptive Behavior domain, with 65% scoring 0 and 10% scoring 2.

**Table 2 about here**

Table 3 shows the distribution of BDST standard scores by study site at the Age 4 interview. Only one quarter of the children in the sample evidenced no developmental problems while nearly half of all the children were found to have indications of serious developmental delays. The remaining quarter received borderline scores that suggest further evaluation for developmental problems is warranted. These findings may be an artifact of the high-risk and maltreated samples of children. Overall, the Adaptive Behavior domain was the area in which LONGSCAN sample children demonstrated the most proficiency and the least serious delay at Age 4. The most serious developmental problems were still seen in the Cognition domain. The most serious developmental delays were seen at the SW site, where all of the children were placed in foster care by 18 months of age due to substantiated and severe maltreatment. Additionally, this site has the greatest percentage of Hispanic children living in non-English speaking homes.

**Table 3 about here**

Table 4 displays the distribution of BDST standard scores by race at the Age 4 interview. As was seen in Table 3, the overall pattern of the fewest deficits on the Adaptive Behavior domain, and the greatest number of deficits in the Cognition domain also held true for Black and Hispanic children. Scores indicating problems in the Cognitive domain (1.5 and 2) were obtained by 69% of Black children, 78% of Hispanic children, 59% of Multiracial children, 59% of children of other races, and 51% of White children. Black, White, and Multiracial children demonstrated relatively fewer deficits in the Communication domain than Hispanic children and children of other racial groups. This may reflect language and cultural differences. It is notable that an increase in developmental problems was observed for children from MW and NW. This may reflect the cumulative exposure to risk factors as children age.

**Table 4 about here**

*Validity*

Pearson correlation coefficients were calculated to compare total BDST standard scores and standard scores for the Communication and Cognition domains and total BDST standardized scores to scores on the Peabody Picture Vocabulary Test (PPVT), a measure of receptive vocabulary also administered at Age 4. Results are displayed in Table 5. Significant negative correlations indicate that as developmental delays increase, receptive vocabulary strength typically decreases for all but Hispanic children. The strongest correlations were found among White subjects and at the SO and NW sites, the sites with the highest percentage of White subjects (36.7% and 50.2% respectively). The strong correlations found at the SO site, where the majority of the sample was five years of age at the first interview, also suggest that the Communication and Cognition domains may be increasingly correlated with receptive vocabulary with age. Only one significant correlation, in the Receptive Communication sub-domain, was found among Hispanic subjects. SW and MW, the sites with the highest percentage of Hispanic subjects, had the weakest correlations throughout the Communication domain while stronger correlations were noted for the Cognition Domain and Total Scores. This may suggest that bilingual or Spanish speaking subjects, using a translated version of the instrument, had greater difficulty with the language-based tasks.

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**References and Bibliography**

Behl, D. (personal communication). Structured probes for the Battelle Developmental Inventory. Unpublished manuscript, Early Intervention Research Institute, Utah State University.

Glascoe, F. P., Martin, E. D., & Humphrey, S. (1990). Comparative review of developmental screening tests. Pediatrics, 86, 547-554.

Guidubaldi, J., & Perry, H. D. (1984). Concurrent and predictive validity of the Battelle Developmental Inventory at the first grade level. Educational and Psychological Measurement, 44, 977-985.

Koot, H. M., Van Den Oord, E. J. C. G., Verhulst, F. C., & Boomsma, D. I. (1997). Behavioral and emotional problems in young preschoolers: Cross-cultural testing of the validity of the Child Behavior Checklist/2-3. Journal of Abnormal Child Psychology, 25(3), 183-196.

Newborg, J., Stock, J. R., Wnek, L., Guidubaldi, J., Svincki, J., Dickson, J., & Markley, A. (1988). Battelle Developmental Inventory with Recalibrated Technical Data and Norms: Screening Test Examiner's Manual (2nd ed.). Allen, TX: DLM, Inc.

Oehler-Stinnett, J. (1989). Review of the Battelle Developmental Inventory. In J.C. Conoley and J.J. Kramer (Eds.), The Tenth Mental Measurements Yearbook (pp.66-70 ). Lincoln, Nebraska: University of Nebraska Press.

Paget, K. D. (1989). Review of the Battelle Developmental Inventory. In J.C. Conoley and J.J. Kramer (Eds.), The Tenth Mental Measurements Yearbook (pp.70-72 ). Lincoln, Nebraska: University of Nebraska Press.

**Table 1. Distribution of BDST Standard Subscale Scores by Site**

**Baseline (Pre-Age 4) Interview for MW & NW sites**

| Scores | N | Personal-Social Skills % | Adaptive Behavior % | Psycho-motor Ability % | Commun-ication Skills % | Cognition % | Total % |
|---|---|---|---|---|---|---|---|
| *Total* | 418 | | | | | | |
| 0 | | 44.5 | 68.7 | 62.0 | 66.5 | 42.1 | 52.4 |
| 1 | | 15.8 | 14.1 | 17.7 | 9.3 | 13.9 | 17.2 |
| 1.5 | | 17.5 | 7.4 | 14.4 | 10.1 | 10.1 | 10.3 |
| 2 | | 22.3 | 9.8 | 6.0 | 14.1 | 34.0 | 20.1 |
| *Study Site** | | | | | | | |
| *MW* | 202 | | | | | | |
| 0 | | 55.9 | 76.7 | 68.3 | 81.2 | 51.5 | 61.9 |
| 1 | | 12.4 | 14.4 | 21.3 | 7.9 | 8.4 | 16.8 |
| 1.5 | | 15.8 | 5.0 | 5.9 | 5.5 | 10.4 | 8.9 |
| 2 | | 15.8 | 4.0 | 4.5 | 5.5 | 29.7 | 12.4 |
| *NW* | 216 | | | | | | |
| 0 | | 33.8 | 61.1 | 56.0 | 52.8 | 33.3 | 43.5 |
| 1 | | 19.0 | 13.9 | 14.4 | 10.7 | 19.0 | 17.6 |
| 1.5 | | 19.0 | 9.7 | 22.2 | 14.4 | 9.7 | 11.6 |
| 2 | | 28.2 | 15.3 | 7.4 | 22.2 | 38.0 | 27.3 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.
*Children under the age of 6 months were excluded.

**Table 2. Distribution of BDST Standard Subscale Scores by Race**

**Baseline (Pre-Age 4) Interview for MW & NW sites**

| Scores | N | Personal-Social Skills % | Adaptive Behavior % | Psycho-motor Ability % | Commun-ication Skills % | Cognition % | Total % |
|---|---|---|---|---|---|---|---|
| *Child Race* | | | | | | | |
| *White* | 137 | | | | | | |
| 0 | | 46.0 | 62.8 | 62.9 | 66.9 | 48.3 | 58.3 |
| 1 | | 16.1 | 13.1 | 15.9 | 7.9 | 15.2 | 11.9 |
| 1.5 | | 16.8 | 10.2 | 15.2 | 10.9 | 10.6 | 9.3 |
| 2 | | 21.2 | 13.9 | 6.0 | 14.6 | 25.8 | 20.5 |
| *Black* | 142 | | | | | | |
| 0 | | 45.1 | 72.5 | 73.8 | 80.0 | 56.4 | 63.1 |
| 1 | | 15.5 | 14.1 | 12.8 | 3.6 | 9.2 | 16.9 |
| 1.5 | | 16.9 | 5.6 | 7.7 | 6.7 | 6.2 | 7.2 |
| 2 | | 22.5 | 7.8 | 5.6 | 9.7 | 28.2 | 12.8 |
| *Hispanic* | 35 | | | | | | |
| 0 | | 42.9 | 62.9 | 72.5 | 78.4 | 60.8 | 68.8 |
| 1 | | 11.4 | 20.0 | 11.8 | 3.9 | 5.9 | 7.8 |
| 1.5 | | 20.0 | 5.7 | 7.8 | 9.8 | 7.8 | 5.9 |
| 2 | | 25.7 | 11.4 | 7.8 | 7.8 | 25.5 | 17.6 |
| *Multiracial* | 95 | | | | | | |
| 0 | | 44.2 | 76.7 | 71.7 | 70.8 | 55.8 | 65.0 |
| 1 | | 19.0 | 13.3 | 14.2 | 13.3 | 11.7 | 12.5 |
| 1.5 | | 16.8 | 5.0 | 13.3 | 5.8 | 6.7 | 8.3 |
| 2 | | 20.0 | 5.0 | 0.8 | 10.0 | 25.8 | 14.2 |
| *Other* | 9 | | | | | | |
| 0 | | 22.2 | 73.2 | 69.8 | 73.3 | 54.1 | 62.2 |
| 1 | | 0.0 | 13.0 | 14.0 | 7.0 | 11.0 | 13.6 |
| 1.5 | | 33.3 | 5.9 | 11.3 | 8.3 | 7.9 | 8.1 |
| 2 | | 44.4 | 7.9 | 4.9 | 11.3 | 27.0 | 16.1 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.
*Note.* If standard score was 1.25, it was changed to 1.0 or 1.5 at random. Likewise if standard score was 1.75, it was changed to 1.5 or 2.0 at random.
*Children under the age of 6 months are excluded.

**Table 3. Distribution of BDST Standard Subscale Scores by Site**

**Age 4 Interview**

| Scores | N | Personal-Social Skills % | Adaptive Behavior % | Psychomotor Ability % | Communication Skills % | Cognition % | Total % |
|---|---|---|---|---|---|---|---|
| *Total* | 110 | | | | | | |
| 0 | | 30.7 | 44.5 | 38.1 | 34.6 | 26.9 | 26.1 |
| 1 | | 12.1 | 25.2 | 12.2 | 27.6 | 9.8 | 10.6 |
| 1.5 | | 10.3 | 8.5 | 9.4 | 15.3 | 9.7 | 14.1 |
| 2 | | 46.9 | 21.8 | 40.3 | 22.5 | 53.6 | 49.2 |
| *Study Site* | | | | | | | |
| *EA* | 223 | | | | | | |
| 0 | | 25.6 | 53.8 | 58.3 | 44.4 | 24.8 | 29.3 |
| 1 | | 17.9 | 24.2 | 19.3 | 35.0 | 7.2 | 10.8 |
| 1.5 | | 9.9 | 5.4 | 6.7 | 12.6 | 6.3 | 19.4 |
| 2 | | 46.6 | 16.6 | 15.7 | 8.1 | 61.7 | 40.5 |
| *MW* | 111 | | | | | | |
| 0 | | 31.3 | 43.8 | 45.0 | 30.4 | 22.3 | 25.2 |
| 1 | | 6.3 | 28.6 | 12.6 | 33.0 | 7.1 | 13.5 |
| 1.5 | | 10.7 | 10.7 | 9.9 | 22.3 | 5.4 | 11.7 |
| 2 | | 51.8 | 17.0 | 32.4 | 14.3 | 65.2 | 49.5 |
| *SO* | 215 | | | | | | |
| 0 | | 33.0 | 48.2 | 38.8 | 33.6 | 32.3 | 27.5 |
| 1 | | 7.3 | 15.6 | 11.7 | 12.9 | 15.9 | 8.7 |
| 1.5 | | 10.1 | 9.2 | 7.0 | 7.4 | 17.3 | 14.5 |
| 2 | | 49.5 | 27.1 | 42.5 | 46.1 | 34.5 | 49.3 |
| *SW* | 313 | | | | | | |
| 0 | | 26.8 | 28.8 | 18.9 | 19.6 | 15.7 | 12.3 |
| 1 | | 8.3 | 35.1 | 10.9 | 34.3 | 7.7 | 11.0 |
| 1.5 | | 10.9 | 11.5 | 12.8 | 19.9 | 10.6 | 13.9 |
| 2 | | 54.0 | 24.9 | 57.4 | 26.3 | 66.0 | 62.8 |
| *NW* | 238 | | | | | | |
| 0 | | 38.2 | 53.7 | 40.2 | 47.7 | 40.5 | 40.3 |
| 1 | | 18.7 | 20.2 | 7.5 | 23.0 | 10.7 | 10.1 |
| 1.5 | | 10.0 | 5.8 | 9.5 | 15.6 | 6.6 | 10.1 |
| 2 | | 33.2 | 20.2 | 42.7 | 13.6 | 42.1 | 39.5 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.
*Note.* If standard score was 1.25, it was changed to 1.0 or 1.5 at random. Likewise if standard score was 1.75, it was changed to 1.5 or 2.0 at random.

**Table 4. Distribution of BDST Standard Subscale Scores by Race**

**Age 4 Interview**

| Scores | N | Personal-Social Skills % | Adaptive Behavior % | Psycho-motor Ability % | Commun-ication Skills % | Cognition % | Total % |
|---|---|---|---|---|---|---|---|
| *Total* | 1107 | | | | | | |
| 0 | | 30.7 | 44.5 | 38.1 | 34.6 | 26.9 | 26.1 |
| 1 | | 12.1 | 25.2 | 12.2 | 27.6 | 9.8 | 10.6 |
| 1.5 | | 10.3 | 8.5 | 9.4 | 15.3 | 9.7 | 14.1 |
| 2 | | 46.9 | 21.8 | 40.3 | 22.5 | 53.6 | 49.2 |
| *Child Race* | | | | | | | |
| *White* | 318 | | | | | | |
| 0 | | 35.0 | 47.5 | 31.3 | 44.2 | 36.0 | 32.3 |
| 1 | | 13.3 | 22.4 | 10.4 | 26.5 | 13.4 | 11.8 |
| 1.5 | | 9.0 | 7.8 | 8.8 | 11.5 | 12.4 | 12.8 |
| 2 | | 42.7 | 22.4 | 49.7 | 17.8 | 38.2 | 43.1 |
| *Black* | 558 | | | | | | |
| 0 | | 28.3 | 45.2 | 44.2 | 31.6 | 22.4 | 24.6 |
| 1 | | 11.7 | 25.8 | 14.4 | 27.9 | 8.7 | 9.1 |
| 1.5 | | 10.8 | 7.4 | 8.7 | 14.5 | 9.7 | 15.9 |
| 2 | | 49.2 | 21.6 | 32.7 | 26.0 | 59.2 | 50.4 |
| *Hispanic* | 73 | | | | | | |
| 0 | | 26.7 | 33.8 | 24.0 | 18.9 | 14.9 | 12.3 |
| 1 | | 4.0 | 29.7 | 10.7 | 25.7 | 6.8 | 15.1 |
| 1.5 | | 9.3 | 14.9 | 16.0 | 27.0 | 5.4 | 9.6 |
| 2 | | 60.0 | 21.6 | 49.3 | 28.4 | 73.0 | 63.0 |
| *Multiracial* | 119 | | | | | | |
| 0 | | 35.8 | 43.8 | 39.2 | 35.5 | 32.2 | 28.6 |
| 1 | | 14.2 | 25.6 | 9.2 | 32.2 | 9.1 | 12.6 |
| 1.5 | | 12.5 | 9.1 | 10.8 | 17.4 | 6.6 | 11.8 |
| 2 | | 37.5 | 21.5 | 40.8 | 14.9 | 52.1 | 47.1 |
| *Other* | 23 | | | | | | |
| 0 | | 17.4 | 25.0 | 25.0 | 20.8 | 20.8 | 13.0 |
| 1 | | 21.7 | 33.3 | 4.2 | 20.8 | 4.2 | 4.3 |
| 1.5 | | 8.7 | 20.8 | 8.3 | 37.5 | 0.0 | 13.0 |
| 2 | | 52.2 | 20.8 | 62.5 | 20.8 | 75.0 | 69.6 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 5. Correlation Coefficients for Selected Domains of the BDST with the PPVT by Race and by Study Site**

**Age 4 Interview**

| | N | Communication | | | Cognition | Total Score |
|---|---|---|---|---|---|---|
| | | Receptive | Expressive | Total | | |
| *Total* | 870 | -0.39 | -0.39 | -0.40 | -0.47 | -0.39 |
| *Race* | | | | | | |
| White | 307 | -0.44 | -0.37 | -0.43 | -0.46 | -0.40 |
| Black | 357 | -0.24 | -0.31 | -0.28 | -0.42 | -0.33 |
| Hispanic | 72 | -0.27 | NS | NS | NS | NS |
| Multiracial | 112 | -0.42 | -0.34 | -0.30 | -0.47 | -0.42 |
| Other | 22 | -0.52 | -0.42 | -0.49 | -0.74 | NS |
| *Study Site** | | | | | | |
| MW | 110 | -0.36 | 0.30 | 0.34 | 0.44 | 0.36 |
| SO | 219 | 0.48 | 0.46 | 0.44 | 0.45 | 0.47 |
| SW | 301 | 0.36 | 0.38 | 0.39 | 0.54 | 0.48 |
| NW | 240 | 0.47 | 0.45 | 0.49 | 0.42 | 0.31 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.
*Note.* All coefficients presented are significant at $\underline{p} < 0.05$.
* The EA site is not included because the PPVT was not administered at the Age 4 Interview.

# CAGE Questionnaire

Ewing, J. 1984; Ewing, J. & Rouse, B. A. 1970

## Description of Measure

### *Purpose*

To quickly screen for problem drinking.

### *Conceptual Organization*

The questions were developed to be brief, easy to administer, and easy to remember with the idea that physicians could use them as a brief screening tool in a clinical setting.

The CAGE is comprised of four non-threatening questions about drinking, which loosely correspond to the acronym, "CAGE." The questions include:

Have you ever…

- Felt you ought to **C**ut down on your drinking?
- Felt **A**nnoyed by people criticizing your drinking?
- Felt bad or **G**uilty about drinking?
- Had a drink first thing in the morning (**E**ye-opener)?

### *Item Origin/Selection Process*

Item origin and selection process is described by Ewing (1984). The CAGE questions were developed in 1968 in a clinical study. Study participants were 130 randomly selected medical and surgical patients selected from a general hospital population. Each patient agreed to a lengthy interview including questions developed for the detection of alcoholism. As reported by Ewing, sixteen of the 130 patients were clearly identified as suffering from alcoholism by their own physicians (confirmed by chart review). Analyses contrasted the 16 identified alcoholics with the remainder of the sample, and four questions emerged as most useful in differentiating the two groups. The four questions were retested using a clinical population and were found to reliably distinguish alcoholics from non-alcoholics.

*Materials*

Non-copyrighted form is included in this manual. Also see Ewing (1984).

*Time Required*

2 minutes

*Administration Method*

Interviewer-administered

*Training*

Minimal

**Scoring**

*Score Types*

Yes responses are coded 1; No responses are coded 0. Responses to the four items are summed to derive a total score with values ranging from 0-4.

*Score Interpretation*

A higher score indicates greater risk for alcoholism. Mayfield and others used two or more positive responses as indicative of alcoholism or problem drinking (King, 1986; Mayfield, McLeod, & Hall, 1974).

A critical review of alcohol screening questionnaires in female patients (Bradley et al., 1998) recommended that the cutoff point for the CAGE be lowered from two to one or more positive responses. By lowering the cutoff point from two to one, sensitivity of the measure (the number of true positives) increased by as much as 20%, with only a 10% (at most) reduction in specificity (the number of true negatives).

**Psychometric Support**

*Reliability*

In a general population survey of 703 drinkers over the age of 18, a factor analysis of the CAGE indicated that the four items measure a single dimension ($\chi^2 = 1.22$, 2 df, $\underline{p} = 0.54$),

presumably problem drinking, and exhibit good internal reliability, factor loadings ranging from .55 to .92 (Smart et al., 1991).

*Validity*

The CAGE has been validated in both the US (Beresford et al., 1982) and the UK (Barrison et al., 1982; Bernadt et al., 1982; King, 1986), and research using clinical samples has indicated that the CAGE identifies most alcoholics. Early studies found that the instrument functioned most effectively at a cut-off point of two or more affirmative replies with a sensitivity of 84%, a specificity of 95%, and a positive predictive value of 45% (King, 1986; Mayfield, McLeod, & Hall, 1974). A more recent critical review of the literature has suggested that lower thresholds be used for a positive screening result for women (Bradley et. al, 1998, see Score Interpretation above).

Although the test is reported to reliably distinguish groups diagnosed as alcoholic from other clinical samples, it may produce a high number of false positives, especially individuals who formerly had drinking problems (Strang, Bradley, & Stockwell, 1989). In a comparison between the CAGE and the Clyde Bank Questionnaire (CBQ) (a disguised alcohol questionnaire), the CAGE correlated well with the CBQ for subjects who were chemically dependent on alcohol ($\underline{r} = .77$), but poorly for problem drinkers with no symptoms of physical dependence ($\underline{r} = .25$). Very few studies have examined the use of the CAGE in a general population survey and compared results with other aggregate estimates of alcohol problems (Smart et al., 1991). Saunders and Kershaw (1978, 1980) used the CAGE in a community sample and reported poor validity, with hospital records as the source of validation. However, this study was limited in that not all alcoholics or problem drinkers have clinical records confirming their behavior. It has been noted that there is probably no absolute method of validation of an alcoholism screening test, short of direct observation (King, 1986).

**LONGSCAN Use**

*Data Points*

Pre-Age 4: NW & MW sites only

Age 4: all sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

Administered as part of the Caregiver Physical Health Assessment (MHLA), as items 5-8.

*Rationale*

LONGSCAN investigators are interested in exploring the relationship between a history of alcoholism or problem drinking and child abuse and neglect. The CAGE was chosen because it is a widely used measure that is brief and easy to administer.

*Administration and Scoring Notes*

A screening item asks if the respondent has ever consumed alcoholic beverages. Every respondent who answers "yes," to this question is then administered the CAGE questionnaire.

**Results**

*Descriptive Statistics*

Table 1 displays a breakdown of CAGE scores at the Age 4 interview by race and study site. One-third of the caregivers reported never having consumed alcoholic beverages at all. Of the participants who answered the screening question affirmatively, 40% scored 0, indicating no problems at all with the targeted drinking behaviors. Across all sites, 17 to 27% of respondents, depending on whether a cutoff point of 1 or 2 is used, had scores indicative of problem drinking. The SO site had the highest rate of abstinence (51%) among the five sites, followed by the EA site (41%). The NW site had the lowest rate of abstinence among the sites with almost one-quarter of the NW caregivers scoring 2 or higher. Black and Hispanic caregivers reported higher rates of abstinence from drinking than other racial groups.

**Table 1 about here**

*Reliability*

Internal consistency reliability was examined by computing Cronbach's alpha coefficients. (See Table 1.) Alphas were acceptable across sites and racial groups, especially for

a 4-item scale (entire sample $\alpha = .78$). One would not expect extremely high internal consistency on such a test because higher endorsement of symptoms likely reflects greater severity of alcohol abuse, that is, the presence of one symptom should not necessarily predict the presence of another.

**References and Bibliography**


Allen, J. P., Columbus, M. (1995). Assessing Alcohol Problems: A Guide for Clinicians and Researchers. Bethesda, Md: National Institutes of Health. Publication 95-3745.

Barrison, I. G., Viola, L., Mumford, J., Murray, R. M., Gordon, M, & Murray-Lyon, I. M. (1982). Detecting excessive drinking among admissions to a general hospital. Health Trends, 14, 80-83.

Beresford, T., Low, D., Hall, R., Adduci, R., & Goggans, F. (1982). A computerised biochemical profile for detection of alcoholism. Psychosomatics, 23, 713-720.

Bernadt, M. W., Taylor, C., Mumford, J., Smith, B., & Murray, R. M. (1982). Comparison of questionnaire and laboratory tests in the detection of excessive drinking and alcoholism. Lancet, 325-328.

Bradley, K. A., Boyd-Wickizer, J., Powell, S. H., & Burman, M. L. (1998). Alcohol screening questionnaires in women: A critical review. JAMA, 280(2), 166-170.

Bradley, K. A., Korell, K., McDonell, M. B., Malone, T., Fihn, S. D. (1998). Screening for problem drinking: comparison of CAGE and AUDIT. Journal of General Internal Medicine; 13, 379-388.

Bush K, Kivlahan DR, McDonell MB, Fihn SD, Bradley KA. The AUDIT Alcohol Consumption Questions (AUDIT-C): an effective brief screening test for problem drinking. Arch Intern Med. 1998;158:1789-1795.

Ewing, J. A. (1984). Detecting alcoholism: The CAGE Questionnaire. JAMA, 252, 1905-1907.

Ewing, J. A. & Rouse, B. A. (1970), Identifying the hidden alcoholic. In: Program and abstracts of the 29th International Congress on Alcohol and Drug Dependence; February 3, Sydney, Australia.

King, M. (1986). At risk among general practice attenders: Validation of the CAGE Questionnaire. Psychological Medicine, 16, 213-217.

Mayfield, D., McLeod, G., & Hall, P. (1974). The CAGE Questionnaire: Validation of a new alcoholism screening instrument. American Journal of Psychiatry, 131, 1121-1123.

Saunders, W. M., & Kershaw, P. W. (1978). Screening tests for alcoholism: Findings from a community study. British Journal of Addiction, 75, 37-41.

Smart, R. G., Adlaf, E. M., & Knoke, D. (1991). Use of the CAGE scale in a population survey of drinking. Journal of Studies on Alcohol, 52, 593-596.

Steinweg DL, Worth H. (1993). Alcoholism: the keys to the CAGE. American Journal of Medicine,94, 520-523.

Strang, J., Bradley, B., & Stockwell, T. (1989). Assessment of drug and alcohol use. In C. Thompson (Ed.), The Instruments of Psychiatric Research (pp. 211-237). New York: Wiley.

**Table 1. Frequency of CAGE Scores and Cronbach's Alpha Coefficients by Race and Study Site**

| | N | % No drinking ever | CAGE Score | | | Cronbach's α |
|---|---|---|---|---|---|---|
| | | | 0 | 1 | > 2 | |
| *Total* | 1147 | 33.3 | 39.9 | 10.2 | 16.5 | .78 |
| *Race* | | | | | | |
| White | 397 | 25.2 | 46.6 | 9.8 | 18.4 | .82 |
| Black | 584 | 37.7 | 36.1 | 10.4 | 15.7 | .77 |
| Hispanic | 82 | 41.5 | 41.4 | 4.9 | 12.2 | .86 |
| Multiracial | 37 | 24.3 | 43.3 | 16.2 | 16.2 | .63 |
| Other | 44 | 18.2 | 47.7 | 15.9 | 18.1 | .51 |
| *Study Site* | | | | | | |
| EA | 237 | 41.3 | 37.6 | 9.7 | 11.3 | .75 |
| MW | 123 | 32.5 | 40.7 | 9.8 | 17.2 | .75 |
| SO | 221 | 50.7 | 27.6 | 7.2 | 14.4 | .73 |
| SW | 316 | 30.1 | 42.7 | 11.7 | 15.5 | .79 |
| NW | 250 | 12.4 | 52.0 | 11.6 | 24.0 | .83 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

## CAGE Questionnaire

## (CAGE)

1. Do you now drink or have you ever drunk alcoholic beverages?

   0 NO (GO TO NEXT FORM)

   1 YES

2. Have you ever felt that you ought to cut down on your drinking?

   0 NO

   1 YES

3. Have you ever felt annoyed by people criticizing your drinking?

   0 NO

   1 YES

4. Have you ever felt bad or guilty about your drinking?

   0 NO

   1 YES

5. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?

   0 NO

   1 YES

# Caregiver Demographics

LONGSCAN 1991

## Description of Measure

*Purpose*

To gather demographic information from caregivers.

*Conceptual Organization*

The form begins with a series of items to gather information on the respondent's educational background, followed by the current employment status and occupations of both maternal caregivers and husbands or partners who are living in the home. Respondents are then asked to report their total family income, collapsed into a number of ranges, and to indicate each source of that income. The number of persons dependent upon this income is also gathered so that per capita household income may be calculated. The last section gathers basic demographic information including age, race, marital status, and religious affiliation and involvement.

*Materials*

Non-copyrighted form is included in this manual.

*Time Required*

10 minutes

*Administration Method*

Interviewer-administered

*Training*

Minimal

## Scoring

*Score Types*

Individual item scores are most useful. Occupational status is scored using the 9-point

Hollingshead Occupational Scale (Hollingshead, 1975). Education was measured by number of years of schooling as well as by degrees or certification attained. Annual income was measured in $5,000 increments up to 'greater than $50,000 per year.'

*Score Interpretation*

The Hollingshead Occupational Scale ranges from 1 (menial jobs) to 9 (major professional jobs) (Hollingshead, 1975). Explicit coding instructions are found in the LONGSCAN scoring manual.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4, 6, 8, 12, 14: all sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

Pre-Age 4/Age 4: DEMA.

Age 6: DE6A. Modified to include questions about the educational status of the caregiver's partner. Also, the order of the questions was changed slightly.

Age 8: DEA. Caregiver race is omitted.

Age 12 & 14: DEMB. Racial/ethnic background is included again. Also asks for the number of rooms in the caregiver's home.

*Rationale*

Information gathered on this form is needed to examine research questions and variation in abuse and neglect rates by the sociodemographic characteristic of the child's caregiver(s). The Hollingshead Index (1975) is widely used as a measure of socioeconomic status.

## Results

*Race/Ethnicity*

Table 1 shows the distribution of caregiver race and percentage with English as the first language for each study site and for LONGSCAN samples combined as reported at the Age 4 interview. Overall, about half of the primary maternal caregivers were Black, and over a third were White, but racial distribution varied by site. Nearly all of the EA site's caregivers, and over half of the caregivers in the MW and SO sites, were Black. Over half of the NW sample was White and the SW sample had the greatest variability in racial composition. Fewer than 10% of all the caregivers described themselves as a member of a race or ethnic group other than Black, White, or Hispanic.

**Table 1 about here**

The SO site, the site with the lowest proportion of Hispanic caregivers, had the largest proportion of respondents with English as their first language at the Age 4 interview. Only the SW and MW sites had substantial portions of Hispanic caregivers, with 17% and 16% respectively. Accordingly, these sites had lower percentages of caregivers with English as their first language.

Table 2 shows that the racial distribution of caregivers remained stable at Age 6, except that the percentage in the other category decreased slightly. At Age 6 the percent of Black caregivers increased slightly at EA, SO, and SW, and percent Hispanic increased slightly at NW.

**Table 2 about here**

*Age Distribution*

Table 3 displays the mean age of LONGSCAN caregivers by race and site at the Age 4 and Age 6 interviews. Mean age was lowest for SO caregivers, while caregivers from the SW site have the highest mean age. The relatively high mean age of caregivers for the SW site may be due to the fact that many caregivers were foster parents, relatives, or other substitute caregivers. Higher mean age was also observed among the Hispanic caregivers. The change in caregiver age from the Age 4 interview to the Age 6 interview was expected to reflect the approximate two year interval between interviews as it does for White and Black respondents. However, the ages of the small groups of Hispanic and Multiracial caregivers changed by four

and six years respectively. Interestingly, the caregivers of Other race are younger at Age 6. Changes in primary caregiver respondents may account for these differences.

**Table 3 about here**

*Educational Attainment*

Tables 4 and 5 show selected caregiver educational attainment by race and study site, based on responses at the Age 4 and 6 interviews. About 69% of LONGSCAN caregivers had obtained a high school diploma or equivalency certificate (GED). At Age 4, Caregivers at the NW and SW sites had the highest levels of educational attainment at both interviews, while MW caregivers had the lowest. This trend for caregivers at the SW and NW sites to have the highest levels of educational attainment continues, however, it is the caregivers at the EA site rather than the MW site that have the lowest at this interview. Hispanic caregivers tended to have lower educational attainment than other racial/ethnic groups.

**Table 4 about here**

**Table 5 about here**

*Occupational Status*

Tables 6 and 7 display caregiver occupational data. At Age 4 (Table 6), approximately 32% of the caregivers were working. This percentage increased to 39% by Age 6. At both times about half of the caregivers described themselves as neither working nor looking for work. The vast majority of these classified themselves as homemakers. At Age 4, caregivers of White and Other racial designations were more likely to be employed. At Age 6, employment was still higher in these two groups and had increased to a comparable level in the Hispanic group. Black caregivers were most likely to be "unemployed, but seeking employment" at both time points.

Approximately one-quarter of the EA, MW, and SO caregivers were unemployed and looking for work at the time of the Age 4 interview. The proportion of caregivers at the SW and NW sites who were looking for work at the time of both the Age 4 and Age 6 interview was relatively low.

Among the caregivers who were employed, the distribution of occupational status did not

change substantially across the two interview times. There was a slight decrease (4%) in those with Level 4 or 5 jobs (skilled workers; clerical; sales) with a similar increase (3%) in those with Level 6-9 (technicians; semi-professionals; managers; professionals) jobs from Age 4 to Age 6. (Levels 1-3 on the Hollingshead Occupational Scale include menial service and unskilled or semi-skilled labor (Hollingshead, 1975).) The proportion of caregivers in the lowest level jobs (approximately 43%) remained stable.

**Table 6 about here**

**Table 7 about here**

The data for occupational status of the caregivers' spouses/partners are not tabulated here. However, of those with a spouse or partner at Age 4 (n = 412), only 1/3 of the partners had full-time employment.

*Income and Financial Assistance*

Tables 8 and 9 display data related to family income and financial assistance by race and study site. On average, LONGSCAN families had slightly more than 4 household members dependent upon the family's total yearly income. For the Hispanic families, the number of dependents was closer to 5, at both interviews. These numbers remained stable over time.

**Table 8 about here**

**Table 9 about here**

The median annual family income for LONGSCAN households was between $10,000-$15,000 at the Age 4 interview. While the median family income and the proportion of families earning less than $5000 per year did not change very much from Age 4 to Age 6, the percentage of families earning more than $40,000 increased from Age 4 to Age 6. It is also worth noting that the percentage of families receiving Aid for Families with Dependent Children (AFDC) decreased by 8% between the Age 4 and 6 interviews. Welfare reform initiatives that took place in the midst of the Age 6 data collection period may account for some of the decline.

Black families were more likely to earn less than $5000 per year than any other racial group. All racial groups except Black families saw a decline in this indicator of extreme poverty by the Age 6 interview. This may be attributable, in part, to changes in marital status (the number of single/never married mothers decreased from Age 4 to Age 6) and to mothers reentering the labor force as their children started school.

EA, one of the sites with a large proportion of Black participants, had much lower family incomes than any of the other sites at the Age 4 and Age 6 interviews. At the EA site, close to one-quarter of the families had annual incomes of less than $5000 at both Age 4 and Age 6, compared to NW and SW where the same statistic was less than 4%. SW was the only site where a significant proportion (22%) of families reported earning more than $40,000 per year at both time points. The relatively high income status of SW caregivers combined with the observation that a significant number were receiving AFDC benefits may be due to the fact that many caregivers were foster parents, relatives, or other guardians.

*Marital Status*

Tables 10 and 11 provide data on caregiver marital status. Overall, approximately 40% of the maternal caregivers reported that they were single and had never married, while almost 35% were currently married. The remaining 25% were divorced, separated, or widowed. The proportion of caregivers who were divorced or widowed increased slightly from Age 4 to Age 6. The proportion of White and Hispanic caregivers who had never married (approximately 23% at Age 4) was much lower than the proportion for Blacks (60%). Black caregivers had strikingly different marital status characteristics from other groups: They were more likely to be single or widowed, and were less likely to be divorced. Among the sites, SW caregivers were most likely to be married. This may be a reflection of the large proportion of substitute, and older, caregivers at this site.

**Table 10 about here**

**Table 11 about here**

*Religious Affiliation*

Tables 12 and 13 present data on the religious characteristics of the caregivers at each of the three interview points. Twenty-nine percent of LONGSCAN caregivers reported having no religious affiliation at Age 4. This percentage dropped to 16% at Age 6. Of those who reported religious affiliation, more than 40% reported being Protestant at the Age 4 interview. This proportion increased to greater than 60% by the Age 6 interview. The category "Other" affiliation included Judaism, Islam, Christian non-denominational respondents. Black and Hispanic caregivers consistently report attending church more regularly than other caregivers. The SW site reported the highest frequency of church attendance.

**Table 12 about here**

**Table 13 about here**

**References and Bibliography**

Hollingshead, A. B. (1975). Four-factor Index of Social Status. Unpublished manuscript, Yale University, New Haven, CT.

**Table 1. Race/Ethnicity of Caregivers by Study Site**

**Age 4 Interview**

| | N | % White | % Black | % Hispanic | % Multiracial | % Other | % English 1st Language |
|---|---|---|---|---|---|---|---|
| *Total* | 1148 | 34.7 | 50.9 | 7.2 | 3.2 | 3.9 | 95.5 |
| *Study Site* | | | | | | | |
| EA | 236 | 5.1 | 92.4 | 0.4 | 0.4 | 1.2 | 98.3 |
| MW | 123 | 25.2 | 51.2 | 16.3 | 4.9 | 2.4 | 91.9 |
| SO | 221 | 38.0 | 60.6 | 0.5 | 0.5 | 0.5 | 99.5 |
| SW | 318 | 35.5 | 35.8 | 17.3 | 3.8 | 7.3 | 89.6 |
| NW | 250 | 63.2 | 22.0 | 2.4 | 6.8 | 5.6 | 98.4 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. Race/Ethnicity of Caregivers by Study Site**

**Age 6 Interview**

| | N | % White | % Black | % Hispanic | % Multiracial | % Other |
|---|---|---|---|---|---|---|
| *Total* | 1167 | 33.4 | 53.8 | 7.5 | 2.8 | 2.5 |
| *Study Site* | | | | | | |
| EA | 251 | 5.2 | 94.4 | 0.0 | 0.4 | 0.0 |
| MW | 166 | 24.1 | 53.0 | 18.1 | 3.0 | 1.8 |
| SO | 220 | 35.5 | 64.6 | 0.0 | 0.0 | 0.0 |
| SW | 296 | 37.5 | 37.5 | 16.9 | 3.0 | 5.1 |
| NW | 234 | 63.3 | 21.4 | 3.0 | 7.7 | 4.7 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

**Table 3. Age Distribution of Caregivers by Study Site**

**Age 4 and Age 6 Interviews**

| | AGE 4 | | AGE 6 | |
|---|---|---|---|---|
| | **N** | **M (SD)** | **N** | **M (SD)** |
| *Total* | 1143 | 33.03 (10.53) | 1166 | 34.65 (11.08) |
| *Study Site* | | | | |
| EA | 234 | 29.78 ( 8.09) | 250 | 32.29 (10.31) |
| MW | 122 | 28.47 ( 6.37) | 166 | 31.58 (6.99) |
| SO | 221 | 28.42 ( 8.82) | 219 | 30.73 ( 9.63) |
| SW | 316 | 40.86 (10.83) | 297 | 41.12 (12.36) |
| NW | 249 | 32.45 (4.10) | 234 | 34.81 (10.23) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97

**Table 4. Caregiver Educational Attainment by Race and Study Site**

**Age 4 Interview**

| | N | % Less than HS | % HS Diploma/ GED | % Some College |
|---|---|---|---|---|
| *Total* | 1148 | 31.6 | 41.7 | 26.7 |
| *Race* | | | | |
| White | 398 | 25.7 | 43.1 | 31.2 |
| Black | 584 | 34.0 | 43.6 | 22.5 |
| Hispanic | 83 | 45.8 | 28.9 | 25.3 |
| Multiracial | 37 | 32.4 | 32.4 | 35.1 |
| Other | 44 | 25.0 | 38.6 | 36.4 |
| *Site* | | | | |
| EA | 236 | 37.7 | 47.9 | 14.4 |
| MW | 123 | 44.7 | 37.4 | 17.9 |
| SO | 221 | 39.6 | 42.3 | 18.2 |
| SW | 318 | 25.5 | 34.0 | 40.6 |
| NW | 250 | 20.1 | 47.4 | 32.5 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 5. Caregiver Educational Attainment by Race and Study Site**

**Age 6 Interview**

| | N | % Less than HS | % HS Diploma/ GED | % Some College |
|---|---|---|---|---|
| *Total* | 1168 | 31.7 | 39.3 | 29.0 |
| *Race* | | | | |
| White | 390 | 23.1 | 40.5 | 36.4 |
| Black | 628 | 36.2 | 38.5 | 25.3 |
| Hispanic | 87 | 42.5 | 35.6 | 21.8 |
| Multiracial | 33 | 21.2 | 45.5 | 33.3 |
| Other | 29 | 31.0 | 44.8 | 24.1 |
| *Site* | | | | |
| EA | 251 | 44.2 | 38.3 | 17.5 |
| MW | 166 | 39.8 | 39.2 | 21.1 |
| SO | 220 | 38.2 | 46.4 | 15.5 |
| SW | 297 | 22.9 | 32.0 | 45.1 |
| NW | 234 | 17.5 | 43.2 | 39.3 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

**Table 6. Occupational Status of Caregiver by Race and Study Site**

**Age 4 Interview**

| | N | % Unemployed/ Seeking Work | % Employed (Full/Part-time) | Occupational status of employed caregivers | | |
|---|---|---|---|---|---|---|
| | | | | % HOS 1-3 | % HOS 4-5 | % HOS 6-9 |
| *Total* | 1148 | 16.1 | 32.2 | 42.5 | 39.1 | 18.3 |
| *Race* | | | | | | |
| White | 398 | 8.0 | 38.7 | 31.3 | 46.8 | 22.2 |
| Black | 584 | 24.8 | 27.7 | 53.4 | 30.7 | 15.9 |
| Hispanic | 83 | 4.8 | 26.6 | 54.1 | 31.6 | 13.5 |
| Multiracial | 37 | 8.1 | 29.7 | 27.3 | 63.6 | 9.1 |
| Other | 44 | 0.0 | 45.5 | 34.9 | 40.0 | 25.1 |
| *Site* | | | | | | |
| EA | 236 | 28.0 | 25.0 | 49.2 | 35.6 | 15.2 |
| MW | 123 | 26.0 | 29.2 | 36.3 | 53.1 | 11.0 |
| SO | 221 | 23.1 | 38.0 | 63.7 | 29.7 | 8.7 |
| SW | 318 | 6.6 | 34.6 | 40.2 | 30.9 | 28.6 |
| NW | 250 | 6.0 | 31.6 | 21.5 | 57.0 | 21.5 |

Source. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 7. Occupational Status of Caregiver by Race and Study Site**

**Age 6 Interview**

| | N | % Unemployed/ Seeking Work | % Employed (Full/Part-time) | Occupational status of employed caregivers | | |
|---|---|---|---|---|---|---|
| | | | | % HOS 1-3 | % HOS 4-5 | % HOS 6-9 |
| *Total* | 1167 | 13.3 | 39.1 | 44.3 | 35.9 | 19.9 |
| *Race* | | | | | | |
| White | 389 | 6.9 | 43.4 | 32.2 | 41.7 | 26.1 |
| Black | 628 | 17.5 | 36.9 | 53.2 | 32.9 | 13.9 |
| Hispanic | 87 | 13.8 | 41.4 | 38.9 | 25.0 | 36.1 |
| Multiracial | 33 | 12.1 | 18.2 | 42.9 | 42.9 | 14.3 |
| Other | 29 | 6.9 | 44.8 | 53.9 | 38.5 | 7.7 |
| *Site* | | | | | | |
| EA | 251 | 21.1 | 33.5 | 46.6 | 37.5 | 15.9 |
| MW | 166 | 24.1 | 39.2 | 47.1 | 40.0 | 12.9 |
| SO | 219 | 11.0 | 45.7 | 64.6 | 25.5 | 10.0 |
| SW | 297 | 5.7 | 39.7 | 39.3 | 31.2 | 29.5 |
| NW | 234 | 9.0 | 38.0 | 23.5 | 49.0 | 27.6 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

**Table 8. Income and Financial Assistance by Race and Study Site**

**Age 4 Interview**

| | N | Dependents M (SD) | Annual Income | | | % AFDC Recipients |
|---|---|---|---|---|---|---|
| | | | Median (k) | % <$5,000 | % >$40,000 | |
| *Total* | 1148 | 4.4 (1.7) | 10-15 | 12.0 | 9.8 | 59.1 |
| *Race* | | | | | | |
| White | 398 | 4.4 (1.7) | 15-20 | 6.8 | 13.8 | 43.7 |
| Black | 584 | 4.4 (1.8) | 10-15 | 17.6 | 5.7 | 70.7 |
| Hispanic | 83 | 4.8 (1.8) | 10-15 | 8.4 | 9.6 | 56.6 |
| Multiracial | 37 | 3.8 (1.2) | 10-15 | 2.7 | 16.2 | 70.3 |
| Other | 44 | 4.5 (2.0) | 10-15 | 0.0 | 22.7 | 40.9 |
| *Site* | | | | | | |
| EA | 236 | 4.1 (1.6) | 5-10 | 23.7 | 3.0 | 76.7 |
| MW | 123 | 4.6 (1.7) | 10-15 | 13.0 | 4.9 | 69.9 |
| SO | 221 | 4.2 (1.6) | 10-15 | 24.0 | 4.1 | 48.0 |
| SW | 318 | 4.9 (2.0) | 20-25 | 1.9 | 21.6 | 47.2 |
| NW | 250 | 4.1 (1.6) | 20-25 | 2.8 | 8.4 | 62.4 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 9. Income and Financial Assistance by Race and Study Site**

**Age 6 Interview**

| | N | Dependents M (SD) | Annual Income | | | % AFDC Recipients |
|---|---|---|---|---|---|---|
| | | | Median (k) | % <$5,000 | % >$40,000 | |
| *Total* | 1160 | 4.3 (1.7) | 10-15 | 12.7 | 11.3 | 51.4 |
| *Race* | | | | | | |
| White | 387 | 4.4 (1.7) | 15-20 | 4.7 | 19.3 | 33.9 |
| Black | 624 | 4.2 (1.8) | 10-15 | 19.5 | 5.8 | 62.5 |
| Hispanic | 87 | 4.8 (1.8) | 10-15 | 7.0 | 12.8 | 49.4 |
| Multiracial | 32 | 4.3 (1.3) | 10-15 | 0.0 | 16.7 | 57.6 |
| Other | 29 | 4.2 (1.7) | 10-15 | 3.5 | 13.8 | 44.8 |
| *Site* | | | | | | |
| EA | 250 | 3.9 (1.5) | 5-10 | 24.2 | 4.8 | 63.4 |
| MW | 166 | 4.7 (2.0) | 10-15 | 15.7 | 8.4 | 54.8 |
| SO | 219 | 4.0 (1.4) | 10-15 | 20.2 | 3.2 | 46.4 |
| SW | 293 | 4.7 (2.0) | 20-25 | 2.8 | 21.8 | 45.8 |
| NW | 232 | 4.3 (1.5) | 15-20 | 3.0 | 15.2 | 47.8 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

**Table 10. Caregiver Marital Status by Race and Study Site**

**Age 4 Interview**

| | N | Marital Status | | | | |
|---|---|---|---|---|---|---|
| | | % Single/ Never Married | % Married | % Separated | % Divorced | % Widowed |
| *Total* | 1148 | 42.3 | 34.2 | 8.3 | 13.4 | 1.7 |
| *Race* | | | | | | |
| White | 398 | 23.4 | 51.0 | 7.8 | 17.1 | 0.8 |
| Black | 584 | 59.9 | 20.2 | 7.7 | 9.4 | 2.7 |
| Hispanic | 83 | 22.9 | 51.8 | 9.6 | 14.5 | 1.2 |
| Multiracial | 37 | 40.5 | 27.0 | 13.5 | 18.9 | 0.0 |
| Other | 44 | 18.2 | 40.9 | 13.6 | 27.3 | 0.0 |
| *Site* | | | | | | |
| EA | 236 | 69.1 | 16.1 | 6.8 | 5.9 | 1.7 |
| MW | 123 | 55.3 | 29.3 | 3.3 | 11.4 | 0.8 |
| SO | 221 | 44.8 | 38.0 | 9.0 | 7.7 | 0.5 |
| SW | 318 | 18.9 | 50.6 | 9.7 | 17.0 | 3.8 |
| NW | 250 | 38.0 | 29.6 | 9.6 | 22.0 | 0.8 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 11. Caregiver Marital Status by Race and Study Site**

**Age 6 Interview**

| | N | Marital Status | | | | |
|---|---|---|---|---|---|---|
| | | % Single/ Never Married | % Married | % Separated | % Divorced | % Widowed |
| *Total* | 1168 | 41.5 | 33.8 | 7.8 | 14.0 | 2.8 |
| *Race* | | | | | | |
| White | 390 | 21.3 | 52.6 | 6.2 | 19.2 | 0.8 |
| Black | 628 | 57.2 | 19.4 | 8.9 | 10.0 | 4.5 |
| Hispanic | 87 | 25.3 | 54.0 | 5.8 | 12.6 | 2.3 |
| Multiracial | 33 | 36.4 | 36.4 | 9.1 | 18.2 | 0.0 |
| Other | 29 | 31.0 | 27.6 | 10.3 | 31.0 | 0.0 |
| *Site* | | | | | | |
| EA | 251 | 62.2 | 19.1 | 10.0 | 5.2 | 3.6 |
| MW | 166 | 56.0 | 26.5 | 5.4 | 10.2 | 1.8 |
| SO | 220 | 42.7 | 38.6 | 8.2 | 8.6 | 1.8 |
| SW | 297 | 21.9 | 46.5 | 8.1 | 18.9 | 4.7 |
| NW | 234 | 32.9 | 34.2 | 6.4 | 25.2 | 1.3 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

**Table 12. Caregiver Religious Affiliation by Race and Study Site**

**Age 4 Interview**

| | N | % Catholic | % Protestant | % Other | % "No Religious Affiliation" | Attend Religious Services... | |
|---|---|---|---|---|---|---|---|
| | | | | | | % Never | % Regularly |
| *Total* | 1148 | 12.4 | 45.7 | 12.3 | 29.2 | 26.7 | 38.8 |
| *Race* | | | | | | | |
| White | 398 | 15.1 | 46.2 | 6.8 | 31.7 | 31.7 | 33.2 |
| Black | 584 | 4.5 | 49.5 | 16.6 | 29.3 | 22.9 | 41.1 |
| Hispanic | 83 | 43.4 | 21.7 | 13.3 | 21.7 | 26.5 | 45.9 |
| Multi-racial | 37 | 16.2 | 48.6 | 5.4 | 29.7 | 40.5 | 32.4 |
| Other | 44 | 31.8 | 34.1 | 11.4 | 20.5 | 20.5 | 50.0 |
| *Site* | | | | | | | |
| EA | 236 | 10.2 | 45.4 | 11.4 | 32.2 | 27.1 | 30.1 |
| MW | 123 | 18.7 | 36.6 | 3.2 | 41.5 | 35.8 | 26.9 |
| SO | 221 | 2.7 | 63.8 | 5.9 | 27.6 | 21.7 | 41.6 |
| SW | 318 | 20.4 | 39.9 | 23.2 | 15.7 | 21.1 | 55.4 |
| NW | 250 | 9.6 | 42.0 | 9.6 | 38.8 | 33.6 | 29.2 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 13. Caregiver Religious Affiliation by Race and Study Site**

**Age 6 Interview**

| | N | % Catholic | % Protestant | % Other | % "No Religious Affiliation" | Attend Religious Services... | |
|---|---|---|---|---|---|---|---|
| | | | | | | % Never | % Regularly |
| *Total* | 1164 | 13.3 | 61.7 | 9.11 | 15.9 | 20.7 | 43.0 |
| *Race* | | | | | | | |
| White | 387 | 16.3 | 58.4 | 8.3 | 17.1 | 26.8 | 37.9 |
| Black | 627 | 4.6 | 71.3 | 8.1 | 16.0 | 17.8 | 45.4 |
| Hispanic | 87 | 58.7 | 21.8 | 12.6 | 6.9 | 12.6 | 49.4 |
| Multi-racial | 33 | 9.1 | 54.6 | 12.1 | 24.2 | 30.3 | 39.4 |
| Other | 29 | 31.0 | 27.6 | 24.1 | 17.2 | 17.2 | 41.4 |
| *Site* | | | | | | | |
| EA | 251 | 8.0 | 67.7 | 5.2 | 19.1 | 20.7 | 37.1 |
| MW | 165 | 28.5 | 57.0 | 1.2 | 13.3 | 22.0 | 39.6 |
| SO | 220 | 2.3 | 79.1 | 1.4 | 17.3 | 17.8 | 47.0 |
| SW | 296 | 18.9 | 50.7 | 20.6 | 9.8 | 13.9 | 54.7 |
| NW | 232 | 11.6 | 56.0 | 11.6 | 20.7 | 31.3 | 33.1 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

## Caregiver Demographics

## Age 4 Interview

## (DEMA)

Now, for statistical purposes, I would just like to ask a few questions about you. Starting with your education and work experience . . .

1. What is the highest grade in school or year of college that you have completed?

**(CIRCLE HIGHEST YEAR COMPLETED)**

NONE 0

ELEMENTARY-HIGH SCHOOL 1 2 3 4 5 6 7 8 9 10 11 12

COLLEGE 13 14 15 16+

GRADUATE/PROFESSIONAL 17 18 19 20+ -- NO RESPONSE

INTERVIEWER: (IF **0-12,** GO TO Q. **2**)
(IF **13-20+**, GO TO Q. **3**)

2. Did you get a high school diploma or pass a high school equivalency test?

0 NO

1 DIPLOMA

2 EQUIVALENCY TEST, GED

3. Since high school have you received any other educational or training degrees or certificates? If so, what? ( DO NOT READ LIST. RECORD **HIGHEST** LEVEL.)

0 NONE (OR PART COLLEGE)

1 VOCATIONAL CERTIFICATE

2 ASSOCIATE (A.A., JR. COLLEGE)

3 BACHELOR'S (B.A., A.B., or B.S.)

4 MASTER'S (M.A., M.S., M.S.W., etc.)

5 DOCTORAL (Ph.D., M.D., J.D., D.D.S, etc.)

**(HAND CARD)**

Are you currently *employed full-time*, *part-time*, *unemployed*, *retired and not working*, *a student*, *a homemaker*, or are you *disabled or too ill to work*?

Which of these best describes your employment status?

**(CIRCLE ONLY ONE)**

1 EMPLOYED FULL-TIME
2 EMPLOYED PART-TIME

**(IF EMPLOYED, GO TO Q. 5)**

3 UNEMPLOYED, LOOKING FOR WORK
4 RETIRED AND NOT WORKING
5 STUDENT
6 HOMEMAKER
7 DISABLED OR TOO ILL TO WORK
8 OTHER _____
(specify)

**(IF NOT EMPLOYED, GO TO NEXT PAGE)**

5. Do you have more than one job?

0 NO
1 YES

6. What kind of work do you do on your (main) job? OR What are your main duties on your job? (GET TYPE OF WORK & POSITION)

_____ (DO NOT KEY)

What kind of company or place do you work for?

_____ (DO NOT KEY)

__ __ (EMPLOYMENT CODE)

Do you have a husband or male partner who lives with you and your family?
(IF YES, ASK THE FOLLOWING QUESTIONS.
IF NO, SKIP TO THE NEXT PAGE.)

7. Is he currently *employed full-time, part-time, unemployed, retired and not working, a student, a homemaker,* or is he *disabled or too ill to work*? Which of these best describes his employment status?

**(CIRCLE ONLY ONE)**

1 EMPLOYED FULL-TIME
2 EMPLOYED PART-TIME

**(IF EMPLOYED, GO TO Q. 8)**

3 UNEMPLOYED
4 RETIRED AND NOT WORKING
5 STUDENT
6 HOMEMAKER
7 DISABLED OR TOO ILL TO WORK
8 OTHER _____
(specify)

**(IF NOT EMPLOYED, GO TO NEXT PAGE)**

8. Does he have more than one job?

0 NO
1 YES

9. What kind of work does he do on his (main) job? OR What are his main duties on his job? (GET TYPE OF WORK & POSITION)

_____ (DO NOT KEY)

What kind of company or place does he work for?

_____ (DO NOT KEY)

__ __ (EMPLOYMENT CODE)

**(HAND CARD)**

10. Here I want you to think about your **family's total income** from all sources and **after all taxes and deductions** are taken out. Could you just estimate how much it is per year or per month or per week?

Which of the following best describes your family income *after deductions?* If you don't know exactly your best guess is okay.

HELP THE RESPONDENT FOCUS ON THE APPROPRIATE COLUMN. CIRCLE THE NUMBER IN THE LEFT-HAND COLUMN THAT CORRESPONDS TO SALARY LEVEL.

| | **PER YEAR** | **PER MONTH** | **PER WEEK** |
|---|---|---|---|
| 1 | Less than $5,000 | Less than $417 | Less than $96 |
| 2 | $5,000 - $10,000 | $418 - $833 | $97 - $192 |
| 3 | $10,000-$15,000 | $834- $1250 | $193- $288 |
| 4 | $15,000-$20,000 | $1251 -$1666 | $289 - $384 |
| 5 | $20,000-$25,000 | $1667 - $2083 | $385 - $480 |
| 6 | $25,000-$30,000 | $2084 - $2500 | $481 - $576 |
| 7 | $30,000-$35,000 | $2501 - $2916 | $577 - $673 |

| | | | |
|---|---|---|---|
| 8 | $35,000-$40,000 | $2917 - $3333 | $674 - $769 |
| 9 | $40,000-$45,000 | $3334 - $3750 | $770 - $865 |
| 10 | $45,000-$50,000 | $3751 - $4166 | $866 - $961 |
| 11 | More than $50,000 | More than $4167 | More than $962 |
| -- | DON'T KNOW; NO RESPONSE | | |

11. Including yourself, children, and people over 18, how many people are dependent on this income?

__ __ = TOTAL # OF PEOPLE (2 DIGITS)

12. As I read these, tell me which ones are sources of income for your household? (CIRCLE NO, IF RESONDENT SAYS "DON'T KNOW")

| | | **NO** | **YES** |
|---|---|---|---|
| a. | Work done by you | 0 | 1 |
| b. | Work done by other adults in home | 0 | 1 |
| c. | Work done by other adults <u>not</u> in home | 0 | 1 |
| d. | Work done by children (under 18) | 0 | 1 |
| e. | Child support for any child | 0 | 1 |
| f. | AFDC | 0 | 1 |
| g. | Disability Check | 0 | 1 |
| h. | Unemployment | 0 | 1 |
| i. | Workman's Compensation | 0 | 1 |
| j. | Social Security Retirement | 0 | 1 |
| k. | Other _____ (specify) | 0 | 1 |

13. Besides the income we just talked about, does anyone in your household receive....?

| | | **NO** | **YES** |
|---|---|---|---|
| a. | Medicaid | 0 | 1 |
| b. | WIC | 0 | 1 |
| c. | Food Stamps | 0 | 1 |

14. Do you, or another member of your household, receive any housing assistance, either through public housing or another housing program?

NO 0

YES 1

Finally, I have a few questions about your background.

15. Could you give me (again) your date of birth? _____ /_____ /_____

(MO) (DAY) (YR)

16. Your social security number? __ __ __/ __ __/ __ __ __ __

17. What is the language you speak most often at home?

1 ENGLISH

2 SPANISH

3 OTHER _____

(specify)

18. Looking at this card, please tell me your racial or ethnic background.

**(HAND CARD)**

1 WHITE

2 BLACK

3 HISPANIC

4 NATIVE AMERICAN

5 ASIAN

6 MIXED RACE

7 OTHER_____

(specify)

19. What is your current legal marital status?

1 MARRIED

2 SINGLE; NEVER MARRIED

3 SEPARATED

4 DIVORCED

5 WIDOWED

20. Do you consider yourself part of a religious or spiritual group? IF SO, what type?

1 CATHOLIC

2 JEWISH

3 ISLAMIC (MOSLEM)

4 PROTESTANT: DENOMINATION?_____

5 CHRISTIAN--NON-DENOMINATIONAL

6 OTHER (specify)_____

7 NO RELIGION

21. In the last year, how often did you attend religious or spiritual services?

0 NEVER

1 ONCE OR TWICE A YEAR

2 SEVERAL TIMES A YEAR

3 SEVERAL TIMES A MONTH

4 ONCE A WEEK

5 MORE THAN ONCE A WEEK

22. How important are your religion or spiritual beliefs in the way you raise your child(ren)?

1 NOT IMPORTANT

2 SOMEWHAT IMPORTANT

3 VERY IMPORTANT

# Caregiver's History of Loss and Victimization

Hunter, W. and Everson, M. 1991

## Description of Measure

*Purpose*

To assess the primary caregiver's history of childhood loss or separation from significant others, history of physical and sexual abuse, and history of physical and sexual assault in adulthood.

*Conceptual Organization*

The items are grouped into the following categories: Loss and Separation (8 items), Child and Adolescent Physical Maltreatment (2 items), Childhood Sexual Abuse (3 items), Adolescent Sexual Abuse (3 items), Adult Physical Assault (2 items), and Adult Sexual Assault (2 items). The Loss and Separation items cover eight relationship categories: mother, father, sibling grandparent, aunt or uncle, friend, child, or other. For each relationship category the respondent is asked to indicate whether the loss of such a person prior to age 18 did not occur, occurred through permanent separation, or occurred through death. For the victimization items, the respondent is asked if an abusive event occurred (e.g., were you ever physically hurt by a parent or someone else?). When maltreatment of any type is endorsed, follow-up questions ascertain the relationship of victim to perpetrator, and the degree to which the victim was upset by the reported events, with the respondent ranking it on a 4-point scale ranging from 1 (not at all upsetting) to 4 (very upsetting).

*Item Origin/Selection Process*

This instrument was developed for a retrospective case-control study of 235 mothers of sexually abused children (Hunter & Everson, 1991; See Runyan et al. 1992), which was the follow-up study to a study of child victims as witnesses (Whitcomb et al. 1991). Based on the methodology used by Wyatt & Peters (1986), the items were designed to ask about the experiences of specific acts, selected to conform to conservative behaviorally based definitions of physical and sexual abuse, without describing the acts as "abusive", and were arranged chronologically from childhood to adulthood.

*Materials*

Non-copyrighted form is included in this manual.

*Time Required*

Approximately 5-10 minutes, depending on the number of positive responses.

*Administration Method*

Interviewer-administered

*Training*

Interviewers must be trained to respond to any history reported by respondent and to develop comfort with the sensitivity of the items. Debriefing may be necessary.

**Scoring**

*Score Types*

Scoring of items depends on the research question. For example, loss of parent-figures could be represented by summing indicators for loss of mother and loss of father.

*Score Interpretation*

Victimization rates can be compared to those of the general population or to other sub-populations.

**Psychometric Support**

*Validity*

A study based on data from the sample in which this instrument was originally implemented found that women who reported childhood physical abuse were significantly more likely to be physically and sexually victimized as adults (Hunter, Voorhorst, Runyan, & Everson, 1994). Experiences of childhood sexual abuse were significantly related to experiences of sexual assault as an adult but not physical victimization. The highest rate of adult victimization (84.8%) was observed in the group of women who had experienced both physical and sexual abuse as children (n = 59).

Other researchers have reported similar relationships between childhood abuse and subsequent partner abuse (Gilbert, El-Bassel, Schilling, & Friedman, 1997). Women who reported having experienced both childhood and adult victimization had significantly higher psychiatric symptom scores than mothers who experienced childhood abuse only.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: NW and MW sites only

Age 4: all sites

Age 6: if the maternal caregiver was different from the caregiver interviewed at Age 4 or for participants whose first interview was at Age 6.

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

LONGSCAN divided the original instrument into two instruments:

LSSA: Caregiver's History of Loss. Eight items pertaining to loss and separation.

VICA: Caregiver's History of Victimization. Twelve items about physical and sexual abuse in childhood and adulthood.

*Rationale*

The loss and victimization history of caregivers is of interest for several reasons. First, early loss of a parent, especially the mother, has been shown to relate to mental health problems, suicide, and risk for violence (Botsis, Plutchik, Kotter, & van Praag, 1995; Kendler, Neale, Kessler, Heath, & Eaves, 1992; Kendler et al., 1996; Roberts, Williams, Lawrence, & Raphael, 1998). Second, this instrument allows the investigation of hypotheses related to the intergenerational transmission of violence. For example, how do the victimization histories of mothers relate to subsequent experiences of their children? It has been suggested that exposure to abuse in one's own childhood and exposure to domestic violence in adulthood are important factors for predicting whether a mother will physically abuse her own child (Coohey & Braun,

1997). Finally, victimization experiences may also be risk factors for other maternal problems such as substance abuse.

*Administration and Scoring Notes*

No data are available for the SW site because the instrument was not administered to any caregiver at the Age 4 interview because the respondents were foster mothers. The victimization history of foster mothers was thought to be of little relevance to LONGSCAN hypotheses.

**Results**

*Caregiver history of loss*

Table 1 shows the mean number of childhood losses, due to either death or separation, reported by primary caregivers at the Age 4 interview, by race and study site. In general, the NW caregivers experienced more childhood losses than those at other sites. When loss of a parent is considered alone, multiracial caregivers had the highest report of parental loss in childhood with approximately half of the respondents reporting losing a parent. White caregivers reported higher rates of parental loss during childhood than did Black or Hispanic caregivers.

**Table 1 about here**

*Caregiver history of victimization*

Table 2 provides the frequency of specific types of childhood abuse reported by caregivers. "Fondle" indicates that someone three or more years older than the child fondled the child's breasts or genitals. "Forced fondle" indicates that someone three or more years older forced the child to fondle the older person's genitals. Mothers who identified themselves as being of mixed racial background had higher rates of sexual victimization and physical abuse.

**Table 2 about here**

Table 3 provides the frequency with which primary maternal caregivers reported physical or sexual assault by their husband or partners during their adult lives. Physical assault was more common than sexual assault with 46% of the respondents reporting physical assault and 6% reporting sexual assault. Although the vast majority of reports of physical assault were linked to

husbands or partners, reports of sexual assault (15.4% across all samples) were more likely to be linked to other perpetrators. Among racial groups, multiracial and respondents of other races had the highest rates of adult victimization, with Whites also reporting high rates (57% physically assaulted and 10% sexual assaulted). Hispanic caregivers had the lowest rates.

**Table 3 about here**

Caregivers at the NW site reported higher rates for both physical and sexual assault by husband or partners. One possible explanation for this finding is that of the four sites that collected these data, NW is the only one in which all children had been reported to CPS for abuse or neglect.

**References and Bibliography**

Botsis, A. J. , Plutchik, R., Kotler, M., & van Praag, H. M. (1995). Parental loss and family violence as correlates of suicide and violence risk. Suicide & Life Threatening Behavior, 25, 253-260.

Coohey, C., & Braun, N. (1997). Toward an integrated framework for understanding child physical abuse. Child Abuse & Neglect, 21, 1081-1094.

Gilbert, L., El-Bassel, N., Schilling, R. F., & Friedman, E. (1997). Childhood abuse as a risk for partner abuse among women on methadone maintenance. American Journal of Drug & Alcohol Abuse, 23, 581-595.

Hunter, W. M., & Everson, M. D., (1991). Mother's History of Loss and Harm. Unpublished Instrument. University of North Carolina at Chapel Hill.

Hunter, W. M., Voorhorst, S., Runyan, D. K., & Everson, M. D. (1994). Revictimization histories and psychiatric symptoms of mothers of sexually abused children. Unpublished manuscript. University of North Carolina at Chapel Hill.

Kendler, K. S., Neale, M. C., Kessler, R. C., Heath, A. C., & Eaves, L. J. (1992). Childhood parental loss and adult psychopathology in women. A twin perspective study. Archives of General Psychiatry, 49, 109-116.

Kendler, K. S., Neale, M. C., Prescott, C. A., Kessler, R. C., Heath, A. C., Corey, L. A., & Eaves, L. J. (1996). Childhood parental loss and alcoholism in women: A causal analysis using a twin-family design. Psychological Medicine, 26, 79-95.

Roberts, G. L., Williams, G. M., Lawrence, J. M., & Raphael, B. (1998). How does domestic violence affect women's mental health? Women & Health, 28(1), 117-129.

Runyan, D. K., Hunter, W. M., Everson, M. D., De Vos, E. D., Cross, T., Peeler, N., & Whitcomb, D. (1992). Maternal Support for Child Victims of Sexual Abuse: Determinants and Implications. Final Report. National Center on Child Abuse and Neglect (DHHS), Washington, DC.

Whitcomb, D., Runyan, D. K., De Vos, E., Hunter, W. M., Cross, T. P., Everson, M. D., Peeler, N. A., Porter, C. A., Toth, P.A., & Cropper, C. (1991). Child Victim as Witness Research and Developmental Program. Final report to the Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U.S. Department of Justice. Washington, DC: U. S. Government Printing Office.

Wyatt, G. E. & Peters, S. D. (1986). Methodological considerations in research on the prevalence of child abuse. Child Abuse & Neglect, 10, 241-251.

**Table 1. Number of Childhood Losses and Loss of Parents Reported by Caregivers by Race and Study Site**

| | N | Number of losses M (SD) | Loss of a parent (%) |
|---|---|---|---|
| *Total* | 1137 | 1.34 (1.39) | 26.2 |
| *Race* | | | |
| White | 395 | 1.37 (1.36) | 27.9 |
| Black | 577 | 1.30 (1.37) | 24.8 |
| Hispanic | 81 | 1.22 (1.36) | 22.2 |
| Multiracial | 37 | 1.78 (1.58) | 45.9 |
| Other | 44 | 1.23 (1.63) | 20.5 |
| *Study Site* | | | |
| EA | 234 | 1.34 (1.39) | 26.5 |
| MW | 122 | 1.30 (1.39) | 31.2 |
| SO | 218 | 1.25 (1.37) | 17.9 |
| SW | 315 | 1.20 (1.25) | 27.9 |
| NW | 248 | 1.59 (1.56) | 28.2 |

Source. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. Caregivers' Childhood Abuse Experiences by Race and Study Site**

| | N | Physical Abuse (%) | Bruised or Injured (%) | Fondled (%) | Forced Fondle (%) | Inter-course (%) | Fondled (%) | Forced Fondle (%) | Inter-course (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | as a child or teen | | as a child (< 13 y.o.) | | | as a teen | | |
| *Total* | 820 | 32.6 | 24.2 | 26.9 | 13.2 | 14.2 | 20.6 | 10.3 | 15.2 |
| *Race* | | | | | | | | | |
| White | 279 | 42.6 | 34.4 | 38.4 | 19.7 | 17.0 | 30.5 | 15.3 | 21.6 |
| Black | 465 | 23.7 | 16.3 | 18.1 | 8.8 | 12.0 | 14.4 | 7.1 | 10.5 |
| Hispanic | 28 | 46.4 | 39.3 | 28.6 | 14.3 | 17.9 | 10.7 | 7.1 | 14.3 |
| Multiracial | 25 | 56.0 | 32.0 | 52.0 | 12.0 | 24.0 | 36.0 | 16.0 | 40.0 |
| Other | 21 | 52.4 | 33.3 | 33.3 | 19.0 | 9.5 | 19.0 | 2.5 | 4.8 |
| *Study Site** | | | | | | | | | |
| EA | 235 | 18.6 | 12.3 | 21.6 | 9.4 | 14.8 | 13.6 | 7.7 | 11.0 |
| MW | 122 | 32.8 | 25.4 | 23.8 | 16.4 | 17.2 | 19.7 | 10.7 | 16.4 |
| SO | 215 | 25.5 | 21.8 | 19.9 | 8.8 | 10.2 | 15.7 | 8.3 | 7.4 |
| NW | 248 | 52.0 | 36.9 | 39.5 | 19.0 | 15.7 | 32.1 | 14.5 | 25.3 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97

*Data were not collected at the SW site because of the high percentage of maternal caregivers who were foster mothers.

**Table 3. Caregiver Report of Husband/Partner Assault by Race and Study Site**

| | N | Physical Assault (%) | Sexual Assault (%) |
|---|---|---|---|
| *Total* | 769 | 46.2 | 6.0 |
| *Race* | | | |
| White | 262 | 57.3 | 10.2 |
| Black | 443 | 38.4 | 3.3 |
| Hispanic | 25 | 28.0 | 0.0 |
| Multiracial | 23 | 73.9 | 15.8 |
| Other | 15 | 73.3 | 11.1 |
| *Study Site** | | | |
| EA | 226 | 32.3 | 2.4 |
| MW | 112 | 48.2 | 5.4 |
| SO | 197 | 37.6 | 3.5 |
| NW | 234 | 65.8 | 12.1 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97

Data were not collected at the SW site because of the high percentage of foster mothers.

## Caregiver's History of Loss
## (LSSA)

These questions are about your past history, things that may have happened to you in your lifetime.

Before you were 18, did you ever lose someone important to you--someone really close to you? This could be either through death or a permanent separation.

| | | NO | SEP | DEATH |
|---|---|---|---|---|
| 1. | mother | 0 | 1 | 2 |
| 2. | father | 0 | 1 | 2 |
| 3. | sibling | 0 | 1 | 2 |
| 4. | grandparent | 0 | 1 | 2 |
| 5. | aunt or uncle | 0 | 1 | 2 |
| 6. | friend | 0 | 1 | 2 |
| 7. | baby or child | 0 | 1 | 2 |
| 8. | OTHER _____ (specify who) | 0 | 1 | 2 |

**IF RESPONDENT IS <18 YEARS OLD, SKIP TO NEXT FORM.**

## Caregiver's History of Victimization
## (VICA)

Through other studies we are just beginning to discover how many people, women especially, were abused and mistreated at some time during their childhood or teen years.

Do you feel that you were ever abused or mistreated?
(IF YES) Can you tell me a little about it? You do not need to tell me anybody's name.

Determine **AGE** at time of abuse, **TYPE** of abuse, perp's **RELATIONSHIP** to respondent, and **AGE DIFFERENCE** when appropriate. Fill in details in the appropriate section on one of the next 4 pages. Continue to ask all specific questions in categories not already coded. In teen years, **FORCED** sexual contact by persons **3 OR MORE YEARS OLDER** should be coded.
Use space below to make notes to refer back to in order to correctly code questions on pages 12-15.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

If you don't mind, now I'd like to ask you some more specific questions about experiences you may or may not have had when you were growing up.

**WHEN YOU WERE A CHILD OR A TEENAGER . . .**

1. . . .were you ever physically hurt by a parent or someone else. . . like hit, slapped, beaten, shaken, burned, or anything like that? (DON'T COUNT SPANKING BY HAND)

**--** NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

| FOR EACH 'YES', ASK: | | | **How upsetting was it?** (HAND CARD) | | | |
|---|---|---|---|---|---|---|
| | NO | YES | **VERY** | **SOMEWHAT** | **A LITTLE** | **NOT AT ALL** |
| **A1**. Parent-figure | 0 | 1 | **A2.** 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **B2.** 4 | 3 | 2 | 1 |
| **C1.** Non-family | 0 | 1 | **C2.** 4 | 3 | 2 | 1 |

2. . . . were you ever punished or disciplined by someone in such a way that you were bruised or physically injured?

**--** NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

| FOR EACH 'YES', ASK: | | | **How upsetting was it?** (HAND CARD) | | | |
|---|---|---|---|---|---|---|
| | NO | YES | **VERY** | **SOMEWHAT** | **A LITTLE** | **NOT AT ALL** |
| **A1**. Parent-figure | 0 | 1 | **A2.** 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **B2.** 4 | 3 | 2 | 1 |
| **C1.** Non-family | 0 | 1 | **C2.** 4 | 3 | 2 | 1 |

**Interviewer:** If the mother reports any history of abuse or victimization, on any of these pages, ask whether she has received help or counseling in dealing with her feelings about the experience. If the mother has not had any such help or seems upset in discussing the experience, explore with her the possible options for receiving that help now.

**BEFORE AGE 13 . . .**

3. . . . did anyone older than you ever try or succeed in touching your breasts or genitals?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

| | NO | YES | | VERY | SOMEWHAT | A LITTLE | NOT AT ALL |
|---|---|---|---|---|---|---|---|
| **A1**. Parent-figure | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **B2.** | 4 | 3 | 2 | 1 |
| **C1.** Non-family | 0 | 1 | **C2.** | 4 | 3 | 2 | 1 |

4. . . . did anyone older than you ever try or succeed in getting you to touch their genitals?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

| | NO | YES | | VERY | SOMEWHAT | A LITTLE | NOT AT ALL |
|---|---|---|---|---|---|---|---|
| **A1**. Parent-figure | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **B2.** | 4 | 3 | 2 | 1 |
| **C1.** Non-family | 0 | 1 | **C2.** | 4 | 3 | 2 | 1 |

5. . . . did anyone ever try or succeed in having any kind of sexual intercourse with you?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

| | NO | YES | | VERY | SOMEWHAT | A LITTLE | NOT AT ALL |
|---|---|---|---|---|---|---|---|
| **A1**. Parent-figure | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **B1.** Other family | 0 | 1 | **B2.** | 4 | 3 | 2 | 1 |
| **C1.** Non-family | 0 | 1 | **C2.** | 4 | 3 | 2 | 1 |

**WHEN YOU WERE A TEEN . . .**

6. . . . did anyone ever touch your breasts or genitals, against your wishes?

**--** NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

| FOR EACH 'YES', ASK: | | | **How upsetting was it?** (HAND CARD) | | | | |
|---|---|---|---|---|---|---|---|
| | NO | YES | | **VERY** | **SOMEWHAT** | **A LITTLE** | **NOT AT ALL** |
| **A1**. Parent-figure | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **B2.** | 4 | 3 | 2 | 1 |
| **C1.** Non-family | 0 | 1 | **C2.** | 4 | 3 | 2 | 1 |

7. . . .did anyone ever force you to touch their genitals, against your wishes?

**--** NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

| FOR EACH 'YES', ASK: | | | **How upsetting was it?** (HAND CARD) | | | | |
|---|---|---|---|---|---|---|---|
| | NO | YES | | **VERY** | **SOMEWHAT** | **A LITTLE** | **NOT AT ALL** |
| **A1**. Parent-figure | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **B2.** | 4 | 3 | 2 | 1 |
| **C1.** Non-family | 0 | 1 | **C2.** | 4 | 3 | 2 | 1 |

8. . . . did anyone ever force you to have any kind of sexual intercourse against your wishes?

**--** NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

| | FOR EACH 'YES', ASK: | | | **How upsetting was it?** (HAND CARD) | | | |
|---|---|---|---|---|---|---|---|
| | NO | YES | | **VERY** | **SOMEWHAT** | **A LITTLE** | **NOT AT ALL** |
| **A1**. Parent-figure | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **B2.** | 4 | 3 | 2 | 1 |
| **C1.** Non-family | 0 | 1 | **C2.** | 4 | 3 | 2 | 1 |

**WHAT ABOUT SINCE YOU'VE BEEN AN ADULT . . .**

9. . . .have you ever been hit, slapped, beaten, or pushed around by someone?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

| | FOR EACH 'YES', ASK: | | | **How upsetting was it?** (HAND CARD) | | | |
|---|---|---|---|---|---|---|---|
| | NO | YES | | **VERY** | **SOMEWHAT** | **A LITTLE** | **NOT AT ALL** |
| **A1.** Husband/partner | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **C1.** Acquaintance | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **D1.** Stranger | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |

10. . . .have you been physically hurt or physically threatened by someone in any <u>other</u> way? If so, can you tell me about it?

-- NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

| | FOR EACH 'YES', ASK: | | | **How upsetting was it?** (HAND CARD) | | | |
|---|---|---|---|---|---|---|---|
| | NO | YES | | **VERY** | **SOMEWHAT** | **A LITTLE** | **NOT AT ALL** |
| **A1.** Husband/partner | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **C1.** Acquaintance | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **D1.** Stranger | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |

11. . . .Has anyone ever sexually assaulted or raped you?

**--** NR

0 NO -->GO TO NEXT QUESTION

1 YES-->**Who?**

FOR EACH 'YES', ASK: **How upsetting was it?** (HAND CARD)

| | NO | YES | | **VERY** | **SOMEWHAT** | **A LITTLE** | **NOT AT ALL** |
|---|---|---|---|---|---|---|---|
| **A1.** Husband/partner | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **B1.** Other family | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **C1.** Acquaintance | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |
| **D1.** Stranger | 0 | 1 | **A2.** | 4 | 3 | 2 | 1 |

# Caregiver Physical Health Assessment

LONGSCAN 1991

## Description of Measure

*Purpose*

To obtain a brief global self-report of a caregiver's recent health status.

*Conceptual Organization*

The assessment consists of three questions: one global question about current health status (Excellent, Good, Fair, or Poor), one about major illnesses in the past year, and one about the extent to which poor health affected the caregiver's ability to care for the child. The CAGE Questionnaire, an alcoholism screening tool, is included in the health assessment at the Pre-age 4 and Age 4 interviews. (See CAGE for a description of that measure.)

*Item Origin/Selection Process*

The global health rating was selected as one of the most reliable and widely used indicators of physical health (Krause & Jay 1994). The other items were chosen as indicators of the caregiver's experience of morbidity, which has implications for the ability to provide adequate care to the study child.

*Materials*

Non-copyrighted form is included in this manual.

*Time Required*

Less than 5 minutes

*Administration Method*

Interviewer-administered

*Training*

Minimal

**Scoring**

Individual items.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4, 6, 8, 12: all sites. At Age 8, the caregiver health assessment questions were incorporated into the services utilization form (SUA).

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

Pre-Age 4 and Age 4: MHLA.

Age 6: MH6A. Does not include the CAGE Questionnaire; no other modifications.

Age 8: SUA questions 24-25. The question, "Has illness affected your ability to care for your child", is omitted.

Age 12: MHLB, MHLC. B is the paper version and C is the audio-CASI version.

Age 14: MHLC.

*Rationale*

A caregiver's health may affect her ability to care for her child. The global health rating has been shown elsewhere to be one the most reliable indicators of physical health (Krause & Jay, 1994).

**Results**

The following tables show primary caregiver responses to questions about their physical health at the time of the Pre-Age 4 (Table 1), Age 4 (Table 2), and Age 6 (Table 3) interviews. Figures in the third column represent the percentage of caregivers with a recent major illness who reported that it affected their ability to care for their children.

Table 1 presents Pre-Age 4 data collected at the MW and NW sites. Approximately one-

quarter (27%) of the MW caregivers reported their health status as fair or poor, and slightly less than one–quarter (23%) had experienced a major illness in the past year. At the NW site, approximately one-third (32%) of the participants reported fair or poor health, and almost one-half (48%) reported a major illness in the past year. Of those reporting major illness at the NW site, 62% said the illness affected their ability to care for their child(ren). Analysis by racial group showed that White, Multiracial, and Other racial groups reported more problems than Blacks and Hispanics.

**Table 1 about here**

At Age 4 (Table 2) Hispanic caregivers reported poorer health status than the other racial groups, although White caregivers were more likely to report a major illness. When analyzed by site, the poorest health status on all three indicators was observed at the NW site.

**Table 2 about here**

At Age 6 (Table 3), 24.6% of the entire sample reported having fair or poor health, and 32.5% of the caregivers reported a major illness in the past year. Interestingly, there was little relationship between having had a major illness in the past year and a report of one's health as fair or poor. While Hispanic caregivers reported poorer health than caregivers of other racial groups, they were less likely to report a major illness. Caregivers from the NW site reported the worst overall health status in terms of global health ratings and the incidence of a major illness or injury.

**Table 3 about here**

*Validity*

Numerous studies have documented a relationship between physical health and mental health, particularly depression (Brown, Ahmed, Gary, & Milburn, 1995; Flaskerud & Tabora, 1998; Hays, Krishnan, George, Pieper, Flint, & Blazer, 1997; Heidrich, 1998). We examined concurrent validity of the Caregiver Physical Health Assessment by comparing scores on the four categories of the global health rating to the caregivers' mean scores on the Center for Epidemiologic Studies Depression Scale (CES-D). Primary caregivers who reported poor health

were significantly more likely to report higher depression scores compared to those who report fair, good, or excellent health ($F(3,709) = 13.8$, $p < .0001$). The mean depression score among primary caregivers reporting "poor" health was 23, compared to a mean of 10.2 among those reporting excellent health ($p = 0.0003$).

**References and Bibliography**

Brown, D. R., Ahmed, F., Gary, L. E., & Milburn, N. G. (1995). Major depression in a community of African Americans. American Journal of Psychiatry, 152, 373-378.

Flaskerud, J., & Tabora, B. (1998). Health problems of low-income female caregivers with HIV/AIDS. Health Care for Women International, 19, 23-36.

Hays, J. C., Krishnan, K. R., George, L. K., Pieper, C., Flint, E. P., & Blazer, D. G. (1997). Psychosocial and physical correlates of chronic depression, Psychiatry Research, 72, 149-159.

Heidrich, S. M. (1998). Older women's lives through time. Advances in Nursing Science, 20, 65-75.

Krause, N., & Jay, G. (1994). What do global health items measure? Medical Care, 9, 930-942.

**Table 1. Caregiver Health Status by Race and Study Site**

**Pre-Age 4 Interview (MW and NW sites)**

| | N | Health Reported as Fair or Poor % (N) | Major Illness/Injury in Past Year % (N) | Major Illness/Injury Affected Childcare % (N) |
|---|---|---|---|---|
| *Total* | 536 | 29.1 (156) | 33.2 (178) | 52.8 (94/178) |
| *Race* | | | | |
| White | 215 | 31.6 (68) | 40.9 (88) | 55.7 (49/88) |
| Black | 208 | 26.9 (56) | 28.4 (59) | 52.5 (31/59) |
| Hispanic | 52 | 19.2 (10) | 17.3 (9) | 33.3 (3/9) |
| Multiracial | 42 | 35.7 (15) | 42.9 (18) | 55.6 (10/18) |
| Other | 19 | 78.9 (15) | 21.1 (4) | 25.0 (1/4) |
| *Study Site* | | | | |
| MW | 319 | 27.3 (87) | 23.2 (74) | 40.5 (30/74) |
| NW | 217 | 31.8 (69) | 47.9 (104) | 61.5 (64/104) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. Caregiver Health Status by Race and Study Site**

**Age 4 Interview**

| | N | Health Reported as Fair or Poor % (N) | Major Illness/Injury in Past Year % (N) | Major Illness/Injury Affected Childcare % (N) |
|---|---|---|---|---|
| *Total* | 1148 | 24.7 (283) | 30.1 (345) | 47.0 (162/345) |
| *Race* | | | | |
| White | 397 | 23.9 (96) | 36.3 (144) | 53.5 (77/144) |
| Black | 584 | 24.4 (142) | 25.9 (151) | 43.0 (65/151) |
| Hispanic | 82 | 29.3 (24) | 29.3 (24) | 37.5 (9/24) |
| Multiracial | 37 | 21.6 (8) | 37.8 (14) | 28.6 (4/14) |
| Other | 44 | 27.9 (12) | 27.3 (12) | 58.3 (7/12) |
| *Study Site* | | | | |
| EA | 237 | 25.4 (60) | 23.6 (56) | 44.6 (25/56) |
| MW | 123 | 30.9 (38) | 24.4 (30) | 50.0 (15/30) |
| SO | 221 | 21.8 (48) | 21.8 (62) | 50.0 (31/62) |
| SW | 317 | 18.4 (58) | 28.2 (89) | 33.7 (30/89) |
| NW | 250 | 31.6 (79) | 43.2 (108) | 56.5 (61/108) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 3. Caregiver Health Status by Race and Study Site**

**Age 6 Interview**

| | N | Health Reported as Fair or Poor % (N) | Major Illness/Injury in Past Year % (N) | Major Illness/Injury Affected Childcare % (N) |
|---|---|---|---|---|
| *Total* | 1165 | 24.6 (287) | 32.5 (378) | 48.5 (183/378) |
| *Race* | | | | |
| White | 389 | 24.7 (96) | 38.1 (148) | 52.7 (78/148) |
| Black | 627 | 23.6 (148) | 29.2 (183) | 45.6 (83/182) |
| Hispanic | 87 | 34.5 (30) | 27.6 (24) | 58.3 (14/24) |
| Multiracial | 33 | 27.3 (9) | 45.5 (15) | 40.0 (6/15) |
| Other | 29 | 13.8 (4) | 27.6 (8) | 25.0 (2/8) |
| *Study Site* | | | | |
| EA | 250 | 23.2 (58) | 27.6 (69) | 42.0 (29/69) |
| MW | 167 | 32.3 (54) | 29.9 (50) | 62.0 (31/50) |
| SO | 220 | 20.9 (46) | 28.6 (63) | 41.3 (26/63) |
| SW | 297 | 22.9 (68) | 30.6 (91) | 46.2 (42/91) |
| NW | 234 | 26.5 (62) | 45.3 (106) | 52.8 (56/106) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 06/30/00.

## Caregiver Physical Health Assessment

## Age 4 Interview

## (MHLA)

1. Compared to others your age, would you say that your health is:

1 EXCELLENT

2 GOOD

3 FAIR

4 POOR

2. During the past year was there a period of a week or more when you had to stop or cut down on your regular work, school or housekeeping because of an illness or injury?

0 NO ---->(GO TO Q. 4)

1 YES

3. Did this condition affect your ability to care for your children?

0 NO

1 YES

The next few questions are about drinking alcoholic beverages.

4. Do you now drink or have you ever drunk alcoholic beverages?

0 NO (GO TO NEXT FORM)

1 YES

5. Have you ever felt that you ought to cut down on your drinking?

0 NO

1 YES

6. Have you ever felt annoyed by people criticizing your drinking?

0 NO

1 YES

7. Have you ever felt bad or guilty about your drinking?

0 NO

1 YES

8. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?

0 NO

1 YES

# Center for Epidemiologic Studies Depression Scale

Radloff, L. S. 1977

## Description of Measure

*Purpose*

To measure self-reported symptoms associated with depression experienced in the past week.

*Conceptual Organization*

The Center for Epidemiologic Studies Depression Scale (CES-D) includes 20 items comprising six scales reflecting major dimensions of depression: depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance.

*Item Origin/Selection Process*

The items were selected from a pool of items from previously validated depression scales (e.g., Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Gardner, 1968; Raskin, Schulterbrandt, Reatig, & McKeon, 1969; Zung, 1965). The main components of depressive symptomatology (depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance) were identified from clinical literature and factor analyses.

*Materials*

Non-copyrighted form is included in this manual. Also see Radloff (1977).

*Time Required*

5 minutes.

*Administration Method*

The CES-D may be self- or interviewer-administered. If all the respondents in a study are literate, the form may be self-administered with appropriate instructions. If the inventory is

interviewer-administered, it is helpful for the interviewer to give the respondent a card listing the response choices.

*Training*

Minimal

**Scoring**

*Score Types*

Response categories indicate the frequency of occurrence of each item, and are scored on a 4-point scale ranging from 0 (rarely or none of the time) to 3 (most or all of the time). Scores for items 4, 8, 12, and 16 are reversed before summing all items to yield a total score. Total scores can range from 0 to 60.

*Score Interpretation*

Higher scores (both item and total scores) indicate more depressive symptoms. A score of 16 or higher has been used extensively as the cut-off point for high depressive symptoms on this scale (Radloff, 1977). However, false positives on the order of 15% to 20% have resulted from use of this cut-off point, leading some researchers to suggest that a higher cut-off point be used (Boyd, Weissman, Thompson, & Myers, 1982; Zich, Attkisson, & Greenfield, 1990).

**Psychometric Support**

*Reliability*

The CES-D has been shown to be a reliable measure for assessing the number, types, and duration of depressive symptoms across racial, gender, and age categories (Knight, Williams, McGee & Olaman, 1997; Radloff, 1977; Roberts, Vernon, & Rhoades, 1989). High internal consistency has been reported with Cronbach's alpha coefficients ranging from .85 to .90 across studies (Radloff, 1977).

*Validity*

Concurrent validity by clinical and self-report criteria, as well as substantial evidence of construct validity have been demonstrated (Radloff, 1977). However, there is evidence that the

CES-D, while a useful measure of the level of depressive symptoms, may not be a good tool for screening for clinical depression or major depression (Roberts, Vernon, & Rhoades, 1989).

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4, 6, 12: all sites

Age 14: Optionally administered by sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

DEPA: Pre-Age 4, Age 4, & Age 6

DEPB: Age 12 & 14

*Rationale*

Depression is a well established risk factor for inadequate caregiving (Downey & Coyne, 1990). The CES-D was selected for the LONGSCAN study because it is one of best known and most widely used measures of depressive symptomatology in the general population, with documented reliability and validity in the published literature.

*Administration and Scoring Notes*

The CES-D was administered to primary caregivers in the LONGSCAN consortium at the Age 12 interview using an audio-computer administered self-interview (A-CASI). Prior to this administration was done using a paper and pencil format. A study comparing the administration of the CES-D by conventional versus the computerized method found no significant differences between reported means and variances of the two methods. Equivalent form reliability and internal consistency of the two CES-D forms were both very high (Gonzaelez, Spiteri, and Knowlton, 1995).

## Results

*Descriptive Statistics*

Table 1 provides the mean scores on the CES-D based on the responses of caregivers who were administered this instrument at the Age 4 and Age 6 interview by race and study site. Variation in scores are seen across racial categories and study sites. Blacks had higher scores than Whites at both interviews. Mean scores on the measure were lowest in the SW site. These lower scores are likely due to the fact that over two-thirds of the children were living with substitute caregivers (relative and non-relative guardians, and adoptive and foster parents), who presumably have greater protective resources than the biological caregivers in LONGSCAN.

**Table 1 about here**

Table 2 displays the percentages of caregivers scoring at or above the clinical cutoff point at the Age 4 and 6 interviews. Black caregivers showed the highest rates of clinical depression at both time points, while multiracial and caregivers of "other" races showed the lowest. The EA site, the sample with the greatest percentage of Black respondents, had the highest rates of clinical depression. Consistent with the results shown in Table 1, the SW site showed the lowest rates of clinical depression.

**Table 2 about here**

*Reliability*

Table 3 provides an assessment of internal consistency of the CES-D, as measured by Cronbach's alpha, for respondents at the time of the Age 4 and Age 6 interviews. Alpha coefficients are presented by race and by study site and range from .84 to .93 across the two data points. Like other researchers (See Psychometric Support.), we observed evidence of high internal consistency for the CES-D across all groups using both data points.

**Table 3 about here**

*Validity*

To assess the validity of the CES-D, we examined the relationship between scores on the CES-D and scores on two other measures: the Everyday Stressors Inventory and history of consumption of alcoholic beverages. It was hypothesized that primary caregivers who report more stress on the Everyday Stressors Inventory (at the age 4 interview) would also report higher depressive symptoms. This was supported: the estimated correlation between the two measures was .57 ($p < .0001$). We also compared the total scores on the CES-D of primary caregivers who reported having ever drunk alcoholic beverages ($M = 13.0$, $SD = 11.1$) at the Age 4 interview, to those who did not ($M = 11.25$, $SD = 10.39$). We found that caregivers reporting a history of alcoholic beverage consumption were significantly more depressed ($\chi^2$ (1, 1134) = 6.67, $p < .01$).

**References and Bibliography**


Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. Archives of General Psychiatry, 4, 561-571.

Boyd, J. H., Weissman, M. M., Thompson, W. D., & Myers, J. K. (1982). Screening for depression in a community sample. Archives of General Psychiatry, 39, 1195-1200.

Downey, G., & Coyne, C. C. (1990). Children of depressed parents: An integrative review. Psychological Bulletin, 108, 50-67.

Gardner, E. A. (1968). Development of a symptom checklist for the measurement of depression in a population. Unpublished manuscript.

Gonzalez, G. M., Spitier, C. B., & Knowlton, J. P. (1995). An exploratory study using computerized speech recognition for screening depressive symptoms. Computers in Human Behavior, 11, 85-93.

Knight , R. G., Williams, S., McGee, R., & Olaman, S. (1997). Psychometric properties of the Center for Epidemiologic Studies Depression Scale (CES-D) in a sample of women in middle life. Behavior Research & Therapy, 35(4), 373-380.

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1, 385-401.

Raskin, A., Schulterbrandt, J., Reatig, N., & McKeon, J. (1969). Replication of factors of psychopathology in interview, ward behavior, and self report ratings of hospitalized depressives. Journal of Nervous and Mental Disease, 148, 87-96.

Ritchey, F. J., La Gory, M., Fitzpatrick, K. M., and Mullis, J. (1990). A comparison of

homeless, community-wide, and selected distressed samples on the CES-Depression scale. American Journal of Public Health, 80(11), 1384-1385.

Roberts, R., Vernon, S. W., & Rhoades, H. M. (1989). Effects of language and ethnic status on reliability and validity of the CES-D with psychiatric patients. Journal of Nervous and Mental Disease, 177, 581-592.

Zich, J. M., Attkisson, C. C., & Greenfield, T. K. (1990). Screening for depression in primary clinics: the CES-D and the BDI. International Journal of Psychiatry in Medicine, 20, 259-277.

Zung, W. W. K. (1965). A self-rating depression scale. Archives of General Psychiatry, 12, 63-70.

**Table 1. Mean Scores on the CES-D by Race and by Study Site**

**Ages 4 and 6 Interviews**

| | Age 4 | | Age 6 | |
|---|---|---|---|---|
| | **N** | **M (SD)** | **N** | **M (SD)** |
| *Total* | 1147 | 12.37 (10.88) | 1169 | 11.80 (10.47) |
| *Race* | | | | |
| White | 397 | 11.38 (11.02) | 389 | 11.39 (10.85) |
| Black | 584 | 13.41 (11.05) | 627 | 12.50 (10.55) |
| Hispanic | 82 | 10.76 ( 9.22) | 87 | 10.41 ( 8.90) |
| Multiracial | 37 | 12.54 ( 8.23) | 33 | 10.03 ( 7.90) |
| Other | 44 | 10.61 (11.48) | 29 | 9.62 (9.82) |
| *Study Site* | | | | |
| EA | 237 | 14.11 (10.42) | 251 | 13.28 ( 9.93) |
| MW | 123 | 13.68 (11.78) | 167 | 12.15(10.24) |
| SO | 221 | 13.91 (11.85) | 220 | 13.53 (12.55) |
| SW | 316 | 8.72 ( 9.53) | 297 | 9.09 ( 9.14) |
| NW | 250 | 13.33 (10.56) | 234 | 11.74 (10.02) |

*Source.* Age 4: Based on data received at the LONGSCAN Coordinating by 7/8/97.
Age 6: Based on data received at the LONGSCAN Coordinating by 6/30/00.

**Table 2. Percentage of Caregivers Scoring above the Cutpoint for Clinical Depression by Race and Study Site**

**Ages 4 and 6 Interviews**

| | Age 4 | | Age 6 | |
|---|---|---|---|---|
| | **N** | **%** | **N** | **%** |
| *Total* | 1147 | 30.2 | 1169 | 29.7 |
| *Race* | | | | |
| White | 397 | 27.7 | 389 | 27.3 |
| Black | 584 | 32.9 | 627 | 31.9 |
| Hispanic | 82 | 29.3 | 87 | 29.9 |
| Multiracial | 37 | 24.3 | 33 | 24.2 |
| Other | 44 | 22.7 | 29 | 24.1 |
| *Study Site* | | | | |
| EA | 237 | 35.9 | 251 | 35.5 |
| MW | 123 | 31.7 | 167 | 31.7 |
| SO | 221 | 33.5 | 220 | 34.6 |
| SW | 316 | 18.7 | 297 | 20.2 |
| NW | 250 | 35.2 | 234 | 29.5 |

*Source.* Age 4: Based on data received at the LONGSCAN Coordinating by 7/8/97
Age 6: Based on data received at the LONGSCAN Coordinating by 6/30/00.

**Table 3. Cronbach's Alpha Coefficients for the CES-D by Race and by Study Site**

**Ages 4 and 6 Interviews**

| | **Age 4** | **Age 6** |
|---|---|---|
| *Total* | .90 | .90 |
| *Race* | | |
| White | .91 | .92 |
| Black | .89 | .89 |
| Hispanic | .86 | .87 |
| Multiracial | .84 | .85 |
| Other | .93 | .90 |
| *Study Site* | | |
| EA | .86 | .86 |
| MW | .91 | .89 |
| SO | .90 | .92 |
| SW | .90 | .89 |
| NW | .89 | .91 |

*Source*. Age 4: Based on data received at the LONGSCAN Coordinating by 7/8/97.
Age 6: Based on data received at the LONGSCAN Coordinating by 6/30/00.

## Center for Epidemiologic Studies Depression Scale (CES-D)

## (DEPA)

As I read the following statements, please tell me how often you felt or behaved this way. **IN THE LAST WEEK**. Did you feel this way:

**(HAND CARD)**

**0 = Rarely or none of the time (i.e., less than 1 day)?**

**1 = Some or a little of the time (i.e., 1-2 days)?**

**2 = Occasionally or a moderate amount of time (i.e., 3-4 days)?**

**3 = Most or all of the time (i.e., 5-7 days)?**

**-- = No response**

| | R | S | O | M | NR |
|---|---|---|---|---|---|
| 1. I was bothered by things that usually don't bother me | 0 | 1 | 2 | 3 | -- |
| 2. I did not feel like eating; my appetite was poor | 0 | 1 | 2 | 3 | -- |
| 3. I felt that I could not shake off the blues even with help from my family and friends | 0 | 1 | 2 | 3 | -- |
| 4. I felt that I was just as good as other people | 0 | 1 | 2 | 3 | -- |
| 5. I had trouble keeping my mind on what I was doing | 0 | 1 | 2 | 3 | -- |
| 6. I felt depressed | 0 | 1 | 2 | 3 | -- |
| 7. I felt that everything I did was an effort | 0 | 1 | 2 | 3 | -- |
| 8. I felt hopeful about the future | 0 | 1 | 2 | 3 | -- |
| 9. I thought my life had been a failure | 0 | 1 | 2 | 3 | -- |
| 10. I felt fearful | 0 | 1 | 2 | 3 | -- |
| 11. My sleep was restless | 0 | 1 | 2 | 3 | -- |
| 12. I was happy | 0 | 1 | 2 | 3 | -- |
| 13. I talked less than usual | 0 | 1 | 2 | 3 | -- |
| 14. I felt lonely | 0 | 1 | 2 | 3 | -- |
| 15. People were unfriendly | 0 | 1 | 2 | 3 | -- |
| 16. I enjoyed life | 0 | 1 | 2 | 3 | -- |
| 17. I had crying spells | 0 | 1 | 2 | 3 | -- |

| | | | | | |
|---|---|---|---|---|---|
| 18. I felt sad | 0 | 1 | 2 | 3 | -- |
| 19. I felt people disliked me | 0 | 1 | 2 | 3 | -- |
| 20. I could not get going | 0 | 1 | 2 | 3 | -- |

# Child Behavior Checklist/2-3

Achenbach, T. M. 1992

## Description of Measure

*Purpose*

To obtain caregivers' reports of behavior problems in 2-3 year old children in a standardized format.

*Conceptual Organization*

The Child Behavior Checklist/2-3 (CBCL/2-3) is modeled on the Behavior Problems portion of the CBCL/4-18 (See Child Behavior Checklist/4-18, Achenbach, 1991). The Behavior Problems scale consists of 100 items on which a parent, or parent surrogate, is asked to rate their child's behavior in the last two months. Selected items comprise six empirically-derived syndrome scales (Anxious/Depressed, Withdrawn, Sleep Problems, Somatic Problems, Aggressive Behavior, and Destructive Behavior). All but two of the remaining items are included in the total problem score.

In addition to focusing on a child's behavior as defined by one of the syndrome scales, the CBCL/2-3 also allows the examination of two broad groupings of syndromes: Internalizing Problems and Externalizing Problems. Internalizing combines the Withdrawn and Anxious/Depressed scales, while Externalizing combines the Destructive Behavior and Aggressive Behavior scales.

*Item Origin/Selection Process*

Items were selected from CBCL/4-18 items that appeared to be appropriate for 2- and 3-year olds. Items were further refined through pilot testing and a final version was published in 1992 (Achenbach, 1992; Achenbach, Edelbrock, and Howell, 1987). The six syndromes were derived empirically through principal components analyses. For a complete description of item derivation for the CBCL/2-3, see the Manual for the Child Behavior Checklist/2-3 and 1992 Profile (Achenbach, 1992).

*Materials*

Manual, forms, and computerized scoring programs, are available from the publisher.

*Time Required*

10-15 minutes.

*Administration Method*

The CBCL/2-3 is designed for the caregiver to complete independently. It requires only fifth grade reading skills. However, the form can also be administered orally by an interviewer who records the caregiver's answers.

*Training*

Requires thorough familiarity with the Manual, especially the cautions related to commonly misinterpreted items (Achenbach, 1992, pp.185-186).

**Scoring**

*Score Types*

Items are coded from 0 to 2 (0 = Not True; 1 = Somewhat/Sometimes True; 2 = Very True/Often True) and are based on the child's behavior in the previous two months. There are several items for which the respondent is asked to elaborate on an endorsed behavior in order to avoid improper scoring.

Total scores are computed for Behavior Problems, Internalizing Problems, and Externalizing Problems, plus scores for each of the 6 syndromes. The Checklist is not scored if more than 8 items are missing, not counting items 51, 79, or 100. If a respondent circles two numbers for an item, the item should be scored as "1" (See Achenbach, 1992).

The Total Problems score is computed by summing all items of the CBCL/2-3, except Items 51, "Overweight" and 79, "Stores things".

Raw scores can be converted to age-standardized scores (T scores having a mean = 50 and SD = 10) that can be compared with scale scores obtained from normative samples of children within the same broad age range. A minimum T score of 50 is assigned to scores that fall at midpoint percentiles of ≤50 on the competence scale and the 8 syndrome scales to permit comparison of standardized scores across scales. Raw scores on these scales will therefore reflect

greater differentiation among non-deviant subjects than T scores. The authors recommend that raw scores rather than T scores be used for statistical analyses using the syndrome and competence scales. T scores are not truncated for the Internalizing, Externalizing and Total Problems scales, however; therefore, T scores should be used in statistical analyses for these scales.

*Score Interpretation*

For the six syndrome scales, T scores less than 67 are considered in the normal range, T scores ranging from 67-70 are considered to be borderline clinical, and T scores above 70 are in the clinical range. For Total Problems, Externalizing Problems, and Internalizing Problems, T scores less than 60 are considered in the normal range, 60-63 represent borderline scores, and scores greater than 63 are in the clinical range.

**Norms and/or Comparative Data**

See Manual for gender-specific normative data.

**Psychometric Support**

*Reliability*

In development of the 1992 edition of the CBCL/2-3, test-retest reliability was supported by a mean r = .85 (n = 61) for the problem scales over an average test-retest period of 7.7 days. Mean inter-parent agreement was r =.63 across the nine scales (six syndrome and three summary scores) at age 2 (n = 64) and r = .60 at age 3 (n = 59).

*Validity*

Evidence for content, construct, and criterion-related validity is well documented. See Achenbach (1992), Chapter 5 for details.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: NW site subjects who were 2 or 3 years old at the time of their baseline interview.

*Respondent*

Primary maternal caregiver.

*Mnemonic and Version*

CBAA.

*Rationale*

The CBCL and its corollary instruments, the Teacher Report Form and the Youth Self-Report, are among the most commonly used measures of child psychopathology. This version allows the assessment of behavior problems in a standardized format as early as age 2, with the opportunity for continuing with the CBCL/4-18 at all major LONGSCAN assessments through adolescence.

*Administration and Scoring Notes*

NW is the only site that conducted baseline interviews with 2 or 3 year old children. MW children were all under the age of 2 at their baseline interview, while the children from the EA, SO, and SW sites were all 4 or 5 years old.

**Results**

*Descriptive Statistics*

Table 1 displays the mean T scores on the CBCL/2-3 Total Problems, Externalizing Problems, and Internalizing Problems scales by child's race, based on observations obtained from the 134 primary caregivers at NW with Pre-Age 4 interviews. Within this small sample, the mean scores on Externalizing Problems and Internalizing Problems were almost identical. Among racial groups, the Multiracial children had the highest scores, suggesting more behavior problems.

**Table 1 about here**

Table 2 shows the mean T scores for the six syndromes by child's race. Children in the Multiracial group had relatively high mean scores for Social Withdrawal and Somatic Problems. White children also had higher scores on the Social Withdrawal scale than on the other scales, while Black children scored highest on Destructive Behavior.

**Table 2 about here**

Tables 3 and 4 display the percentages of two- and three-year-old NW children scoring at or above the borderline clinical range on the CBCL/2-3. About 16% of the normal population of children of this age would be expected to have scores in this range on the Total, Externalizing, and Internalizing Problems scales, whereas 40% of NW children, 2.5 times this percentage, had scores at this level (See Table 3). Table 4 displays scores at or above the borderline clinical range on the six syndromes. On these scales, one would expect about 4.5% of the normal population to be scoring at T = 67 or above. Again, the NW children had scores well above the norm.

**Table 3 about here**

**Table 4 about here**

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**References and Bibliography**

Achenbach, T. M. (1991). Manual for Child Behavior Checklist/4-18 and 1991 Profile. Burlington, VT: University of Vermont, Dept. of Psychiatry.

Achenbach, T. M. (1992). Manual for Child Behavior Checklist/2-3 and 1992 Profile. Burlington, VT: University of Vermont, Dept. of Psychiatry.

Achenbach, T. M., Edelbrock, C., & Howell, C. (1987). Empirically-based assessment of the behavioral/ emotional problems of 2-3 year old children. Journal of Abnormal Child Psychology, 15, 629-650.

**Table 1. T Scores on Total Problems, Externalizing, & Internalizing By Child Race Pre-Age 4 Interview (NW site only)**

| | N | Total Problems M (SD) | Externalizing M (SD) | Internalizing M (SD) |
|---|---|---|---|---|
| *Total* | 134 | 55.5 (8.88) | 55.2 (9.25) | 55.5 (9.25) |
| White | 71 | 55.3 (8.96) | 54.6 (9.48) | 54.7 (9.08) |
| Black | 21 | 54.8 (8.46) | 53.8 (9.14) | 56.0 (9.74) |
| Hispanic | 4 | 52.5 (9.03) | 53.0 (7.07) | 52.7 (12.86) |
| Multiracial | 33 | 56.4 (9.17) | 57.3 (8.95) | 56.1 (7.03) |
| Other | 5 | 52.4 (21.45) | 55.2 (5.76) | 61.6 (10.89) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. T Scores on Syndrome Scales by Child Race**

**Pre-Age 4 Interview (NW site only)**

| | N | Anxious/ Depressed M (SD) | Social Withdrawal M (SD) | Sleep Problems M (SD) | Somatic Problems M (SD) | Aggressive Behavior M (SD) | Destructive Behavior M (SD) |
|---|---|---|---|---|---|---|---|
| *Total* | 134 | 55.9 (6.75) | 57.2 (6.91) | 56.2 (7.91) | 54.3 (5.66) | 56.7 (6.83) | 56.2 (6.90) |
| White | 71 | 56.8 (7.13) | 57.9 (7.82) | 53.8 (4.67) | 56.5 (6.10) | 56.5 (6.36) | 55.1 (6.31) |
| Black | 21 | 55.2 (5.12) | 54.0 (5.65) | 52.7 (3.40) | 51.2 (2.50) | 55.0 (10.0) | 58.0 (8.90) |
| Hispanic | 4 | 55.1 (5.90) | 56.8 (7.01) | 57.0 (10.02) | 54.5 (6.09) | 58.5 (8.16) | 56.9 (6.37) |
| Multiracial | 33 | 57.4 (7.66) | 64.4 (9.65) | 54.0 (4.06) | 61.2 (10.98) | 55.6 (3.97) | 54.2 (5.31) |
| Other | 5 | 56.1 (6.43) | 57.4 (7.21) | 55.9 (7.92) | 54.88 (6.14) | 57.1 (7.09) | 56.2 (6.63) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 3. Children at or above Borderline Clinical Range (T ≥ 60) on Total Problems, Externalizing, & Internalizing Scales**

**Pre-Age 4 Interview (NW site only)**

| | N | Total Problems % | Externalizing % | Internalizing % |
|---|---|---|---|---|
| *Total* | 134 | 39.6 | 41.8 | 40.6 |
| White | 71 | 40.8 | 42.3 | 42.3 |
| Black | 21 | 33.3 | 38.1 | 40.0 |
| Hispanic | 4 | 25.0 | 25.0 | 00.0 |
| Multiracial | 33 | 39.4 | 45.5 | 40.4 |
| Other | 5 | 60.0 | 40.0 | 60.0 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 4. Children at or above Borderline Clinical Range (T ≥ 67) on Syndrome Scales Pre-Age 4 Interview (NW site only)**

| | N | Anxious/ Depressed % | Social Withdrawal % | Sleep Problems % | Somatic Problems % | Aggressive Behavior % | Destructive Behavior % |
|---|---|---|---|---|---|---|---|
| Total | 134 | 11.1 | 19.4 | 11.2 | 9.0 | 13.4 | 11.9 |
| White | 71 | 9.9 | 18.3 | 12.7 | 5.6 | 11.3 | 12.7 |
| Black | 21 | 14.3 | 23.8 | 4.8 | 14.3 | 9.5 | 14.3 |
| Hispanic | 4 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 | 25.0 |
| Multiracial | 33 | 12.1 | 18.2 | 15.2 | 9.1 | 21.2 | 9.1 |
| Other | 5 | 20.0 | 40.0 | 0.0 | 40.0 | 0.0 | 0.0 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

# Child Behavior Checklist/4-18

Achenbach, T. M. 1991

## Description of Measure

*Purpose*

To obtain caregivers' reports of children's competencies and behavior problems in a standardized format.

*Conceptual Organization*

The Child Behavior Checklist/4-16 (CBCL/4-16) was the first of what has become a multiaxial empirically based set of measures for assessing children from parent-, teacher-, and self-reports. In 1991, The CBCL/4-16 was re-normed to include children up to 18 years of age (becoming CBCL/4-18), and eight cross-informant constructs were identified to facilitate direct comparison between problem behavior scores on the CBCL, the Teacher Report Form (TRF), and the Youth Self-Report Form (YSR) (Achenbach, 1991). All three instruments include measurement of the following eight constructs or syndromes: Social Withdrawal, Somatic Complaints, Anxiety/Depression, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, and Aggressive Behavior. The CBCL is the only measure that contains the Sex Problems scale.

In addition to focusing on a child's behavior as defined by one of the eight syndrome scales, the CBCL, TRF, and YSR also allow the examination of two broad groupings of syndromes: Internalizing Problems and Externalizing Problems. Internalizing Problems combines the Social Withdrawal, Somatic Complaints, and Anxiety/Depression scales, while Externalizing combines the Delinquent Behavior and Aggressive Behavior scales.

The three corollary instruments also contain sections addressing the area of social competence in order to determine which reported competencies discriminate between those children who are adapting successfully and those who are not. The CBCL/4-18 contains 20 competence items grouped into 3 scales (Activities, Social, and School).

A version of the CBCL/4-18, for 2 to 3 year olds (CBCL/2-3) has also been developed (see CBCL/2-3) (Achenbach, 1992; Achenbach, Edelbrock, & Howell, 1987).

*Item Origin/Selection Process*

Items were derived from research and consultation with professionals and parents, and revisions were based on the findings of numerous pilot studies. The "cross-informant" syndromes (CBCL, TRF, YSR) were obtained from evaluation of multiple principal components analyses using 89 items common to all three forms. For a complete description of item derivation for the CBCL, see the Manual for the Child Behavior Checklist/4-18 and 1991 Profile (hereafter referred to as the Manual) (Achenbach, 1991).

*Materials*

Manual, forms, and computerized scoring programs, available from the publisher.

*Time Required*

Twenty-five to thirty minutes.

*Administration Method*

The CBCL is designed to be completed independently by the caregiver. It requires only fifth grade reading ability. The form can also be administered orally by an interviewer who records the caregiver's answers.

There are several items for which the respondent is asked to elaborate about an endorsed behavior in order to avoid improper scoring.

*Training*

Requires thorough familiarity with the Manual, especially with the cautions related to commonly misinterpreted items (Manual, p. 13, pp. 249-250).

**Scoring**

*Score Types*

Items are coded from 0 to 2 and instructions for hand scoring the instrument are provided in Appendix A of the Manual.

Total scores may be computed for Social Competence, Behavior Problems, Internalizing Problems, Externalizing Problems, and Sex Problems, plus scores for each of the 8 syndrome

scales. The Total Problem score is computed by summing all items on pages 3 and 4 of the CBCL, except items 2, "Allergy" and 4, "Asthma."

The problem scales are not scored if data for more than 8 items are missing, not counting items 2, 4, 56h, and 113 (See Manual, Appendix A). If a respondent circles two numbers for a behavior problem item, the item is assigned a score of "1".

Raw scores can be converted to age-standardized scores (T scores having a mean = 50 and SD = 10) that can be compared with scores obtained from normative samples of children within the same broad age range. A minimum T score of 50 is assigned to scores that fall at midpoint percentiles of ≤50 on the competence scale and the 8 syndrome scales to permit comparison of standardized scores across scales. Raw scores on these scales will therefore reflect greater differentiation among non-deviant subjects than T scores. The authors recommend that raw scores rather than T scores be used for statistical analyses using the syndrome and competence scales. T scores are not truncated for the Internalizing, Externalizing and Total Problems scales, however; therefore, T scores should be used in statistical analyses for these scales.

*Score Interpretation*

For the syndrome scales, T scores less than 67 are considered in the normal range, T scores ranging from 67-70 are considered to be borderline clinical, and T scores above 70 are in the clinical range. Because items in the Sexual Problems syndrome scale have low prevalence rates, this scale does not lend itself to the specification of normal, borderline, and clinical ranges. However, the T score can provide a guideline as to whether the child is scoring low or high relative to a normative sample of peers.

For Total Problems, Externalizing Problems, and Internalizing Problems, T scores less than 60 are considered in the normal range, 60-63 represent borderline scores, and scores greater than 63 are in the clinical range.

*Norms and/or Comparative Data*

The CBCL/4-18 was normed on a sample of 2,368 non-handicapped 4 to 18 year old children. (Norming of school related items excluded preschool-aged children (n = 252).) The sample was chosen to be representative of children in the 48 contiguous states with respect to

SES, ethnicity, region, and urban/suburban/rural residence. None of the children in the sample had received mental health services or special remedial school classes in the 12 months preceding assessment with the CBCL/4-18. Data were obtained from caregivers in a home interview. See Manual for gender and age-specific tables.

**Psychometric Support**

*Reliability*

Test-retest reliability assessment (over a 7-day period), conducted by the author with 24 boys and 29 girls age 4-11, resulted in correlation coefficients of .87 for the Social Competence scale, and .89 for the Behavior Problems Scale. Inter-parent agreement was examined using samples of 182 boys and 141 girls age 4-11, and 156 boys and 120 girls age 12-18. These correlations were also high, ranging on average from .74 - .78 for the Social Competence scales, and from .65 - .75 on average for the Behavior Problems scales. Cronbach's alpha values for the different scales ranged from .46 on the Activities subscale to .93 on the Externalizing subscale for boys age 4-11 (N = 582), and from .54 on the Activities subscale to .93 on the Externalizing subscale for girls age 4-11 (N = 619). Among the eight syndromes, Cronbach's alpha values ranged from .62 to .92 for boys age 4-11 and from .66 to .92 for girls age 4-11.

*Validity*

Evidence for content, construct, and criterion-related validity is well documented. Construct validity was assessed by correlating CBCL scale scores with scores from the closest counterpart scales of the Conners (1973) *Parent Questionnaire* and with the Quay-Peterson (1983) *Revised Behavior Problem Checklist*, obtained from a sample of 60 clinically referred 6- to 11-year-olds. The correlations between the CBCL and the Conners syndrome scales ranged from .59 to .86. The correlations between the CBCL and the Quay-Peterson syndrome scales were similar, ranging from .59 to .88. See Chapter 6 in Manual for additional details.

**LONGSCAN Use**

*Data Points*

Ages 4, 6, 8, 10, 12 & 14

*Respondent*

Primary maternal caregiver.

*Mnemonic and Version*

Age 4 and Age 6: CBBA.

Age 8: CBB. Administration of Social Competence items was optional by site; see *Administration and Scoring Notes* below.

CBC. Screener questions were modified slightly to accommodate the computer-administered format, e.g., if caregiver responds to the question about "what sports {CHILD} likes to take part in" with "none", the screener question, "any sport?" is answered NO and the computer skips to the next question topic. Also for question 2 of the Social Competence section, "Is your child in a special class or special school?", an interviewer instruction is added (to facilitate proper scoring), specifying remedial, behavioral, or LD classes ONLY.

Age 10: CBC. Social Competence administered at all sites.

Age 12 & 14: CBBD.

*Rationale*

The CBCL is one of the most commonly used measures of child psychopathology. It also provides parallel versions for Teacher Report and Youth Self-Report, meeting the need for multiple informants. Furthermore, versions are available to assess our sample at every time point from age 2 to young adulthood. Finally, the CBCL has been normed on a national sample.

*Administration and Scoring Notes*

LONGSCAN administered the Social Competence items at Age 4 or at Age 6. At Age 8, the Social Competence section was administered at the discretion of sites for the first time. The MW, NW and SW sites chose to collect the Social Competence data at Age 8, while the EA and SO sites did not.

The author's computerized scoring program was used to generate T scores.

**Results**

Tables 1, 2 and 3 display means and standard deviations from the Age 4 interview, by

child's race and study site. Overall scores are highest on the Externalizing Problems scale and the two syndromes--Aggressive and Delinquent Behaviors--that comprise this scale. The NW and SW sites had higher mean scores than the other sites for Externalizing Problems (Table 1). The SO sample had higher Internalizing Problems scores, perhaps attributable, in part, to the fact that the SO site's children were approximately a year older than children at the other sites at the time of this interview.

**Table 1 about here**

Examination of Tables 2 and 3 reveal that racial differences were small and varied across the different syndromes.

**Table 2 about here**

**Table 3 about here**

Table 4 displays the percentage of children at or above the borderline clinical range on Total Problems, Externalizing Problems, and Internalizing Problems. Given that a T score of 60 corresponds to a percentile rank of 84 one would expect only 16% of the normal population of children this age to fall within this range of scores. While the LONGSCAN samples are within the normal range overall for Internalizing Problems scores, more than twice the number of children with Internalizing Problems have scores above the borderline clinical cut point for Externalizing Problems. The NW site had the highest number of children in the clinical range for Externalizing Problems, while the SO had the highest number of children in the clinical range for Internalizing Problems. The SO, NW, and SW sites all had high percentages of children scoring in the clinical range for Total Problems. The Multiracial children tended to score in the clinical range for all three scales more often than did children in the other racial groups.

**Table 4 about here**

Tables 5 and 6 show the percentages of children at or above the borderline clinical cut-point for the syndrome scores. One would expect to find T scores at this level in 4.5% of the normal population of children this age. On the syndromes, the LONGSCAN children

demonstrated the fewest problems in the areas of depression and somatic complaints, with all samples except for SO falling within the normal range. The SO site also had higher percentages of children in the clinical range on Social Withdrawal and Social Problems. Overall, the biggest problem areas were Aggressive Behavior and Delinquent Behavior, with more than three times the number of children rated in the clinical range than would be expected in a normal population. Among the five sites, the NW site had the highest number of children in the clinical range.

**Table 5 about here**

**Table 6 about here**

Tables 7, 8, and 9 report CBCL scores at or above the clinical cutpoint at the Age 6 interview. Compared with Age 4, the percentage of children in the clinical range for Total Problems and Externalizing Problems remained stable at around 32% (twice the rate expected in a normal population). The number of children with Internalizing Problems increased from around 14% to 20%. All sites but the EA showed an increase in the number of children with Internalizing Problems. On the scales, the scores remained high at all sites for Aggressive and Delinquent Behavior, especially at the SW and NW sites.

**Table 7 about here**

**Table 8 about here**

**Table 9 about here**

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**References and Bibliography**

Achenbach, T. M. (1991). Manual for Child Behavior Checklist/ 4-18 and 1991 Profile. Burlington, VT: University of Vermont, Dept. of Psychiatry.

Achenbach, T. M. (1992). Manual for Child Behavior Checklist/ 2-3 and 1992 Profile. Burlington, VT: University of Vermont, Dept. of Psychiatry.

Achenbach, T. M., Edelbrock, C., & Howell, C. (1987). Empirically-based assessment of the behavioral/ emotional problems of 2-3 year old children. Journal of Abnormal Child Psychology, 15, 629-650.

Achenbach. T. M., & Edelbrock, C. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged 4- 16. Monographs of the Society for Research in Child Development, 46, (88).

**Table 1. T Scores for Total, Externalizing, & Internalizing Problems by Child's Race and Study Site**

**Age 4 Interview**

| | N | Total Problems M (SD) | Externalizing Problems M (SD) | Internalizing Problems M (SD) |
|---|---|---|---|---|
| *Total* | | 54.21 (10.51) | 55.53 (10.79) | 49.23 ( 9.53) |
| *Race* | 1121 | | | |
| White | 315 | 54.86 (10.88) | 56.07 (11.09) | 49.60 ( 9.54) |
| Black | 579 | 53.89 (10.46) | 55.36 (10.74) | 49.05 ( 9.56) |
| Hispanic | 79 | 52.82 ( 9.92) | 54.28 (10.10) | 47.94 ( 9.21) |
| Multiracial | 123 | 55.41 (10.25) | 56.66 (10.51) | 49.81 ( 9.79) |
| Other | 24 | 52.00 ( 9.76) | 51.00 (10.91) | 50.17 ( 8.72) |
| *Study Site* | | | | |
| EA | 230 | 52.57 (10.33) | 54.20 (10.66) | 48.26 ( 9.13) |
| MW | 121 | 52.01 ( 9.62) | 53.64 (10.43) | 48.26 ( 7.49) |
| SO | 221 | 55.56 (10.64) | 55.71 (10.73) | 52.29 (10.18) |
| SW | 317 | 54.58 (10.78) | 56.16 (11.07) | 48.41 ( 9.92) |
| NW | 232 | 55.19 (10.35) | 56.77 (10.61) | 48.92 ( 9.15) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. T Scores on Selected Syndromes by Race and Study Site**

**Age 4 Interview**

| | N | Anxious/ Depressed M (SD) | Social Withdrawal M (SD) | Social Problems M (SD) | Somatic Complaints M (SD) | Thought Problems M (SD) |
|---|---|---|---|---|---|---|
| *Total* | 1121 | 53.01 (5.38) | 54.74 (6.23) | 55.04 (6.64) | 53.5 (5.28) | 55.51 (7.40) |
| *Child Race* | | | | | | |
| White | 315 | 53.04 (5.31) | 54.73 (6.29) | 55.22 (6.83) | 54.27 (5.68) | 55.23 (7.70) |
| Black | 579 | 52.95 (5.38) | 54.76 (6.23) | 55.16 (6.70) | 53.16 (5.12) | 55.44 (7.26) |
| Hispanic | 79 | 52.61 (4.47) | 53.61 (5.80) | 53.52 (5.11) | 53.01 (4.79) | 55.34 (7.36) |
| Multiracial | 123 | 53.62 (6.22) | 55.13 (6.35) | 55.24 (6.86) | 53.46 (5.04) | 56.21 (7.08) |
| Other | 24 | 52.42 (4.61) | 56.17 (5.93) | 53.88 (5.77) | 53.75 (5.9) | 57.83 (8.82) |
| *Study Site* | | | | | | |
| EA | 230 | 52.25 (4.43) | 54.53 (5.52) | 54.06 (5.50) | 53.17 (5.13) | 54.59 (6.46) |
| MW | 121 | 52.10 (3.99) | 54.12 (5.77) | 53.33 (6.02) | 52.57 (4.05) | 55.74 (6.80) |
| SO | 221 | 54.76 (6.86) | 55.65 (7.17) | 56.52 (7.72) | 54.98 (6.31) | 54.80 (7.14) |
| SW | 317 | 52.99 (5.28) | 54.23 (6.39) | 55.45 (6.90) | 53.24 (5.21) | 55.74 (8.12) |
| NW | 232 | 52.62 (5.07) | 55.09 (5.84) | 54.92 (6.20) | 53.29 (4.78) | 56.69 (7.67) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 3. T Scores on Selected Syndromes by Race and Study Site**

**Age 4 Interview**

| | N | Aggressive Behavior M (SD) | Delinquent Behavior M (SD) | Sex Problems M (SD) | Attention Problems M (SD) |
|---|---|---|---|---|---|
| *Total* | 1121 | 58.12 (9.16) | 56.22 (7.24) | 54.11 (7.85) | 55.67 (7.45) |
| *Child Race* | | | | | |
| White | 315 | 58.83 (9.76) | 56.38 (7.38) | 54.16 (7.78) | 56.47 (7.92) |
| Black | 579 | 57.89 (9.07) | 56.29 (7.23) | 54.01 (7.85) | 55.31 (7.28) |
| Hispanic | 79 | 56.90 (7.35) | 54.90 (6.93) | 53.73 (7.77) | 54.87 (6.74) |
| Multiracial | 123 | 58.80 (9.39) | 56.77 (7.33) | 54.72 (8.19) | 56.07 (7.64) |
| Other | 24 | 55.08 (6.25) | 54.17 (5.78) | 54.38 (7.85) | 54.58 (5.63) |
| *Study Site* | | | | | |
| EA | 230 | 57.08 (8.28) | 55.53 (6.22) | 54.88 (8.02) | 53.53 (5.84) |
| MW | 121 | 56.79 (8.44) | 54.80 (6.24) | 53.24 (7.20) | 54.17 (6.59) |
| SO | 221 | 58.16 (9.69) | 56.29 (7.25) | 53.60 (7.49) | 56.93 (8.18) |
| SW | 317 | 58.79 (9.63) | 56.55 (7.80) | 54.00 (8.25) | 56.93 (8.27) |
| NW | 232 | 58.88 (9.05) | 57.13 (7.75) | 54.46 (7.76) | 55.64 (6.76) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 4. Children at or above Borderline Clinical Range (T ≥ 60) on Total Problems, Externalizing, & Internalizing Scales by Race and Study Site**

**Age 4 Interview**

| | N | Total Problems % | Externalizing Problems % | Internalizing Problems % |
|---|---|---|---|---|
| *Total* | 1121 | 30.63 | 34.73 | 14.29 |
| *Race* | | | | |
| White | 315 | 32.38 | 35.56 | 15.87 |
| Black | 579 | 29.19 | 34.89 | 13.82 |
| Hispanic | 79 | 29.11 | 27.85 | 8.86 |
| Multiracial | 123 | 34.96 | 39.02 | 16.26 |
| Other | 24 | 25.00 | 20.83 | 12.50 |
| *Study Site* | | | | |
| EA | 230 | 25.22 | 31.74 | 13.04 |
| MW | 121 | 16.53 | 28.10 | 5.79 |
| SO | 221 | 33.94 | 32.58 | 21.27 |
| SW | 317 | 33.75 | 36.91 | 13.88 |
| NW | 232 | 35.78 | 40.09 | 13.79 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 5. Children at or above Borderline Clinical Range (T ≥ 67) on Selected Syndrome Scales by Race and Study Site**

**Age 4 Interview**

| | N | Anxious/ Depressed % | Social Withdrawal % | Social Problems % | Somatic Complaints % | Thought Problems % |
|---|---|---|---|---|---|---|
| *Total* | 1121 | 3.84 | 6.34 | 7.23 | 3.75 | 10.79 |
| *Child Race* | | | | | | |
| White | 315 | 5.08 | 6.35 | 6.98 | 5.40 | 11.43 |
| Black | 579 | 3.11 | 6.22 | 7.77 | 3.45 | 10.02 |
| Hispanic | 79 | 1.27 | 3.80 | 3.80 | 2.53 | 12.66 |
| Multiracial | 123 | 5.69 | 7.32 | 8.13 | 1.63 | 9.76 |
| Other | 24 | 4.17 | 12.50 | 4.17 | 4.17 | 20.83 |
| *Study Site* | | | | | | |
| EA | 230 | 1.30 | 4.78 | 4.78 | 2.61 | 6.09 |
| MW | 121 | 0.83 | 4.13 | 4.13 | 0.83 | 9.09 |
| SO | 221 | 7.69 | 9.50 | 10.86 | 8.14 | 9.95 |
| SW | 317 | 4.42 | 5.99 | 9.15 | 4.10 | 11.99 |
| NW | 232 | 3.45 | 6.47 | 5.17 | 1.72 | 15.52 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 6. Children at or above Borderline Clinical Range (T ≥ 67) on Selected Syndrome Scales by Race and Study Site**

**Age 4 Interview**

| | N | Aggressive Behavior % | Delinquent Behavior % | Sex Problems % | Attention Problems % |
|---|---|---|---|---|---|
| *Total* | 1121 | 17.57 | 14.55 | 9.55 | 9.63 |
| *Child Race* | | | | | |
| White | 315 | 18.73 | 15.56 | 8.89 | 12.70 |
| Black | 579 | 16.75 | 13.99 | 9.67 | 7.77 |
| Hispanic | 79 | 20.25 | 13.92 | 10.13 | 10.13 |
| Multiracial | 123 | 18.70 | 16.26 | 9.76 | 12.20 |
| Other | 24 | 8.33 | 8.33 | 12.50 | 0.00 |
| *Study Site* | | | | | |
| EA | 230 | 13.48 | 8.26 | 11.74 | 4.35 |
| MW | 121 | 11.57 | 9.92 | 7.44 | 8.26 |
| SO | 221 | 18.10 | 13.12 | 7.24 | 12.22 |
| SW | 317 | 21.45 | 16.72 | 10.73 | 12.30 |
| NW | 232 | 22.34 | 21.55 | 9.05 | 9.48 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 7. Children at or above Borderline Clinical Range (T ≥ 60) on Total Problems, Externalizing, & Internalizing Scales by Race and Study Site**

**Age 6 Interview**

| | N | Total Problems % | Externalizing Problems % | Internalizing Problems % |
|---|---|---|---|---|
| *Total* | 1163 | 31.73 | 32.76 | 19.95 |
| *Child Race* | | | | |
| White | 311 | 37.62 | 36.66 | 25.08 |
| Black | 618 | 27.35 | 28.80 | 16.67 |
| Hispanic | 83 | 30.12 | 36.14 | 18.07 |
| Multiracial | 132 | 38.64 | 41.67 | 21.97 |
| Other | 19 | 36.84 | 21.05 | 36.84 |
| *Study Site* | | | | |
| EA | 250 | 26.00 | 28.80 | 13.60 |
| MW | 165 | 24.24 | 26.67 | 18.18 |
| SO | 218 | 31.65 | 26.15 | 26.15 |
| SW | 296 | 36.49 | 39.53 | 19.93 |
| NW | 234 | 37.18 | 38.89 | 22.22 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 06/30/00.

**Table 8. Children at or above Borderline Clinical Range (T ≥67) on Selected Syndrome Scales by Race and Study Site**

**Age 6 Interview**

| | N | Anxious/ Depressed % | Social Withdrawal % | Social Problems % | Somatic Complaints % | Thought Problems % |
|---|---|---|---|---|---|---|
| *Total* | 1163 | 5.50 | 6.96 | 11.95 | 5.76 | 9.72 |
| *Child Race* | | | | | | |
| White | 311 | 8.36 | 8.36 | 14.79 | 6.43 | 9.65 |
| Black | 618 | 3.88 | 6.15 | 10.03 | 5.34 | 9.55 |
| Hispanic | 83 | 3.61 | 6.02 | 9.64 | 3.61 | 7.23 |
| Multiracial | 132 | 8.33 | 7.58 | 12.88 | 7.58 | 12.12 |
| Other | 19 | 0.00 | 10.53 | 31.58 | 5.26 | 10.53 |
| *Study Site* | | | | | | |
| EA | 250 | 2.40 | 4.00 | 8.00 | 4.00 | 11.20 |
| MW | 165 | 4.85 | 6.06 | 6.06 | 2.42 | 6.67 |
| SO | 218 | 6.88 | 10.55 | 13.76 | 8.26 | 6.88 |
| SW | 296 | 7.09 | 6.76 | 14.53 | 7.09 | 12.84 |
| NW | 234 | 5.98 | 7.69 | 15.38 | 5.98 | 8.97 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 06/30/00.

**Table 9. Children at or above Borderline Clinical Range (T ≥ 67) on Selected Syndrome Scales by Race and Study Site**

**Age 6 Interview**

| | N | Aggressive Behavior % | Delinquent Behavior % | Sex Problems % | Attention Problems % |
|---|---|---|---|---|---|
| *Total* | 1163 | 17.45 | 18.40 | 8.51 | 13.76 |
| *Child Race* | | | | | |
| White | 311 | 20.58 | 18.33 | 10.29 | 15.43 |
| Black | 618 | 14.72 | 16.99 | 6.47 | 12.14 |
| Hispanic | 83 | 16.87 | 21.69 | 7.23 | 21.69 |
| Multiracial | 132 | 24.24 | 23.48 | 15.91 | 12.88 |
| Other | 19 | 10.53 | 15.79 | 0.00 | 10.53 |
| *Study Site* | | | | | |
| EA | 250 | 15.20 | 14.40 | 6.80 | 10.40 |
| MW | 165 | 11.52 | 13.33 | 6.06 | 9.09 |
| SO | 218 | 12.84 | 14.68 | 6.88 | 15.14 |
| SW | 296 | 22.30 | 22.97 | 12.84 | 18.24 |
| NW | 234 | 22.22 | 23.93 | 8.12 | 13.68 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 06/30/00.

# Child Demographics

LONGSCAN 1991

## Description of Measure

*Purpose*

To gather demographic data on the subject child.

*Conceptual Organization*

The instrument asks caregivers to provide information about the study child's age, sex, race, first language, and birth order.

*Item Origin/Selection Process*

Items were selected by LONGSCAN which were thought to be potentially important for describing the samples and as covariates in analyses.

*Materials*

Non-copyrighted forms are included in this manual.

*Time Required*

Less than 5 minutes

*Administration Method*

Interviewer-administered.

*Training*

Minimal.

## Scoring

*Score Types*

Individual items

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4, 6: all sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

Pre-Age 4 & Age 4: BKGA

Age 6: BK6A. Only date of birth is asked, not child's age.

*Rationale*

Demographic characteristics were included in order to permit the examination of variations in abuse and neglect rates by such characteristics as sex and birth order. The child's first language was assessed to aid in the selection of language administration for child measures and to provide information on the cultural context of the child.

**Results**

Tables 1 and 2 display the racial distribution of LONGSCAN subjects interviewed at Age 4 and Age 6. Table 1 shows that about half of the LONGSCAN children were identified by their caregivers as Black, while over one-quarter were classified as White. The remainder were classified as Hispanic, of multiracial background, or some other race (Pacific Islander, Asian, Native American). Racial composition of the individual samples varied by site. For example, nearly all of the subjects in the EA sample were Black. Only MW and SW had a substantial number of Hispanic subjects, 18.7% and 16% respectively. Racial composition of the samples did not change significantly at Age 6.

**Table 1 about here**

**Table 2 about here**

Table 3 provides information about subject sex, first language, and birth order by race and study site. Overall, and independently by study site and race, the samples were about half female. The overwhelming majority of subjects spoke English as their first language. The SW site had the smallest percentage of children (93%) whose first language was English.

**Table 3 about here**

About 36% of the children were the last child born in their families at the time of the Age 4 interview, not including the 12% who were only children. About one quarter were first-born children. By race and study site, birth order did not vary substantially, except that there were few Hispanic children who were only children (5%), and nearly half of the children in the SO site were first-born children. The preponderance of first-born children in the SO sample may be an artifact of the original sample selection criteria, which included such risk factors as young maternal age.

The demographic characteristics of the LONGSCAN samples at Age 6 were similar to those at Age 4 (Table 4), with shifts occurring in the expected directions for children's positions in their families. By Age 6 years, the LONGSCAN children were less likely to be only or youngest children and more likely to be first or middle children.

**Table 4 about here**

**Table 1. Race Composition of Children by Study Site**

**Age 4 Interview**

| Study Site | N | % White | % Black | % Hispanic | % Multiracial | % Other |
|---|---|---|---|---|---|---|
| *Total* | 1148 | 28.7 | 51.0 | 7.0 | 11.1 | 2.3 |
| EA | 236 | 5.1 | 92.4 | 0.4 | 1.3 | 0.8 |
| MW | 123 | 15.4 | 50.4 | 18.7 | 13.8 | 1.6 |
| SO | 221 | 36.7 | 62.0 | 0.0 | 1.4 | 0.0 |
| SW | 318 | 29.2 | 36.5 | 16.0 | 15.4 | 2.5 |
| NW | 250 | 49.6 | 21.2 | 2.0 | 22.0 | 5.2 |

Source. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. Race Composition of Children by Study Site**

**Age 6 Interview**

| Study Site | N | % White | % Black | % Hispanic | % Multiracial | % Other |
|---|---|---|---|---|---|---|
| *Total* | 1170 | 26.6 | 53.3 | 7.2 | 11.4 | 1.6 |
| EA | 252 | 5.2 | 92.5 | 0.4 | 1.2 | 0.8 |
| MW | 166 | 12.1 | 51.8 | 17.5 | 18.1 | 0.6 |
| SO | 220 | 34.6 | 64.6 | 0.0 | 0.9 | 0.0 |
| SW | 298 | 28.5 | 37.6 | 16.4 | 16.1 | 1.3 |
| NW | 234 | 50.0 | 21.4 | 2.1 | 21.4 | 5.1 |

Source. Based on data received at the LONGSCAN Coordinating Center by 06/30/00.

**Table 3. Selected Characteristics of Children by Race and Study Site**

**Age 4 Interview**

| | N | % Female | % English 1st Language | Child Position in Family | | | |
|---|---|---|---|---|---|---|---|
| | | | | % Only | % Oldest | % Middle | % Youngest |
| *Total* | 1148 | 51.7 | 97.4 | 12.6 | 23.7 | 26.3 | 36.3 |
| *Race* | | | | | | | |
| White | 329 | 52.0 | 99.4 | 14.9 | 24.6 | 21.3 | 38.9 |
| Black | 586 | 53.2 | 100.0 | 11.6 | 24.6 | 29.0 | 34.0 |
| Hispanic | 80 | 47.5 | 70.0 | 5.0 | 18.8 | 27.5 | 46.3 |
| Multiracial | 127 | 50.4 | 98.4 | 16.5 | 21.3 | 28.3 | 31.5 |
| Other | 25 | 32.0 | 92.0 | 12.0 | 20.0 | 16.0 | 48.0 |
| *Study Site* | | | | | | | |
| EA | 236 | 46.2 | 100.0 | 12.3 | 24.6 | 26.7 | 36.4 |
| MW | 123 | 53.7 | 95.1 | 9.8 | 19.5 | 32.5 | 38.2 |
| SO | 221 | 54.8 | 100.0 | 17.2 | 43.9 | 15.4 | 23.1 |
| SW | 318 | 54.7 | 93.4 | 6.3 | 13.5 | 36.8 | 40.6 |
| NW | 250 | 49.2 | 98.8 | 18.4 | 20.0 | 19.2 | 41.6 |

Source. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 4. Selected Characteristics of Children by Race and Study Site**

**Age 6 Interview**

| | N | % Female | % English 1st Language | Child Position in Family | | | |
|---|---|---|---|---|---|---|---|
| | | | | % Only | % Oldest | % Middle | % Youngest |
| *Total* | 1170 | 51.2 | 98.0 | 8.9 | 25.9 | 31.3 | 33.9 |
| *Race* | | | | | | | |
| White | 311 | 51.8 | 99.7 | 12.3 | 25.8 | 24.8 | 37.1 |
| Black | 623 | 52.3 | 99.8 | 7.8 | 27.5 | 34.7 | 30.1 |
| Hispanic | 84 | 46.4 | 76.2 | 3.6 | 19.1 | 34.5 | 42.9 |
| Multiracial | 133 | 50.4 | 98.5 | 10.6 | 21.5 | 30.3 | 35.6 |
| Other | 19 | 31.6 | 100.0 | 5.3 | 21.1 | 15.8 | 57.9 |
| *Study Site* | | | | | | | |
| EA | 252 | 48.4 | 99.6 | 9.6 | 29.1 | 33.1 | 28.3 |
| MW | 166 | 51.2 | 95.2 | 8.5 | 19.4 | 35.8 | 36.4 |
| SO | 220 | 54.6 | 100.0 | 12.7 | 46.4 | 15.9 | 25.0 |
| SW | 298 | 53.7 | 95.3 | 3.4 | 15.0 | 40.1 | 41.5 |
| NW | 234 | 47.9 | 99.6 | 12.0 | 21.3 | 29.5 | 37.2 |

Source. Based on data received at the LONGSCAN Coordinating Center by 06/30/00.

## Child Demographics

## Age 4 Interview

## (BKGA)

I want to start by getting some information about (CHILD): about his/her background and how she/he's been feeling and acting over the last few months. First, I'm just going to record some basic information.

1. CHILD'S DATE OF BIRTH: _____ /_____ /_____
   (MO) (DAY) (YR)

   So right now s/he is . . . ____ years ____ months
   2a. 2b.

3. CHILD'S SEX
   1 MALE
   2 FEMALE

4. Which one of these best describes (CHILD)'s race or ethnic group?
   1 WHITE
   2 BLACK
   3 HISPANIC
   4 NATIVE AMERICAN
   5 ASIAN
   6 MIXED RACE
   7 OTHER_____
   (specify)

5. What is (child)'s first language, that is, the language s/he speaks most often at home?
   1 English
   2 Spanish
   3 Other _____
   (specify)

6. Does child have a second language?

0 NO------> (GO TO Q. 7)

1 YES------> 6a. What is (CHILD)'s second language?

1 ENGLISH

2 SPANISH

3 OTHER _____(specify)

7. What position was (CHILD) born into in his/her family?

(READ RESPONSES) ?

0 ONLY CHILD

1 FIRST (OLDEST)

2 MIDDLE

3 LAST (YOUNGEST)

-- DON'T KNOW

8. Who makes the decisions about what's best for (CHILD) most of the time? (like bedtime, when s/he goes to the doctor, what s/he eats for meals)

1 RESPONDENT (or RESPONDENT AND SPOUSE)

2 RESPONDENT'S SPOUSE

3 OTHER _____

(specify)

# Child Health Assessment

LONGSCAN 1991

## Description of Measure

*Purpose*

To briefly assess the child's current health status.

*Conceptual Organization*

LONGSCAN uses global health status and a checklist of chronic illnesses or conditions (Age 4, Age 6) as a broad indicator of child health and well being. At Age 4, the Child Injury Questionnaire also asks about accidents and injuries within the past year, doctor visits and hospitalizations associated with injuries, and total lifetime number of hospitalizations for the child. The Child Life Events form, administered at Age 6 and yearly thereafter, asks whether there were serious illnesses, injuries, and hospitalizations for the child in the last year. At Age 8, all questions related to child health and medical care are subsumed in the Child Life Events and the Services Utilization forms. The Services Utilization form includes questions about well-child check-ups, immunizations, dental care, medical care for ongoing problems, as well as the global health question.

*Item Origin/Selection Process*

The global health status item was selected as one of the most reliable indicators of physical health (Krause & Jay, 1994). The other items are comparable to those collected on a nationally representative sample of US children in the 1988 National Health Survey on Child Health (NHIS-CH) (Bloom, 1990; Boyle, Decoufle, & Yeargin-Allsopp, 1994).

*Materials*

Non-copyrighted form is included in this manual.

*Time Required*

2-5 minutes.

*Administration Method*

Interviewer-administered

*Training*

Minimal

**Scoring**

*Score Types*

Individual items. Items indicating the presence of particular chronic illnesses and conditions may be summed to produce an "index." It may also be useful to dichotomize this index in terms of presence of one condition/chronic illness versus multiple conditions/chronic illnesses.

*Score Interpretation*

Results may be compared to data from the 1988 National Health Survey on Child Health (NHIS-CH) (Bloom, 1990; Boyle, Decoufle, & Yeargin-Allsopp, 1994).

**LONGSCAN Use**

*Data Points*

Pre-Age 4: NW & MW sites only

Age 4, 6, 8, 12, 14, and at annual interviews: all sites

*Respondent*

Primary maternal caregiver.

*Mnemonic and Version*

Pre-Age 4 & Age 4: CHLA. Health status, illnesses and conditions

Age 6: CH6A. The category, "developmental delay," was replaced by "Hyperactivity/Attention Problems," and "Learning Problems." In addition, the descriptions of specific conditions were modified slightly to make them easier to understand.

Age 8: SUA. See Service Utilization. This form was used to gather health status and

medical care received.

Age 5, Age 6, Age 7: LECA. See Child Life Events. Gathers information on serious illnesses and injuries.

Age 8, Age 9, Age 10, Age 11: LEB. See Child Life Events. Gathers information on serious illnesses and injuries.

Age 12 & 14: CHLB. Health status, aches and pains, limitations on activities (two items), and anxious or depressed affect.

CHDA. Child's self report of health status, perception of body build (very skinny-very overweight), and pubertal development status.

Age 12, Age 13 , Age 14: LECC. See Child Life Events. Gathers information on serious illnesses and injuries.

*Rationale*

Child health is assessed at every LONGSCAN data point as a possible correlate of child maltreatment. Poor child health may contribute to, or be a consequence of, child abuse and neglect.

The global health rating is one of the most reliable indicators of physical health (Krause & Jay, 1994). In addition, the National Health Interview Survey has demonstrated that children with multiple chronic conditions have more physical, emotional, and behavioral problems and use substantially more health services compared to children with one or no chronic conditions (Newacheck & Stoddard, 1994).

**Results**

*Descriptive Statistics*

Table 1 provides children's mean number of health problems as reported by their maternal caregivers at the time of the Age 4 and Age 6 interviews by race and study site. In general, the mean number of health problems increased from the Age 4 to the Age 6 interview. This finding might reflect the replacement of “developmental delay” at Age 4 with “Hyperactivity/ Attention Problems” and “Learning Problems” at Age 6. Black children had fewer health problems reported at Age 4, and at Age 6 both Black children and children of other races had fewer problems than White, Hispanic, and multiracial children.

**Table 1 about here**

The EA site, which has the highest proportion of Black subjects (97%), had the fewest reported health problems. In contrast, SW, the site with the highest proportion of children in foster care, had the largest number of health problems at Age 4 and 6.

Table 2 shows how maternal caregivers rated their children's health at the Age 4 and 6 interviews by race and study site. Overall, child health ratings improved slightly with age, with 93% of children reported as having excellent or good health at Age 6 as opposed to 90% at Age 4. The largest increases in the percentage of children whose health status was rated as excellent were at the EA and SW site; however, at the EA site the percentage of children whose health status was reported as fair also increased.

**Table 2 about here**

*Reliability*

Acceptable test-retest reliability of the chronic conditions index was demonstrated by significant chi-square associations between Age 4 and Age 6 reports of each of seven conditions that were asked at both interviews. The seven conditions included speech problems, hearing problems, vision problems, chronic illness, mental retardation, physical handicap, and emotional problems.

*Validity*

Validity of the chronic health index was examined by chi-square analyses comparing the use of specific types of service with the report of specific types of health problems. At the Age 4 interview, children who saw a developmental evaluation specialist were more likely to have a developmental delay than those who did not receive such services; those who saw a language specialist were more likely to have a speech problem; those who saw a speech/language specialist were more likely to have a hearing problem; and those who saw a mental health professional were likely to have an emotional disorders.

**References and Bibliography**

Bloom, B. (1990). Health insurance and medical care: Health of our nation's children: United States, 1988. Vital and Health Statistics. Series No. 18. Hyattsville, MD: National Center for Health Statistics.

Boyle, C. A., Decoufle, P., & Yeargin-Allsopp, M. (1994). Prevalence and health impact of developmental disabilities in US children. Pediatrics, 93, 399-403.

Krause, N., & Jay, G. (1994). What do global health items measure? Medical Care, 9, 930-942.

Newacheck, P. W., & Stoddard, J. J. (1994). Prevalence and impact of multiple childhood chronic illnesses. Journal of Pediatrics, 124(1), 40-47.

**Table 1. Mean Number of Health Problems by Race and Study Site**

**Age 4 and Age 6 Interviews**

| | AGE 4 | | AGE 6 | |
|---|---|---|---|---|
| | **N** | **M (SD)** | **N** | **M (SD)** |
| *Total* | 1147 | 0.73 (1.11) | 1163 | 0.97 (1.25) |
| *Race* | | | | |
| White | 329 | 0.94 (1.25) | 311 | 1.15 (1.35) |
| Black | 586 | 0.61 (1.01) | 619 | 0.81 (1.12) |
| Hispanic | 79 | 0.80 (1.16) | 83 | 1.36 (1.57) |
| Multiracial | 127 | 0.68 (1.06) | 131 | 1.04 (1.31) |
| Other | 25 | 0.96 (1.06) | 19 | 0.79 (0.98) |
| *Study Site* | | | | |
| EA | 235 | 0.47 (0.78) | 251 | 0.84 (1.00) |
| MW | 123 | 0.50 (0.80) | 163 | 0.85 (1.18) |
| SO | 221 | 0.68 (1.05) | 220 | 0.91 (1.30) |
| SW | 318 | 1.02 (1.36) | 295 | 1.22 (1.41) |
| NW | 250 | 0.78 (1.11) | 234 | 0.92 (1.23) |

*Source*. Age 4 information based on data received at the LONGSCAN Coordinating Center by 7/8/97
Age 6 information based on data received at the LONGSCAN Coordinating Center by 06/30/00.

**Table 2. Ratings of Child Health by Maternal Caregivers**

**Age 4 and Age 6 Interviews**

| | Age 4 | | | | |
|---|---|---|---|---|---|
| | **N** | **Excellent (%)** | **Good (%)** | **Fair (%)** | **Poor (%)** |
| *Total* | 1147 | 50.0 | 40.0 | 9.1 | 0.6 |
| *Race* | | | | | |
| White | 329 | 51.7 | 39.2 | 8.2 | 0.9 |
| Black | 586 | 47.8 | 42.7 | 9.2 | 0.3 |
| Hispanic | 79 | 45.6 | 45.6 | 8.9 | 0.0 |
| Multiracial | 127 | 55.9 | 31.5 | 11.0 | 1.6 |
| Other | 25 | 64.0 | 28.0 | 8.0 | 0.0 |
| *Study Site* | | | | | |
| EA | 235 | 39.6 | 48.9 | 11.1 | 0.4 |
| MW | 123 | 48.8 | 40.7 | 9.8 | 0.8 |
| SO | 221 | 52.9 | 41.6 | 5.0 | 0.5 |
| SW | 318 | 50.3 | 40.3 | 8.5 | 0.9 |
| NW | 250 | 57.6 | 30.8 | 11.2 | 0.4 |
| | **Age 6** | | | | |
| | **N** | **Excellent (%)** | **Good (%)** | **Fair (%)** | **Poor (%)** |
| *Total* | 1162 | 56.0 | 36.5 | 7.0 | 0.5 |
| *Race* | | | | | |
| White | 311 | 58.2 | 37.9 | 3.5 | 0.3 |
| Black | 619 | 53.3 | 38.1 | 8.2 | 0.3 |
| Hispanic | 83 | 47.0 | 37.4 | 14.5 | 1.2 |
| Multiracial | 130 | 66.9 | 27.7 | 3.9 | 1.5 |
| Other | 19 | 73.7 | 15.8 | 10.5 | 0.0 |
| *Study Site* | | | | | |
| EA | 250 | 51.2 | 35.2 | 13.2 | 0.4 |
| MW | 163 | 49.7 | 39.9 | 9.8 | 0.6 |
| SO | 220 | 52.3 | 43.6 | 4.1 | 0.0 |
| SW | 295 | 60.7 | 33.9 | 4.8 | 0.7 |
| NW | 234 | 63.3 | 32.1 | 3.9 | 0.9 |

*Source*. Age 4 information based on data received at the LONGSCAN Coordinating Center by 7/8/97

Age 6 information based on data received at the LONGSCAN Coordinating Center by 06/31/00.

## Child Health Assessment

## Age 4 Interview

## (CHLA)

1. Right now, how would you describe (CHILD'S) health compared to other children his/her age? Would you say that his/her health is:

1 EXCELLENT

2 GOOD

3 FAIR

4 POOR

2. Does (CHILD) have any of these conditions? (SHOW AND READ LIST)

| | | YES | NO | DK |
|---|---|---|---|---|
| 2a. | EMOTIONAL DISORDER | 1 | 0 | -- |
| 2b. | MENTALLY RETARDED | 1 | 0 | -- |
| 2c. | DEVELOPMENTAL DELAY | 1 | 0 | -- |
| 2d. | PHYSICAL HANDICAP | 1 | 0 | -- |
| 2e. | HEARING PROBLEM | 1 | 0 | -- |
| 2f. | SPEECH PROBLEM | 1 | 0 | -- |
| 2g. | VISION PROBLEM | 1 | 0 | -- |
| 2h. | CHRONIC ILLNESS/DISEASE | 1 | 0 | -- |

3. Is there any other illness or problem, that you know of, which affects child's growth and development?

0 NO

1 YES _____ (describe)

# Child Injury Questionnaire

LONGSCAN 1991

## Description of Measure

*Purpose*

To assess, by caregiver report, the number, type, and seriousness of injuries sustained by children within the past year.

*Conceptual Organization*

The instrument is comprised of five primary items designed to elicit information on the occurrence of four specific types of injury: poisonings, burns, breathing problems, and head injuries; as well as any other injury that resulted in a medical visit. For each injury that is endorsed, three follow-up questions are asked to determine where the injury occurred and if medical advice, treatment, and/or hospitalization took place as a result of the injury.

*Item Origin/Selection Process*

The classifications of injury were used in the SO sample before the study joined the LONGSCAN consortium, when the children were 12 to 24 months of age (Harris & Kotch, 1994). The items were adapted from a North Carolina injury prevention survey (Bowling, 1985).

*Materials*

Non-copyrighted form is included in this manual.

*Time Required*

2-5 minutes depending on whether an injury occurring within the past year is reported.

*Administration Method*

Self- or interviewer-administered

*Training*

Minimal

**Scoring**

*Score Types*

The frequency of each type of injury as well as the total number of different types of injuries over the year may be examined. Injuries that resulted in a hospital stay can be used as an indicator of severity.

**Psychometric Support**

*Reliability*

Reliability of this measure has not been assessed.

*Validity*

Maternal reports have been shown to be an accurate measure of infant injuries (Bowling, 1985; McCormick, Shapiro, & Starfield, 1981). In an earlier study using this measure, family conflict, as measured by Moos Family Environment Scale, was a significant predictor of the incidence of injury for children aged 0-24 months (Harris & Kotch, 1994).

**LONGSCAN Use**

*Data Points*

Pre-Age 4: NW & MW sites only

Age 4: all sites

From Age 5 forward, injuries are assessed annually as part of the Child's Life Events form. The items ask whether the child suffered any kind of injury in the past year, the type of injury suffered (poisoning, burn, choking/strangling, head injury resulting in loss of consciousness, or other, recorded verbatim), and whether the child was seen by a doctor, or was hospitalized overnight for an injury. Starting at Age 12, the injuries listed in the answer set was changed to better capture more common injuries (e.g., sprains, cuts, fractures).

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

ACCA

*Rationale*

Injuries may be an indication of child abuse or neglect. Risk factors for unintentional injuries are remarkably similar to those associated with maltreatment. They include socioeconomic disadvantage (Laing & Logan, 1999), single parent families, young maternal age, more children in the home (Bradbury, 1999), parental alcohol and substance abuse (Bijur et al., 1992), maternal depression and anxiety (Bradbury, 1999), less child-centered families (Cataldo et al., 1992), child behavior problems (Cataldo et al., 1992), child health problems (Bradbury, 1999), and lower child social competence (Bradbury, 1999). This form was chosen for administration at the Pre-Age 4 and Age 4 data points because it was used previously at the SO LONGSCAN sites.

*Administration and Scoring Notes*

Interviewer-administered.

**Results**

Table 1 describes the frequency with which types of injuries were observed by race and study site. Of the four types of serious injuries, the most frequently reported were burns (7.1% of all subjects) and the least frequently reported were head injuries (0.9% of all subjects). The measure has limited usefulness in terms of understanding the types of injuries most often sustained by children of this age because most injuries reported fell into the “other” category. Lacerations and broken bones predominated among “other” injuries.

**Table 1 about here**

White children were reported as having more injuries than children in other racial groups. Children at the NW site (the sample with the largest proportion of whites) had the highest percentage of injuries by site and the majority of these injuries were classified as "Other". All children in that sample had been reported as being maltreated in the year prior to the Age 4 interview.

**References and Bibliography**

Bijur P.E., Kurzon M., Overpeck M.D., Scheidt P.C. (1992). Parental alcohol use, problem drinking, and children's injuries. JAMA-Journal of the American Medical Association, 267(23), 3166-3171.

Bowling, J. M. (1985). Unintended childhood injury in North Carolina (Report no. 37). Raleigh, NC: State Center for Health Statistics.

Bradbury, K., Janicke, D.M., Riley, A.W., Finney, J.W. (1999). Predictors of unintentional injuries to school-age children seen in pediatric primary care. Journal of Pediatric Psychology, 24(5), 423-433.

Cataldo, M. F., Finney J.W., Richman, G. S., Riley A.W., Hook R. J., Brophy, C. J., Nau, P. A. (1992). Behavior of injured and uninjured children and their parents in a simulated hazardous setting. Journal of Pediatric Psychology, 17(1), 73-80.

Christoffel, K. K., Scheidt, P. C., Agran, P. F., Kraus, J. F., Mcloughlin, E., Paulson, J. A. (1992). Standard Definitions for Childhood Injury Research - Excerpts of a Conference Report. Pediatrics, 89(6), 1027-1034, Part 1.

Harris, M. J., & Kotch, J. B. (1994). Unintentional infant injuries: Sociodemographic and psychosocial factors. Public Health Nursing, 11(2), 90-97.

Laing G.J., Logan S. (1999). Patterns of unintentional injury in childhood and their relation to socio-economic factors. Public Health, 113(6), 291-294.

McCormick, M., Shapiro, S., & Starfield, B. (1981). Injury and its correlates among 1-year-old children. American Journal of Diseases of Children, 135, 159-163.

Peterson L., Bartelstone J., Kern T., Gillies R. (1995) Parents Socialization of Childrens Injury Prevention - Description and Some Initial Parameters. Child Development, 66(1), 224-235.

Peterson L., Brown D. (1994) Integrating child injury and abuse-neglect research – common histories, etiologies, and solutions. Psychological Bulletin, 116(2), 293-315.

Peterson L., Stern B.L. (1997). Family processes and child risk for injury. Behaviour Research and Therapy, 35(3), 179-190.

Reading R, Langford IH, Haynes R, Lovett A (1999). Accidents to preschool children: comparing family and neighbourhood risk factors. Social Science & Medicine, 48(3), 321-330.

Routh, D. K. (1997) Injury control research in pediatric psychology: A commentary and a proposal. Journal of Pediatric Psychology, 22(4), 495-498.

Scholer, S. J., Hickson, G. B., Ray, W. A. (1999). Sociodemographic factors identify US infants at high risk of injury mortality. Pediatrics, 103(6), 1183-1188.

Tremblay G.C., Peterson L. (1999). Prevention of childhood injury: Clinical and public policy challenges. Clinical Psychology Review, 19(4), 415-434.

**Table 1. Child Injury Questionnaire. Percentage of Injuries by Type, by Race and by Study Site**

**Age 4 Interview**

| | N | Any Injury (%) | Poisoning (%) | Burns (%) | Breathing (%) | Head Injury (%) | Other (%) |
|---|---|---|---|---|---|---|---|
| *Total* | 1147 | 25.9 | 2.9 | 7.1 | 1.7 | 0.9 | 17.2 |
| *Race* | | | | | | | |
| White | 329 | 33.4 | 4.0 | 8.8 | 3.0 | 1.8 | 22.7 |
| Black | 586 | 21.2 | 2.2 | 6.5 | 0.7 | 0.7 | 13.6 |
| Hispanic | 79 | 26.6 | 5.1 | 6.3 | 2.5 | 0.0 | 15.2 |
| Multiracial | 127 | 28.3 | 2.4 | 6.3 | 2.4 | 0.0 | 19.7 |
| Other | 25 | 20.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.0 |
| *Study Site* | | | | | | | |
| EA | 235 | 23.4 | 3.4 | 6.8 | 0.9 | 0.9 | 14.9 |
| MW | 123 | 26.0 | 1.6 | 8.1 | 2.4 | 0.8 | 16.3 |
| SO | 221 | 26.2 | 3.2 | 7.2 | 1.4 | 0.9 | 17.9 |
| SW | 318 | 23.3 | 2.5 | 6.6 | 1.6 | 0.9 | 14.2 |
| NW | 250 | 31.2 | 3.2 | 7.6 | 2.4 | 0.8 | 22.8 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

N.B. Rows may sum to more than the percentage give in "Any Injury" because a child may have had more than one kind of injury.

## Child Injury Questionnaire
## (ACCA)

Now I would like you to think about injuries and accidents [CHILD] has had *within the last year.*

IF RESPONDENT REPORTS MORE THAN ONE EPISODE, OF THE SAME TYPE OF INJURY, ASK ABOUT THE MOST SERIOUS EPISODE.

Did he/she have any injury because. . . .

1. He/she drank or breathed something which you thought was poisonous?
   - 0 NO ---> GO TO Q. 5
   - 1 YES

2. Where did this injury occur?
   **(HAND CARD)**
   - 1 YOUR HOME OR YARD
   - 2 DAY CARE OR PRE-SCHOOL
   - 3 FRIEND'S OR RELATIVE'S HOME OR YARD
   - 4 BABYSITTER'S HOME OR YARD
   - 5 OTHER _____(EXPLAIN)

3. Did you seek medical advice or treatment?
   - 0 NO ---> GO TO Q. 5
   - 1 YES

4. Did [CHILD'S NAME] have to stay overnight in a hospital because of this injury?
   - 0 NO
   - 1 YES

5. He/she was burned or scalded by something hot, caustic or electric? (For example, a hot

liquid or surface, a chemical, an electrical wire or any other type of burn?)

0 NO ---> GO TO Q. 9

1 YES

6. Where did this injury occur?

1 YOUR HOME OR YARD

2 DAY CARE OR PRE-SCHOOL

3 FRIEND'S OR RELATIVE'S HOME OR YARD

4 BABYSITTER'S HOME OR YARD

5 OTHER _____(EXPLAIN)

7. Did you seek medical advice or treatment?

0 NO ---> GO TO Q. 9

1 YES

8. Did [CHILD'S NAME] have to stay overnight in a hospital because of this injury?

0 NO

1 YES

9. He/she had difficulty breathing because of choking, strangling, suffocating or nearly drowning?

0 NO ---> GO TO Q. 13

1 YES

10. Where did this injury occur?

1 YOUR HOME OR YARD

2 DAY CARE OR PRE-SCHOOL

3 FRIEND'S OR RELATIVE'S HOME OR YARD

4 BABYSITTER'S HOME OR YARD

5 OTHER _____(EXPLAIN)

11. Did you seek medical advice or treatment?

0 NO ---> GO TO Q. 13

1 YES

12. Did [CHILD'S NAME] have to stay overnight in a hospital because of this injury?

0 NO

1 YES

13. He/she was knocked out due to a head injury?

0 NO ---> GO TO Q. 17

1 YES

14. Where did this injury occur?

1 YOUR HOME OR YARD

2 DAY CARE OR PRE-SCHOOL

3 FRIEND'S OR RELATIVE'S HOME OR YARD

4 BABYSITTER'S HOME OR YARD

5 OTHER _____(EXPLAIN)

15. Did you seek medical advice or treatment?

0 NO ---> GO TO Q. 17

1 YES

16. Did [CHILD NAME] have to stay overnight in a hospital because of this injury?

0 NO

1 YES

17. Was there any other time (NOT HEAD INJURY) that s/he was hurt seriously enough that you either took him/her to a doctor or nurse?

0 NO ---> GO TO Q. 20

1 YES

18. Where did this injury occur?

1 YOUR HOME OR YARD

2 DAY CARE OR PRE-SCHOOL

3 FRIEND'S OR RELATIVE'S HOME OR YARD

4 BABYSITTER'S HOME OR YARD

5 OTHER _____(EXPLAIN)

19. Did [CHILD NAME] have to stay overnight in a hospital because of this injury?

0 NO

1 YES

20. In all, how many times has child been hospitalized in his/her life?

__ __ TIMES

_____DK

# Conflict Tactics Scales: Caregiver-to-Child

Straus, M. 1979

Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W., & Runyan, D. K. 1998

## Description of Measure

*Purpose*

To measure the extent to which caregivers use reasoning and nonviolent discipline, verbal aggression, or physical aggression in response to their child's behavior.

*Conceptual Organization*

The Conflict Tactic Scales (CTS) were designed to measure the range of tactics used in response to conflict with a family member and the frequency with which respondents use specific tactics, focusing on "acts" rather than "injuries." CTS were developed for use with (1) partners reporting on a dating, cohabiting, or marital relationship; (2) parents reporting on behavior towards their children; (3) children reporting on the behavior of parents toward each other; (4) children reporting on the behavior of parents towards them; (5) children reporting on their interaction with siblings; (6) adults reporting on the behavior of parents toward them when they were children; and (7) adults reporting on behavior of parents toward each other when they were children.

This entry focuses on the parent-child version of the scale. The first version, the CTS1 (Straus 1979; 1990), includes 19 acts (labeled A-S) which are conceptualized as belonging to one of three broad categories: Reasoning (3 items), Psychological Aggression (7 items), and Physical Assault (9 items). Physical Assault is subdivided into Minor Assault (3 items) and Severe Assault (6 items). Response categories range from never to more than 20 times in the past year.

In the revised version of this instrument, the CTSPC (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998), the Reasoning dimension is reconceptualized as Nonviolent Discipline, with the addition of punitive behavior items to better reflect tactics commonly used by contemporary parents. This version also divides physical assault into minor, severe, and very severe. The newest version does not offer "never" as a possible response; the respondent must volunteer "never" rather than selecting the lowest possible option of

"1 time."

Items are arranged in order of increasing severity in the CTS1, and in interspersed order in the CTSPC.

*Item Origin/Selection Process*

The original CTS items were selected through factor analyses (Straus, 1974, 1979), and modifications and additions were derived through discussions among the authors of the CTSPC and their colleagues (Straus et al. 1998). Three items were added to each subscale in the CTSPC to improve reliability.

*Materials*

The forms for administering the Conflict Tactics Scales are available from the first author. Also see Straus (1990). The CTSPC (Straus, et al., 1998) is copyrighted and requires permission from the first author for use. Information about obtaining the instruments is available at www.unh.edu/frl.

*Time Required*

6-8 minutes

*Administration Method*

The instrument was designed for self-administration; however, it can also be interviewer-administered.

**Training**

Minimal

**Scoring**

*Score types*

Prevalence rates are the most frequently used score type, and are calculated by coding items as binary variables: "did not occur" (1) vs. "occurred (0)." Scale scores, continuous variables which estimate the frequency with which respondent employs

different types of conflict tactics, are calculated by summing the midpoint of each category except the last. The chronicity score is the sum of the number of times each act in a scale was used by those who used at least one of the acts in a scale. Finally, although generally not advisable, weights can be applied to item frequencies to derive a Severity Times Frequency Weighted score.

Scales contained in the CTS1 are comprised of the items listed below (Straus, 1990).

- Reasoning: Items A, B, C
- Psychological Aggression: Items D, E, F, H, I, J (note that item G, "crying", is not scored)
- Physical Assault:
    1. Minor Assault (Corporal Punishment): Items K, L, M
    2. Severe Assault: Items N, O, P, Q, R, S

Scales contained in the CTSPC are comprised of the items listed below (Straus et al., 1998).

- Nonviolent Discipline: Items A, B, Q, E
- Psychological Aggression: Items N, F, J, U, L
- Physical Assault:
    1. Minor Assault (Corporal Punishment): Items H, D, P, R, C
    2. Severe Assault: Items V, O, T, G
    3. Very Severe Assault: Items K, I, M, S

(See LONGSCAN Scoring notes for instructions on scoring LONGSCAN modified scales.)

*Score Interpretation*

Individual item scores can be examined to assess the frequency of the occurrence of a particular type of behavior (e.g., slapping). Scale and rate scores indicate the frequency and the prevalence of specific types of tactics used. Interpretation varies depending on the age of the child (e.g., shaking is very severe if the child is less than two years old).

**Norms and/or Comparative Data**

The CTS was used in a national survey, the 1985 National Family Violence Study (Gelles & Straus, 1988). The CTSPC was administered to a nationally representative

sample of households with a child under the age of 18 in a 1995 Gallup survey.

**Psychometric Support**

*Reliability*

The Cronbach's alpha reliability coefficients for the CTS based on data from the 1985 National Family Violence Survey data were relatively low: .62 for Psychological Aggression and .42 for Physical Assault.

*Validity*

Construct validity has been demonstrated in a number of studies (see Straus & Hamby, 1997).

**LONGSCAN Use**

LONGSCAN adapted the CTS for use at the baseline interview by selecting items for each scale from the CTS1 or the CTSPC (Strauss et al. 1998) and slightly modifying the wording of most items. Additional modifications were made in the version administered at the Age 8 interview, and the revised version, the CTSPC, was administered in its original form at the Ages 12 and 14 interviews.

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4, 6, 8, 12, 14: all sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

Pre-Age 4, Age 4, & Age 6: CTSB. LONGSCAN's adapted version of the CTS1 at Age 4 and Age 6 omitted the Severe Assault items because of concerns that participants would need to be reported to a child protective service agency if they endorsed any of these items.

Age 8: DMA. See Discipline Methods. For longitudinal analyses of parent-child

Conflict Tactics, differences between the items used at Age 8 and those administered at ages 4 and 6 must be noted. These differences are as follows: (1) Respondents are asked about conflict tactics using a differently worded question ("OVER THE LAST 6 MONTHS have you or anyone else had to do any of the following things to [child's name] because of her/his behavior?") than the CTSB ("HOW MANY TIMES IN THE PAST YEAR, WHEN YOU HAVE HAD A PROBLEM WITH _____. DID YOU. . ."); (2) the time frame for recall was reduced from one year to six months; (3) response categories were changed from asking the frequency of the behavior to asking the respondent to indicate whether they alone, someone else but not them, or both they and someone else had "had" to use each tactic in response to the child's behavior; (4) the Nonviolent Discipline scale was dropped; (5) the item "cry in front of him/her", from the Psychological Aggression scale was dropped, however, this item is not included in scoring anyway; (6) an item from the CTS1 Psychological Aggression scale (Do or say something to spite him/her) was added; (7) Two of the six minor assault items used at prior interviews were dropped ("throw something at child", and "shake him/her"); and (8) items from the Severe Assault scale were added.

Ages 12 & 14: CTSD. This is the CTSPC.

*Rationale*

The CTS focuses on actions, rather than attitudes toward violence or child outcomes subsequent to experienced violence. The focus on actions permits investigation of the covariates and impacts of particular types of conflict tactics used with children. Furthermore, Straus' Conflict Tactics Scales are widely used and reputable measures of interpersonal violence.

*Administration and Scoring Notes*

LONGSCAN scoring for the CTSB is as follows:

- Nonviolent Discipline: Items 1, 2, and 3
- Psychological Aggression: Items 4, 5, 6, 7, 9, 10
- Minor Assault: Items 11, 12, 13, 14, 15, 16

The Nonviolent Discipline scale is comprised of items 1 and 3 from the CTS1 Reasoning scale and item 2 from the CTSPC Nonviolent Discipline scale. The

Psychological Aggression scale is made up from items 5-8 and 10 from the CTS1, and Items 4 and 9 from the CTSPC. In the Minor Assault scale, items 11, 12, 14, 15, and 16 are from the CTS1 and Items 13, 15 and 16 are from the CTSPC; Items 12 and 14 (“grab”, and “push or shove”) are from a single item, "pushed, grabbed, or shoved" on the CTS1. The wording of most of the items was modified from the original.

LONGSCAN also modified the response set in the version used at Age 4 and Age 6 so that the highest frequency of behavior recorded was "more than 5 times" rather than the authors' highest frequency category of more than 20 times. The NW site modified the response set further, due to human subjects restrictions at the study site, allowing either a “no” or “yes” response to each item. The SW site did not administer the CTS at Age 4 because the majority of caregivers were foster parents who are prohibited from using certain types of punishment.

The CTSB was interviewer-administered. To assist respondents, the answer set was made available to them on a preprinted card.

The CTS portion of the DMA includes the following scales:

- Psychological Aggression: Items 10, 11, 12, 13, 14, 15, & 16
- Minor Assault: Items 17, 18, & 19
- Severe Assault: Items 20, 21, 22, 23, 24, & 25

Since the response categories for these items indicate whether the caregiver alone, someone else but not the caregiver, or both the caregiver and someone else use each tactic, each item must first be converted to a binary indicator variable or variables. Scores may then be computed based upon whether the interest is conflict tactics used by the primary caregiver or conflict tactics used by anyone towards the subject child.

**Results**

*Descriptive Statistics*

Table 1 provides the mean scores for each of the three scales by race and study site as reported at the Age 4 and 6 interviews. No data are available for the SW site at Age 4 because the CTSB was not administered and data from the NW site were omitted because of the alternative response set.

At Age 4, White caregivers reported more use of Nonviolent Discipline and

Psychological Aggression than caregivers of other races, while Black caregivers reported more use of Minor Assault. Hispanic caregivers reported less use of both Psychological Aggression and Minor Assault than other racial/ethnic groups. Caregivers at the EA site were more likely to use Psychological Aggression and Minor Assault than those at the other sites.

At Age 6, White caregivers continued to report more use of Psychological Aggression than all other racial groups, and Black caregivers continued to report more use of Minor Assault. Although Age 6 Psychological Aggression and Minor Assault scores were for the most part lower than those reported at Age 4, these scores increased among Hispanic caregivers.

The SO and EA sites reported the highest use of Psychological Aggression and Minor Assault. The least frequent use of Psychological Aggression and Minor Assault was reported in the MW sample.

**Table 1 about here**

*Reliability*

Table 2 provides the Cronbach's alpha coefficients for each of the three scales by race and study site. The Psychological Aggression and Minor Assault scales showed moderate reliability at both data points, and when stratified by site and race. The Nonviolent Discipline scale was shown to be less reliable than the other two scales. Internal consistency is not especially high for these scales because the use of one tactic within a category does not necessarily imply the use of all or most of the others (see Psychometric Support/Reliability above).

**Table 2 about here**

*Validity*

It was hypothesized that primary caregivers who had a history of abuse in their own childhood would be more likely to use abusive conflict tactics in disciplining their child. To test this hypothesis we used CTSB data from the Age 4 interview (for all sites except

the NW) and compared caregivers who reported childhood abuse to those who did not. Caregivers who reported a history of abuse had higher mean Psychological Aggression scores (M = 4.01, SD = 4.53), than those who did not (M = 2.61, SD = 3.23). However, the reverse was found with regard to Minor Assault; caregivers who did not report a history of abuse had higher mean scores (M = 1.24, SD = 2.47) than those who did not (M = .82, SD = 1.85).

We also compared caregivers of children who had an officially documented episode of maltreatment to those who did not, and found that those with a report tended to have higher mean Minor Assault scores than those without a maltreatment report (M = 4.71 and 4.35 respectively).

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**References and Bibliography**

Gelles, R. J., & Straus, M. A. (1988). Intimate violence. NY: Simon & Schuster.

Straus, M. A. (1974). Leveling, civility and violence in the family. Journal of Marriage and the Family, 36, 442-445.

Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics Scales. Journal of Marriage and the Family, 41, 75-88.

Straus, M. A. (1990). Manual for the Conflict Tactics Scales. Durham, NH: Family Research Laboratory, University of New Hampshire.

Straus, M. A., & Gelles, R. J. (1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. Journal of Marriage and the Family, 48, 465-479.

Straus, M. A., & Hamby, S. L. (1997). Measuring physical and psychological

maltreatment of children with the Conflict Tactics Scales. In G. Kaufman Kantor & J. L. Jalinski (Eds.), Out of the darkness: Contemporary research perspectives on family violence (pp. 119-135). Thousand Oaks, CA: Sage.

Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The Revised Conflict Tactics Scales (CTS2): Development and Preliminary Psychometric Data. Journal of Family Issues, 17(3), 283-316.

Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W., & Runyan, D. K. (1998). Identification of Child Maltreatment with the Parent-Child Conflict Tactics Scales (CTS-PC): Development and Psychometric Data for a National Sample of American Parents. Child Abuse and Neglect, 22(4), 249-270.

**Table 1. Mean Scores on the Conflict Tactic Scales by Race and Study Site**

**Age 4 and Age 6 Interviews**

| | N | Nonviolent Discipline M (SD) | Psychological Aggression M (SD) | Minor Assault M (SD) |
|---|---|---|---|---|
| **Age 4** | | | | |
| *Total* | 579 | 7.49 (2.90) | 8.82 (5.25) | 5.00 (3.74) |
| *Race* | | | | |
| White | 127 | 8.74 (2.74) | 9.43 (5.28) | 4.40 (3.09) |
| Black | 415 | 7.12 (2.85) | 8.84 (5.29) | 5.36 (3.94) |
| Hispanic | 22 | 7.32 (3.14) | 5.95 (3.99) | 2.64 (2.19) |
| Multiracial | 8 | 7.75 (3.58) | 7.63 (4.34) | 3.63 (2.67) |
| Other | 7 | 7.86 (2.12) | 7.86 (5.46) | 3.86 (2.85) |
| *Study Site* | | | | |
| EA | 237 | 7.57 (2.71) | 9.62 (5.46) | 5.78 (4.11) |
| MW | 122 | 7.51 (3.21) | 7.53 (5.34) | 3.52 (3.52) |
| SO | 220 | 7.40 (2.92) | 8.67 (4.81) | 4.99 (3.15) |
| **Age 6** | | | | |
| *Total* | 929 | 7.52 (2.85) | 6.77 (4.41) | 3.77 (3.44) |
| *Race* | | | | |
| White | 194 | 8.75 (2.36) | 7.54 (4.71) | 3.63 (3.19) |
| Black | 571 | 6.86 (2.79) | 6.58 (4.23) | 3.93 (3.49) |
| Hispanic | 78 | 7.79 (3.06) | 6.35 (4.99) | 3.37 (3.68) |
| Multiracial | 83 | 8.87 (2.70) | 6.87 (4.28) | 3.48 (3.42) |
| Other | 7 | 8.17 (3.43) | 4.43 (3.36) | 2.57 (2.51) |
| *Study Site* | | | | |
| EA | 252 | 6.71 (2.73) | 6.90 (4.30) | 4.33 (3.71) |
| MW | 166 | 7.52 (3.04) | 5.89 (4.27) | 3.01 (3.17) |
| SO | 219 | 7.35 (2.85) | 7.26 (3.97) | 4.53 (3.21) |
| SW | 166 | 8.32 (2.65) | 6.78 (4.82) | 3.15 (3.31) |

*Source*: Age 4: Based on data received at the LONGSCAN Coordinating by 7/8/97.
Age 6: Based on data received at the LONGSCAN Coordinating by 6/30/00.

*Note*: The SW site did not administer the CTSB at Age 4. Data from the NW site is not included because an alternative response set was used.

**Table 2. Cronbach's Alpha of the Conflict Tactic Scales by Race and Study Site**

**Age 4 and Age 6 Interviews**

| | Age 4 | | | Age 6 | | |
|---|---|---|---|---|---|---|
| | **Non-violent Discipline** | **Psycho-logical Aggression** | **Minor Assault** | **Non-violent Discipline** | **Psycho-logical Aggression** | **Minor Assault** |
| *Total* | .49 | .71 | .68 | .49 | .70 | .60 |
| *Race* | | | | | | |
| White | .42 | .70 | .60 | .20 | .72 | .52 |
| Black | .47 | .71 | .70 | .41 | .68 | .62 |
| Hispanic | -- | -- | -- | .75 | .79 | .68 |
| Multiracial | -- | -- | -- | .50 | .67 | .58 |
| Other | -- | -- | -- | .66 | .51 | .26 |
| *Study Site* | | | | | | |
| EA | .46 | .72 | .70 | .41 | .72 | .64 |
| MW | .59 | .75 | .69 | .58 | .71 | .60 |
| SO | .44 | .65 | .63 | .43 | .61 | .60 |
| SW | | | | .49 | .75 | .59 |

*Source*. Age 4: Based on data received at the LONGSCAN Coordinating by 7/8/97.
Age 6: Based on data received at the LONGSCAN Coordinating by 6/30/00.

*Notes*. A double dash indicates that there were too few cases to calculate the statistic.

The SW site did not administer the CTSB at Age 4. Data from the NW site is not included because an alternative response set was used.

# Day Care History Form

LONGSCAN 1991

## Description of Measure

*Purpose*

To assess the out-of-home day care experiences of the study child.

## Conceptual Organization

The instrument consists of three items asking whether the child has received out-of-home care and, if so, what kind and for how long.

## Item Origin/Selection Process

The items were selected to document all types of possible out-of-home care children received based on typologies used in the published literature (Hill-Scott, 1987; Kisker & Silverberg, 1991; Scarr, Lande, & McCartney, 1989).

## Materials

Non-copyrighted form is included in this manual.

## Time Required

Less than 5 minutes

## Administration Method

Interviewer-administered

## Training

Minimal

## Scoring

*Score Types*

All the response categories are dichotomous (yes/no), except for the last question about length of time in a given type of out-of-home care, for which the response categories range from

1 (< 1 year) to 3 (3 to 4+ years).

**Score Interpretation**

Frequencies of each type of child care arrangement and the average length of time in each type of arrangement are reported. Number of types of child care arrangements and duration in a child-care situation may also be calculated.

**LONGSCAN Use**

***Data Points***

Pre-Age 4: MW & NW sites only

Age 4: all sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

DAYA

*Rationale*

Out-of-home day care may be a protective factor in the risk of child abuse and neglect and may mediate against the harmful effects of abuse, neglect or other adverse circumstances in a high risk population. Quality of care, though important, was not assessed.

**Results**

*Descriptive Statistics*

Table 1 shows child care arrangements reported at the Age 4 interview. Approximately half of the 1148 children (N = 572) were reported to be in out-of-home day care. Day care centers and pre-schools were most frequently reported child care arrangements (77.9%), while the least frequently reported child care arrangement was child play groups (< 1%). A similar pattern was observed across race and site. While caregivers of all races commonly reported using day care/pre-school, more Hispanic, multiracial, and families of other races reported the use of

this type of child care arrangement than Blacks and Whites. Respondents in the SO site were less likely to use daycare/preschool than other sites, and over half of the respondents from that site (50.4%) reported using an alternative type of child care arrangement ("other"). This is probably due to the fact that, at the time of their Age 4 interview, most SO children were enrolled in school. Consequently, parents might have been reporting on the use of babysitters or after-school programs as a type of child care arrangement.

**Table 1 about here**

**References and Bibliography**

Hill-Scott, K. (1987). The effects of subsidized, private, and unregulated child care on family functioning. In D.L. Peters, & S. Kontos (Eds.), Continuity and Discontinuity of Experience in Child Care. Annual Advances in Applied Developmental Psychology, Vol II (pp.147-167). Norwood, NJ: Ablex.

Kisker, E. E., & Silverberg, M. (1991). Child care utilization by disadvantaged teenage mothers. Journal of Social Issues, 47(2), 159-177.

Scarr, S. W., Lande, J. S., & McCartney, K. (1989). Child care and the family: Complements and interactions. In J. S. Lande, S. W. Scarr, & N. Gunzenhauser (Eds.), Caring for children: Challenge to America (pp. 1-21). Hillsdale, NJ: Erlbaum.

**Table 1. Distribution of Use of Specific Child Care Arrangements by Race and Study Site**

**Age 4 Interview**

| | | TYPE OF CHILD CARE ARRANGEMENT | | | | |
|---|---|---|---|---|---|---|
| | N | Day Care/ Pre-School % | Day Care Home % | Relative Care % | Play Group % | Other % |
| *Total* | 572 | 77.9 | 9.2 | 10.2 | 0.9 | 16.0 |
| *Race* | | | | | | |
| White | 168 | 76.8 | 12.7 | 12.1 | 1.2 | 14.5 |
| Black | 277 | 75.7 | 9.4 | 9.8 | 1.1 | 20.6 |
| Hispanic | 37 | 86.5 | 2.7 | 5.4 | 0.0 | 5.4 |
| Multiracial | 78 | 83.3 | 3.9 | 9.2 | 0.0 | 10.5 |
| Other | 12 | 83.3 | 8.3 | 16.7 | 0.0 | 0.0 |
| *Study Site* | | | | | | |
| EA | 90 | 80.0 | 11.1 | 14.4 | 1.1 | 8.8 |
| MW | 66 | 86.4 | 4.5 | 12.1 | 1.5 | 1.5 |
| SO | 119 | 51.3 | 10.1 | 10.9 | 0.8 | 50.4 |
| SW | 140 | 82.9 | 7.9 | 10.8 | 1.4 | 15.0 |
| NW | 156 | 89.1 | 10.5 | 5.9 | 0 | 0.7 |

*Note.* Only caregivers reporting that their child received out-of-home care were included in this analysis.

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

# Day Care History Form
# (DAYA)

These are a few questions about (CHILD'S) child care experiences.

1. Does (CHILD) go away from home to some sort of child care arrangement on a regular basis?

0 NO ---> GO TO Q. 1a

1 YES ---> GO TO Q. 2

1a. Has child ever been in a child care arrangement?

0 NO ---> GO TO NEXT FORM

1 YES ---> GO TO Q. 3

2. What kind of child care arrangement is it? (CIRCLE 0 OR 1 FOR EACH SETTING)

| | NO | YES |
|---|---|---|
| 2a. day care center or pre-school | 0 | 1 |
| 2b. day care home (non-relative) | 0 | 1 |
| 2c. relative care | 0 | 1 |
| 2d. play group; mother's morning out (or other arrangement of less than 5 mornings per week) | 0 | 1 |
| 2e. other _____ (specify) | 0 | 1 |

3. How long has (CHILD) been in [OR was (CHILD) in] a child care arrangement (that total more than 10 hours per week) outside of home?

1. less than 1 yr.
2. 1 - 2+ years
3. 3 - 4+ years

# Duke-UNC Functional Social Support Questionnaire

Broadhead, W.E., Gehlbach, S.H., DeGruy, F.V., and Kaplan, B.H. 1988

## Description of Measure

*Purpose*

To measure an individual's perception of the amount and type of personal social support.

*Conceptual Organization*

The original instrument included 14 items, grouped into 4 subscales: Quantity of Support, Confidant Support, Affective Support, and Instrumental Support.

*Item Origin/Selection Process*

The 14 items were derived from a larger questionnaire developed from a review of the literature for content validity and pretested for reliability (Broadhead, Gehlbach, DeGruy, & Kaplan, 1988, 1989).

*Materials*

Non-copyrighted LONGSCAN version of the form is included in this manual. (Also see Broadhead, Gehlbach, DeGruy, & Kaplan, 1988 for the original instrument.)

*Time Required*

5 minutes

*Administration Method*

Interviewer- or self-administered

## Training

Minimal

## Scoring

*Score Types*

The item response options are on a 5-point scale ranging from 1 (much less than I would like) to 5 (as much as I would like).

*Score Interpretation*

Higher scores reflect higher perceived social support.

**Norms and/or Comparative Data**

The Duke-UNC Functional Social Support Questionnaire (FSSQ) was developed and tested on 401 randomly selected patients attending a family medical clinic in Durham, NC. The population was primarily white, female, and of high SES. Mean item scores on the 14-item instrument for this group ranged from 3.54 to 4.34 on a 5-point scale (Broadhead, Gehlbach, DeGruy, & Kaplan, 1988).

**Psychometric Support**

*Reliability*

Test-retest reliability was evaluated over a 2-week time period, and a correlation coefficient of .66 was found. Item-remainder correlations were used to assess internal consistency and ranged from .50 for useful advice, to .85 for help around the house (Broadhead, Gehlbach, DeGruy, & Kaplan, 1989). The Instrumental Support items had the poorest internal consistency. Factor analysis supported the cohesiveness of the a priori scales describing Confidant Support and Affective Support, while Instrumental Support items did not load together on a single factor. "Help when I'm sick in bed" loaded with the Affective Support items. To improve instrument reliability the original 14-item scale was reduced to eight items.

*Validity*

Construct validity was demonstrated by significant correlations of individual items with measures of symptom status and emotional function. These measures have been shown to relate to social support. Concurrent validity was supported by significant correlations with 3 out of 4 activities measures (Broadhead, et al., 1983).

Reliability and validity of the scale are supported by a study in Spain (N = 656) (Bellon Saameno, Delgado Sanchez, Luna del Castillo, & Lardilli, 1996). Factor analysis replicated the

results of Broadhead and colleagues in yielding two factors Confidant Support and Affective Support. Low social support was significantly related to living alone, worse subjective health, greater chronic morbidity, mental health disorder, and poorer family functioning (measured by Family APGAR).

In another study using the Duke-UNC Functional Social Support Questionnaire (Williams, Williams & Griggs, 1990), social support was again shown to be strongly correlated with family functioning (measured in this instance by FACES and FCOPES).

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4, 6: all sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

SSQB

*Rationale*

Social support received by caregivers may be an important protective factor for children at risk for maltreatment. The measure was selected because it is brief, simple to administer, and has acceptable reliability and validity.

*Administration and Scoring Notes*

LONGSCAN used a slightly modified version of the FSSQ, comprised of 10 items and 3 a priori scales: Confidant Support, Affective Support, and Instrumental Support. Seven items are from the original scale and were selected because of their demonstrated reliability and validity by the author. The other three items were developed by LONGSCAN in an attempt to enhance measurement of instrumental support. These items are:

- Help when I need transportation

- Help with cooking and housework
- Help taking care of my children

Scale scores are generated by summing the scores of all items and range from 10 to 50. Mean item scores can also be used.

**Results**

*Descriptive Statistics and Reliability*

Table 1 presents the mean scores and standard deviations for the FSSQ at the Age 4 and Age 6 interviews by race and study site. Primary caregivers reported fairly high levels of personal social support at both times. Total mean scores across study sites were similar, with the lowest scores reported from respondents at the MW site.

**Table 1 about here**

Table 2 presents data on the scale's internal consistency reliability. Internal consistency, as measured by Cronbach's alpha, was excellent (.80-.93) across racial groups and study sites and data points.

**Table 2 about here**

*Validity*

In order to assess validity, we correlated total scores on the FSSQ at Age 4 with Age 4 Family APGAR scores, hypothesizing that primary caregivers reporting high levels of satisfaction with family functioning would also report high amounts of personal social support. The scores on the two measures were significantly correlated ($\underline{r} = .25$, $\underline{p} < 0.001$).

**References and Bibliography**

Bellon Saameno, J. A., Delgado Sanchez, A., Luna del Castillo, J. D., & Lardelli C. P. (1996). Validity and reliability of the Duke-UNC 11 questionnaire of functional social support (Spanish). Atencion Primaria, 18, 153-156.

Broadhead, W. E., Gehlbach, S. H., DeGruy, F. V., & Kaplan, B. H. (1988). The Duke-UNC Functional Social Support Questionnaire: Measurement of social support in family medicine patients. Medical Care, 26(7), 709-23.

Broadhead, W. E., Gehlbach, S. H., DeGruy, F. V., & Kaplan, B. H. (1989). Functional versus structural social support and health care utilization in a family medicine outpatient practice. Medical Care, 27(3), 221-233.

Broadhead, W.E., Kaplan, B.H., James, S.A., Wagner, E.H., Schoenbach, V.J., Grimson, R., Heyden, S., & Tibblin, G. (1983). Epidemiologic evidence for a relationship between social support and health. American Journal of Epidemiology, 117(5), 521-537.

Williams, P. D., Williams, A. R., & Griggs, C. (1990). Children at home on mechanical assistive devices and their families: A retrospective study. Maternal-Child Nursing Journal, 19, 297-311.

**Table 1. Mean Scores by Race and Study Site**

**Age 4 and 6 Interviews**

| | Age 4 | | Age 6 | |
|---|---|---|---|---|
| | **N** | **M (SD)** | **N** | **M (SD)** |
| *Total* | 1133 | 38.68 (8.76) | 1149 | 38.86 (8.97) |
| *Race* | | | | |
| White | 393 | 38.29 (8.32) | 381 | 37.80 (8.78) |
| Black | 578 | 39.08 (8.81) | 618 | 39.05 (8.87) |
| Hispanic | 81 | 38.33 (9.40) | 85 | 39.98 (10.16) |
| Multiracial | 35 | 36.42 (11.29) | 33 | 38.45 (9.81) |
| Other | 43 | 40.02 ( 7.87) | 28 | 44.46 (5.85) |
| *Study Site* | | | | |
| EA | 232 | 39.23 (9.01) | 246 | 38.85 (9.37) |
| MW | 123 | 36.72 (8.51) | 166 | 37.96 (9.52) |
| SO | 220 | 39.11 (8.93) | 217 | 39.90 (8.77) |
| SW | 310 | 39.95 (8.05) | 286 | 39.77 (8.49) |
| NW | 248 | 37.20 (9.05) | 234 | 37.41 (8.72) |

*Source.* Age 4 and Age 6 data based on data received at the LONGSCAN Coordinating Center by 7/8/97 and 6/30/00, respectively.

**Table 2. Internal Consistency Reliability (Cronbach's Alpha) by Race and Study Site Age 4 and 6 Interviews**

| | Age 4 | Age 6 |
|---|---|---|
| *Total* | .86 | .87 |
| *Race* | | |
| White | .86 | .87 |
| Black | .86 | .86 |
| Hispanic | .86 | .93 |
| Multiracial | .92 | .90 |
| Other | .82 | .83 |
| *Study Site* | | |
| EA | .87 | .88 |
| MW | .80 | .88 |
| SO | .86 | .86 |
| SW | .86 | .88 |
| NW | .86 | .87 |

*Source.* Age 4 and Age 6 data based on data received at the LONGSCAN Coordinating Center by 7/8/97 and 6/30/00, respectively.

## Duke-UNC Functional Social Support Questionnaire (SSQB)

This is a list of some things that other people do for us or give us that may be helpful or supportive. As I read each statement please tell me which answer is closest to your situation. (HAND CARD)

Here is an example:

| **I get . . .** | **As much as I would like** | | | **Much less than I would like** | | **NR** |
|---|---|---|---|---|---|---|
| enough vacation time | 5 | 4 | 3 | 2 | 1 | -- |

If you answer 4, it means that you get *almost as much* vacation time as you would like, but *not quite as much* as you would like. OK?

Answer each item as best you can. Remember, there are no right or wrong answers.

| | **As much as I would like** | | | **Much less than I would like** | | **NR** |
|---|---|---|---|---|---|---|
| **I get . . .** | | | | | | |
| 1. love and affection. | 5 | 4 | 3 | 2 | 1 | -- |
| 2. chances to talk to someone I trust about my personal and family problems. | 5 | 4 | 3 | 2 | 1 | -- |
| 3. invitations to go out and do things with other people. | 5 | 4 | 3 | 2 | 1 | -- |
| 4. people who care what happens to me. | 5 | 4 | 3 | 2 | 1 | -- |
| 5. chances to talk about money matters. | 5 | 4 | 3 | 2 | 1 | -- |
| 6. useful advice about important things in life. | 5 | 4 | 3 | 2 | 1 | -- |
| 7. help when I need transportation. | 5 | 4 | 3 | 2 | 1 | -- |
| 8. help when I'm sick in bed. | 5 | 4 | 3 | 2 | 1 | -- |
| 9. help with cooking and housework. | 5 | 4 | 3 | 2 | 1 | -- |
| 10. help taking care of my child(ren). | 5 | 4 | 3 | 2 | 1 | -- |

# Family APGAR

Smilkstein, G. 1978

## Description of Measure

*Purpose*

To assess a family member's perception of family functioning by examining his/her satisfaction with family relationships.

*Conceptual Organization*

The measure consists of five parameters of family functioning: Adaptability, Partnership, Growth, Affection, and Resolve. (The acronym "APGAR" is comprised of the first letter of each parameter.) The response options were designed to describe frequency of feeling satisfied with each parameter on a 3-point scale ranging from 0 (hardly ever) to 2 (almost always).

*Item Origin/Selection Process*

The items were developed on the premise that a family member's perception of family functioning could be assessed by reported satisfaction with the five dimensions of family functioning listed above (Smilkstein, 1978).

*Materials*

Non-copyrighted forms, included in this manual. Also see Smilkstein (1978).

*Time Required*

Less than five minutes

*Administration Method*

Interviewer-administered

## Training

Minimal

## Scoring

*Score Types*

The scale is scored by summing the values for the five items for a total score that can range from 0 to 10.

*Score Interpretation*

A higher score indicates a greater degree of satisfaction with family functioning.

## Psychometric Support

*Reliability*

Cronbach's alpha values reported across studies using Family APGAR have ranged from .80 to .85, and item-to-total correlations ranged from .50 to .65 (Smilkstein, 1978).

*Validity*

The author's initial assessment of validity was to establish correlations with the previously validated instrument, the Pless-Satterwhite Index, as well as with clinician reports. The former yielded a correlation of .80, the latter .64 (Smilkstein, 1978).

The Family APGAR questionnaire has been used in numerous studies (mostly clinical) investigating family functioning. A literature search using PsychInfo yielded 16 articles in the past ten years that have used the Family APGAR. In clinical practice, Family APGAR scores have been associated with physician visits, immune responses, emotional distress and depressive symptoms (Bluestein, 1993; Clover, 1989; Greenwald, 1999).

Although it is recommended that Family APGAR scores from each member of a household be collected, it has been suggested that an estimate of family satisfaction by the female head of the household will provide an accurate assessment of family functioning (Chao, 1998). In Chao's study, poorer family satisfaction was highly correlated with poorer individual spirits, greater degree of recent individual stress, poorer subjective rating of health, greater number of office visits, and increased number of missed appointments.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4: all sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

FAMA

*Rationale*

This instrument was selected because of its acceptable reliability and validity. In addition, in the study by Reeb and colleagues (1987) of low-income Black women, the Family APGAR score was the best predictor of low birthweight and labor complications. The instrument was also chosen because of the ease with which it could be administered.

*Administration and Scoring Notes*

Longscan changed the scale for the response categories to values of 1 (hardly ever) to 3 (almost always) from Smilkstein's original values of 0 (hardly ever) to 2 (almost always), so that the total score range is 5-15.

Mengel (1987) suggests categorizing the Family APGAR and defines family dysfunction as a score of less than 6. This would translate into a score of less than 9 using the LONGSCAN scoring method.

**Results**

The table lists the means, standard deviations, and Cronbach's alpha values on the Family APGAR as reported by the maternal caregivers at the Age 4 interview. Values are listed by race and study site. We observed very few differences in mean scores on the Family APGAR across race and study site. The mean score across all respondents at Age 4 was 12.4. Internal consistency coefficients ranged from .78 to .87.

**Table 1 about here**

Several strategies were explored to assess the concurrent validity of the measure. First, we hypothesized that primary maternal caregivers who report high levels of satisfaction with family functioning would also report high amounts of social support, as measured on the Duke-UNC Functional Social Support Questionnaire. This was the case ($r = 0.53$, $p < .0001$).

We also compared the Family APGAR results with the Center for Epidemiologic Studies Depression scale (CES-D), hypothesizing that low satisfaction with family functioning would be associated with higher depression scores among caregivers. The results of t-tests to assess mean depression scores across those who were satisfied with their family functioning and those who were not (using item 1 on the Family APGAR, "I am satisfied that I can turn to my family for help when something is troubling me".) showed that maternal caregivers who reported dissatisfaction tended to have significantly higher mean depression scores than those who were satisfied with family functioning ($M = 23.38$ and $M = 11.37$, respectively, $p < .0001$).

**References and Bibliography**

Bluestein, D., & Rutledge, C. (1993). Family relationships and depressive symptom preceding induced abortion. Family Practice Research Journal, 13, 149-156.

Chao, J., Zyzanski, S., & Flocke, S. (1998). Choosing a family level indicator of family function. Families, Systems and Health, 16, 367-373.

Clover, R., Abell, T., Becker, L., & Crawford, S. (1989). Family functioning and stress as predictors of influenza B infection. Journal of Family Practice, 28, 535-539.

Greenwald, J., Grant, W., Kamps, C., & Haas-Cunningham, S. (1998). The Genogram Scale as a predictor of high utilization in family practice. Families, Systems and Health, 16, 375–391.

Hillard, R., Gjerde, C., & Parker, L. (1986). Validity of two psychological screening measures in family practice: Personal Inventory and Family APGAR. Journal of Family Practice, 23, 345-349.

Mengel, M. (1987). The use of the family APGAR in screening for family dysfunction in a family practice center. Journal of Family Practice, 24, 394-398.

Reeb, K. G., Graham, A. V., Zyzanski, S. J., & Kitson, G. (1987). Predicting low

birthweight and complicated labor in urban black women: A psychosocial perspective. Social Science and Medicine, 25, 1321-1327.

Smilkstein, G. (1978). The Family APGAR: A proposal for family function test and its use by physicians. Journal of Family Practice, 6(6), 1231-1239.

Smilkstein, G., Ashworth, C., & Montano, D. (1982). Validity and reliability of the Family APGAR as a test of family function. Journal of Family Practice, 15, 303-311.

**Table 1. Family APGAR Mean Scores and Cronbach's Alpha Coefficients by Race and Study Site**

**Age 4 Interview**

| | N | M (SD) | α |
|---|---|---|---|
| *Total* | 1142 | 12.4 (2.58) | .84 |
| *Race* | | | |
| White | 397 | 12.4 (2.62) | .84 |
| Black | 581 | 12.4 (2.58) | .85 |
| Hispanic | 81 | 12.9 (2.47) | .85 |
| Multiracial | 36 | 12.2 (2.68) | .85 |
| Other | 44 | 12.5 (2.37) | .78 |
| *Study Site* | | | |
| EA | 234 | 12.4 (2.67) | .87 |
| MW | 122 | 12.4 (2.52) | .87 |
| SO | 221 | 12.2 (2.81) | .87 |
| SW | 315 | 12.9 (2.35) | .83 |
| NW | 250 | 12.2 (2.55) | .79 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

# Family APGAR
# (FAMA)

The next questions are about how satisfied you feel with your family. Family means the people with whom you usually live. If you live alone, think of your family as those family members with whom you now feel the closest . For each question, please answer : *almost always, some of the time,* or *hardly ever.*

**(HAND CARD)**

| | | **Almost always** | **Some of the time** | **Hardly ever** | **NR** |
|---|---|---|---|---|---|
| 1. | I am satisfied that I can turn to my family for help when something is troubling me | 3 | 2 | 1 | -- |
| 2. | I am satisfied with the way my family talks over things with me and shares problems with me | 3 | 2 | 1 | -- |
| 3. | I am satisfied that my family accepts and supports my wishes to take on new activities or directions | 3 | 2 | 1 | -- |
| 4. | I am satisfied with the way my family expresses affection, and responds to my emotions, such as anger, sorrow, or love. | 3 | 2 | 1 | -- |
| 5. | I am satisfied with the way my family and I share time together. | 3 | 2 | 1 | -- |

# Health Opinion Survey

MacMillan, A. 1957

## Description of Measure

*Purpose*

To provide a self-report measure of neurotic or psychosomatic symptoms in the general population.

*Conceptual Organization*

The Health Opinion Survey (HOS) is a measure of general mental health in response to temporary stressors. The HOS was developed as a tool to identify individuals with psychological disturbances in the general population (MacMillan, 1957).The instrument contains 20 items, each describing a physical symptom (e.g., "Are you bothered by your heart beating hard?").

*Item Origin/Selection Process*

In the creation of the HOS, MacMillan (1957) borrowed items from the Army's Neuropsychiatric Screening Adjunct developed by Star (1950). From a pool of 75 items, MacMillan selected the 20 items that best discriminated healthy, well-adjusted men and women from hospital neurotics (MacMillan, 1957).

*Materials*

The non-copyrighted form is included in this manual. (See also MacMillan, 1957).

*Time Required*

Less than 5 minutes

*Administration Method*

Interviewer- or self-administered. If all the respondents are literate, the form may be self-administered with appropriate changes in the instructions. If the inventory is interviewer-administered, it is helpful for the interviewer to hold a card in front of the respondent listing the response choices.

**Training**

Minimal

**Scoring**

*Score Types*

Responses are coded 1 (hardly ever), 2 (sometimes), or 3 (often). A total score is derived by summing responses to all items (item 16 is reverse-coded). The total score can range from 20 to 60. In the development of the instrument, the author used discriminant function analysis to derive item weights designed to produce total scores that would maximally distinguish normal respondents from those with neurotic symptoms (MacMillan, 1957).

*Score Interpretation*

Higher scores indicate more psychosomatic symptoms. Some studies have used a cut-off point of 32 to define individuals outside the normal range (Murphy, 1990).

**Norms and/or Comparative Data**

MacMillan (1957) administered the instrument to a community-based sample of White adults (n=559) and to a sample of adults diagnosed with neuroses (n=78). He found that 92% of the neurotic sample, and 25% of the community-based sample score, scored within the "neurotic symptoms" range of the scoring scale

**Psychometric Support**

*Reliability*

The test-retest correlation coefficient (after 10 months) reported in a large study of adults was .72 (Tousignant, Denis, & Lachapelle, 1974). The same study also found high internal consistency among the 20 items (.85). Mexican Americans, particularly those with poor spoken English skills, had higher scores compared to other ethnic groups (Vega, Kolody, & Warheit, 1985; Vega, Warheit, & Palacio, 1985).

*Validity*

Psychiatric patients manifest very high scores on the HOS. However, the validity of the HOS as a tool to assess overall psychological functioning is questionable primarily due to the instrument's inability to distinguish between mental and physical illness (Butler & Jones, 1979; Tousignant, Denis, & Lachapelle, 1974).

**LONGSCAN Use**

LONGSCAN administered a version of the form with the original 20 items reordered and with slight modifications in the wording of items.

*Data Points*

Pre-Age 4: NW & MW sites

Age 4: All sites

*Mnemonic and Version*

HOSA

*Respondent*

Primary maternal caregiver

*Rationale*

This instrument provides a measure of caregiver's psychological disturbance to supplement the CES-D.

**Results**

*Descriptive Statistics and Reliability*

Table 1 provides the HOS mean scores, standard deviations, and Cronbach's alpha coefficients by race and study site based on responses from primary maternal caregivers at the Age 4 interview. Mean scores on the HOS are quite similar for the White, Black, and Hispanic racial groups. Total scores also vary little across study sites, with the NW site having a higher than average mean score, and the SW site having a lower than average mean total score. Caregiver respondents at the SW sites were more likely to be foster parents, and thus were less

likely to have symptoms of psychological disturbances than caregivers in other samples. Internal consistency, measured by Cronbach's alpha, was acceptable overall as well as by study site and race.

**Table 1 about here**

*Validity*

To assess the content validity of the HOS, a Pearson correlation coefficient was computed between symptom scores on the HOS (at Age 4) and depression scores on the CES-D. A correlation coefficient of .66 ($n=1127$, $p < 0.0001$) was found, indicating that maternal caregivers who reported more psychosomatic symptoms tended to report more depressive symptoms. Primary caregivers who reported use of health or mental health services on the Adult Mental Health Service Utilization questionnaire also reported a significantly higher ($t(-9.3)$, $df = (277,858)$, $p < 0.001$) number of psychosomatic symptoms ($M = 30.7$, $SD = 6.85$) on the HOS than those who reported no service use ($M = 26.5$, $SD = 5.36$).

**References and Bibliography**

Butler, M. C., & Jones, A. P. (1979). The Health Opinion Survey reconsidered: Dimensionality, reliability, and validity. Journal of Clinical Psychology, 35(3), 554-559.

MacMillan, A. M. (1957). The Health Opinion Survey: Technique for estimating the prevalence of psychoneurotic and related types of disorder in communities. Psychological Reports, 3, 325-339.

Murphy, J. M (1990). Depression screening instruments: History and issues. In C. C. Attkisson, & J. M. Zich (Eds.), Depression in primary care: Screening and detection (pp. 65-83). New York, NY: Routledge.

Star, S. A. (1950). "The screening of psychoneurotics in the army: Technical development of tests." In S. A. Stouffer, L. Guttman, E. A. Suchman, P. F. Lazarfield, S. A. Star and J. A. Clausen (Eds.) Measurement and Prediction (pp. 486-547). Princeton, NJ.: Princeton University Press.

Tousignant, M. & Denis, G. (1975). Psychiatric patients and the "untreated" cases of epidemiological surveys: A comparative analysis of the self-concept. Social Science &

Medicine, 9(1) 39-42.

Tousignant, M., Denis, G., & Lachapelle, R. (1974). Some considerations concerning the validity and use of the Health Opinion Survey. Journal of Health and Social Behavior,15(3), 241-252.

Vega, A.W., Kolody, B., & Warheit, G. (1985). Psychoneuroses among Mexican Americans and other whites: Prevalence and caseness. American Journal of Public Health, 75(5), 323-527.

Vega, W.A., Warheit, G., & Palacio, R. (1985). Psychiatric symptomatology among Mexican American farmworkers. Social Science and Medicine, 20(1), 39-45.

**Table 1. Mean Scores and Cronbach's Alpha Coefficients by Race and Study Site**

**Age 4 Interview**

| | N | M (SD) | α |
|---|---|---|---|
| *Total* | 1140 | 27.55 (6.03) | .84 |
| *Race* | | | |
| White | 395 | 27.79 (6.17) | .84 |
| Black | 580 | 27.34 (5.83) | .84 |
| Hispanic | 81 | 27.69 (6.72) | .87 |
| Multiracial | 37 | 29.05 (5.32) | .77 |
| Other | 44 | 26.73 (6.60) | .88 |
| *Study Site* | | | |
| EA | 237 | 27.31 (5.99) | .85 |
| MW | 122 | 27.78 (6.31) | .86 |
| SO | 218 | 28.28 (6.19) | .84 |
| SW | 313 | 26.05 (5.60) | .84 |
| NW | 250 | 28.91 (5.90) | .81 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

# Health Opinion Survey

# (HOSA)

I am going to ask about a number of health problems people sometimes have.

Please tell me if you have any of these problems:

**(HAND CARD)**
**1 = Hardly ever or never**
**2 = Sometimes**
**3 = Often**
**-- = No response**

| | | HE | S | O | NR |
|---|---|---|---|---|---|
| 1. | Do your hands ever tremble enough to bother you? | 1 | 2 | 3 | -- |
| 2. | Are you troubled by your hands or feet sweating so that they feel damp and clammy? | 1 | 2 | 3 | -- |
| 3. | Are you bothered by your heart beating hard? | 1 | 2 | 3 | -- |
| 4. | Do you tend to feel tired in the morning? | 1 | 2 | 3 | -- |
| 5. | Do you have any trouble getting to sleep or staying asleep? | 1 | 2 | 3 | -- |
| 6. | How often are you bothered by an upset stomach? | 1 | 2 | 3 | -- |
| 7. | Are you bothered by nightmares (dreams that frighten or upset you) | 1 | 2 | 3 | -- |
| 8. | Are you ever troubled by “cold sweats”? (feel a chill, but are sweating at the same time) | 1 | 2 | 3 | -- |
| 9. | Do you feel that you are bothered by all sorts (different kinds) of ailments in different parts of your body? | 1 | 2 | 3 | -- |
| 10. | Do you have loss of appetite? | 1 | 2 | 3 | -- |

**1 = Hardly ever or never**
**2 = Sometimes**
**3 = Often**
**-- = No response**

| | | HE | S | O | NR |
|---|---|---|---|---|---|
| 11. | Does ill health effect the amount of work (or housework) that you do? | 1 | 2 | 3 | -- |
| 12. | Do you ever feel weak all over? | 1 | 2 | 3 | -- |
| 13. | Do you feel spells of dizziness? | 1 | 2 | 3 | -- |
| 14. | Do you tend to lose weight when you worry? | 1 | 2 | 3 | -- |
| 15. | Are you bothered by shortness of breath when you are not exercising or working hard? | 1 | 2 | 3 | -- |
| 16. | Do you feel healthy enough to carry out the things that you would like to do? | 1 | 2 | 3 | -- |
| 17. | Do you smoke a lot? | 1 | 2 | 3 | -- |
| 18. | Do you have any particular physical or health trouble? | 1 | 2 | 3 | -- |
| 19. | Are you ever bothered by nervousness | 1 | 2 | 3 | -- |
| 20. | Have you ever felt that you were going to have a nervous breakdown? | 1 | 2 | 3 | -- |

# Household Composition: Household Information Form and Family Chart

LONGSCAN 1991

## Description of Measure

*Purpose*

To gather information about the number of people living in the subject child's household and their relationship to the child.

*Conceptual Organization*

Data on household composition are recorded using the Family Chart. The chart allows the interviewer to list, with the respondent's help, every member of the current household, as well as each member's age, gender, and relationship to both the respondent and to the subject child. At the LONGSCAN Pre-Age 4, Age 4 and Age 6 interviews, the key data items were recorded on a separate form, the Household Information Form (HOMA).The instrument asks for the number of children and adults living in the home, categorized by relationship to the subject child. Other items include whether the subject child is the oldest child in the home, the total number of people in the household, and whether the respondent is currently living with a partner.

*Materials*

Non-copyrighted forms are included in this manual.

*Time Required*

Less than 10 minutes, depending on the number of people in the household.

*Administration Method*

The interviewer asks the respondent to list all household members by first name only (to safeguard confidentiality). The names, ages, and relationship of each member to the study participants are recorded on the family chart. At Pre-Age 4, Age 4 and at Age 6, the interviewer uses the information in the Family Chart to complete the Household Information Form (HOMA) after the interview.

*Training*

Minimal

**Scoring**

*Score Types*

Individual items

Number of adults, adult/child ratio, presence of unrelated individuals, household size, etc.

**LONGSCAN Use**

*Data Points*

Pre-Age 4, Ages 4, 6, 8 12 & 14

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

Pre-Age 4, Age 4, and Age 6: HOMA

Age 8: FCA

Age 12 & 14: FCHB. Administered by telephone prior to the interview at Age 14.

*Rationale*

Household composition (including number of household members, number of children, child-adult ratio, and the presence of unrelated males and of multiple generations within the household) and relationship of the caregiver to the child (e.g., foster parent vs. non-foster parent) may have an effect on child functioning or risk for maltreatment.

**Results**

*Descriptive Statistics*

Table 1 is a cross-tabulation between child race and primary caregiver race. While there is a high correspondence between caregiver and child race, it is not safe to assume that they are the same. Not surprisingly, the largest difference observed between caregiver and child race is

among children who are described as multiracial.

**Table 1 about here**

Table 2 displays information about household composition as reported by caregivers at the Age 4 interview. The average family in the LONGSCAN sample had 5 members with about 1.8 children for every adult. The child-adult ratio was higher in Black and Hispanic families than in the White and Multiracial families. Surprisingly, given the large proportion of Blacks within their samples, the EA and SO sites had the lowest ratios of children to adults. This indicates that the child-adult ratios observed by race were not consistent across sites.

**Table 2 about here**

Table 3 describes the relationships of adults in the household to the child at the time of the Age 4 interview. One quarter of all the children lived in homes in which neither biological parent was present. This was primarily due to the high proportion of children in the SW site (65%) living in such circumstances. Of the children living in households without biological parents, 30% were living with a foster parent, 28% were living with grandparents, 21% were living with adoptive parents, and another 21% were living under some other type of arrangement. The NW site had the highest percentage of children living in households which included the mother's partner, as well as the highest percentage of children living in households with only one adult. The SW site, in addition to being the site with the highest percentage of children not living with a biological parent and living in foster care, also had the highest percentage of children living in homes with an adult male to whom they were unrelated. Black children were more likely than children of other races to live in homes with only one adult, and were also more likely to be living with a grandparent.

**Table 3 about here**

Tables 4, 5, and 6 present data comparable to those presented in tables 1, 2 and 3 from the Age 6 interview. The distribution of child race by caregiver race was stable from Age 4 to Age 6 (Tables 1 and 4). Table 5 shows that from Age 4 to Age 6 the average number of adults in the household decreased slightly, while the average number of children remained stable. Thus,

the child/adult ratio is higher at Age 6 across all sites except the MW and SW sites, and particularly in the homes of Black and Multiracial children.

**Table 4 about here**

**Table 5 about here**

Table 6 indicates that the proportion of children living with neither biological parent increased from Age 4 to Age 6 at all sites except the SW. The number of children living in single parent (only one adult) families also increased at all sites from Age 4 to Age 6.

**Table 6 about here**

**Table 1. Child Race by Primary Caregiver Race**

**Age 4 Interview (N = 1144)**

| Child Race | Caregiver Race | | | | |
|---|---|---|---|---|---|
| | White (396) | Black (584) | Hispanic (83) | Multiracial (37) | Other (44) |
| White (328) | 308 | 3 | 6 | 7 | 4 |
| Black (584) | 4 | 564 | 4 | 4 | 8 |
| Hispanic (80) | 11 | 1 | 65 | 1 | 2 |
| Multiracial (127) | 70 | 11 | 8 | 24 | 14 |
| Other (25) | 3 | 5 | 0 | 1 | 16 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. Household Composition Characteristics**

**Age 4 Interview**

| | N | People in Home M (SD) | Adults in Home M (SD) | Children in Home M (SD) | Child/ Adult Ratio M (SD) | Subject Child is Oldest in Home (%) |
|---|---|---|---|---|---|---|
| *Total* | 1143 | 4.87 (1.95) | 1.91 (0.83) | 2.97 (1.71) | 1.82 (1.31) | 38.0 |
| *Child Race* | | | | | | |
| White | 327 | 4.59 (1.66) | 1.92 (0.70) | 2.67 (1.50) | 1.58 (1.12) | 42.0 |
| Black | 583 | 5.06 (2.09) | 1.91 (0.94) | 3.15 (1.80) | 1.97 (1.42) | 35.3 |
| Hispanic | 80 | 5.33 (2.16) | 1.91 (0.73) | 3.41 (1.96) | 2.05 (1.37) | 30.0 |
| Multiracial | 127 | 4.57 (1.73) | 1.87 (0.72) | 2.70 (1.50) | 1.61 (1.07) | 46.5 |
| Other | 25 | 4.36 (1.75) | 1.80 (0.82) | 2.56 (1.33) | 1.67 (0.98) | 28.0 |
| *Study Site* | | | | | | |
| EA | 236 | 4.97 (1.93) | 2.08 (1.07) | 2.89 (1.48) | 1.70 (1.17) | 33.3 |
| MW | 122 | 5.44 (2.26) | 1.97 (0.80) | 3.48 (2.17) | 2.08 (1.74) | 32.0 |
| SO | 219 | 4.55 (1.73) | 1.95 (0.83) | 2.60 (1.44) | 1.56 (1.09) | 58.3 |
| SW | 317 | 5.17 (2.09) | 1.82 (0.68) | 3.35 (1.93) | 2.08 (1.45) | 28.7 |
| NW | 249 | 4.40 (1.64) | 1.77 (0.75) | 2.63 (1.39) | 1.71 (1.07) | 39.4 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 3. Characteristics of Adults in Child's Home**

**Age 4 Interview**

| | N | Neither Biol Parent % | Caregiver and Partner % | Only One Adult % | Adult Male Non-relative % | Grand-mother or Grand-father % | Mother or father, and grand-parent % | Foster parent % |
|---|---|---|---|---|---|---|---|---|
| *Total* | 1146 | 25.5 | 7.9 | 31.0 | 4.5 | 22.0 | 15.1 | 7.8 |
| *Child Race* | | | | | | | | |
| White | 328 | 24.1 | 11.9 | 22.9 | 4.6 | 14.9 | 8.5 | 7.9 |
| Black | 585 | 21.2 | 6.0 | 36.1 | 3.6 | 27.2 | 20.7 | 5.8 |
| Hispanic | 80 | 42.5 | 1.3 | 28.8 | 5.0 | 21.3 | 7.5 | 13.8 |
| Multiracial | 127 | 36.2 | 9.5 | 30.7 | 7.9 | 17.3 | 11.0 | 12.6 |
| Other | 25 | 24.0 | 12.0 | 28.0 | 4.0 | 20.0 | 16.0 | 8.0 |
| Study Site | | | | | | | | |
| EA | 236 | 6.4 | 6.4 | 30.1 | 3.8 | 30.5 | 27.1 | 1.7 |
| MW | 123 | 4.9 | 5.7 | 25.2 | 2.4 | 22.8 | 19.5 | 0.8 |
| SO | 221 | 7.7 | 8.1 | 28.5 | 0.9 | 24.9 | 20.4 | 1.4 |
| SW | 317 | 65.0 | 1.9 | 31.6 | 8.5 | 18.3 | 5.1 | 20.8 |
| NW | 249 | 18.5 | 17.7 | 36.1 | 4.0 | 16.1 | 9.6 | 6.0 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 4. Child Race by Primary Caregiver Race**

**Age 6 Interview**

**(N = 1152)**

| | **Caregiver Race** | | | | |
|---|---|---|---|---|---|
| | White (347) | Black (536) | Hispanic (51) | Multiracial (28) | Other (25) |
| Child Race | | | | | |
| White (295) | 296 | 1 | 3 | 4 | 5 |
| Black (531) | 5 | 600 | 3 | 2 | 2 |
| Hispanic (50) | 12 | 1 | 66 | 0 | 0 |
| Multiracial (94) | 72 | 15 | 10 | 26 | 10 |
| Other (17) | 2 | 4 | 0 | 1 | 12 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

**Table 5. Household Composition Characteristics**

**Age 6 Interview**

| | N | People in Home M (SD) | Adults in Home M (SD) | Children in Home M (SD) | Child/ Adult Ratio M (SD) | Subject Child is Oldest in Home (%) |
|---|---|---|---|---|---|---|
| *Total* | 1158 | 4.81 (1.81) | 1.81 (0.79) | 3.00 (1.59) | 1.96 (1.33) | 38.0 |
| *Child Race* | | | | | | |
| White | 309 | 4.61 (1.66) | 1.94 (0.74) | 2.68 (1.42) | 1.59 (1.14) | 42.0 |
| Black | 617 | 4.88 (1.88) | 1.71 (0.80) | 3.16 (1.64) | 2.19 (1.43) | 38.0 |
| Hispanic | 80 | 5.31 (2.08) | 1.99 (0.79) | 3.33 (1.89) | 1.95 (1.24) | 28.0 |
| Multiracial | 133 | 4.67 (1.64) | 1.84 (0.78) | 2.83 (1.41) | 1.81 (1.19) | 41.0 |
| Other | 19 | 4.42 (1.46) | 1.84 (0.69) | 2.58 (1.26) | 1.46 (0.83) | 32.0 |
| *Study Site* | | | | | | |
| EA | 250 | 4.56 (1.51) | 1.76 (.76) | 2.81 (1.37) | 1.94 (1.39) | 43.0 |
| MW | 164 | 5.34 (2.10) | 1.92 (0.84) | 3.41 (1.82) | 2.06 (1.26) | 27.0 |
| SO | 220 | 4.38 (1.57) | 1.74 (0.77) | 2.64 (1.34) | 1.80 (1.20) | 60.0 |
| SW | 292 | 5.15 (2.00) | 1.84 (0.74) | 3.31 (1.85) | 2.10 (1.51) | 27.0 |
| NW | 232 | 4.66 (1.68) | 1.81 (0.85) | 2.84 (1.35) | 1.86 (1.19) | 36.0 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

**Table 6. Characteristics of Adults in Child's Home**

**Age 6 Interview**

| | N | Neither Biol Parent % | Mother's Partner % | Only One Adult % | Adult Male Non-relative % | Grand-mother or Grand-father % | Mother or father, and grand-parent % | Foster parent % |
|---|---|---|---|---|---|---|---|---|
| *Total* | 1158 | 26.6 | 6.0 | 37.0 | 5.2 | 21.2 | 12.1 | 4.8 |
| *Child Race* | | | | | | | | |
| White | 309 | 23.3 | 8.4 | 25.2 | 6.2 | 16.2 | 9.1 | 3.3 |
| Black | 617 | 25.0 | 3.9 | 45.2 | 4.1 | 25.6 | 15.4 | 4.2 |
| Hispanic | 80 | 42.5 | 3.8 | 25.0 | 6.3 | 20.0 | 8.8 | 6.3 |
| Multiracial | 133 | 33.1 | 10.5 | 33.8 | 7.5 | 15.8 | 6.8 | 7.6 |
| Other | 19 | 21.1 | 15.8 | 31.6 | 5.3 | 5.3 | 5.3 | 21.1 |
| *Study Site** | | | | | | | | |
| EA | 250 | 14.0 | 6.0 | 40.4 | 3.2 | 26.8 | 19.6 | 2.4 |
| MW | 164 | 9.8 | 5.5 | 31.7 | 1.8 | 25.0 | 18.9 | 0.6 |
| SO | 220 | 14.1 | 3.6 | 41.4 | 0.5 | 25.5 | 14.1 | 0.0 |
| SW | 292 | 59.9 | 2.4 | 32.9 | 12.7 | 16.4 | 4.1 | 10.9 |
| NW | 232 | 22.0 | 13.4 | 37.9 | 4.7 | 14.7 | 7.3 | 7.4 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

## Household Composition: Household Information Form and Family Chart (HOMA)

Codesheet corresponding to Family Chart

1. CODE **THE NUMBER** OF PEOPLE IN EACH RELATIONSHIP TO CHILD. THE TOTAL OF THE NUMBERS IN COLUMNS A-Y SHOULD EQUAL THE TOTAL NUMBER OF PEOPLE LIVING IN CHILD'S HOUSE MINUS ONE (THE CHILD).

**ADULTS (18 AND OVER, OR EMANCIPATED)**

| | | | | | |
|---|---|---|---|---|---|
| ___ | A | Biologic Mother | ___ | I | Biologic Father |
| ___ | B | Adoptive Mother | ___ | J | Adoptive Father |
| ___ | C | Stepmother | ___ | K | Stepfather |
| ___ | D | Foster Mother | ___ | L | Foster Father |
| ___ | E | Grandmother | ___ | M | Grandfather |
| ___ | F | Father's Partner | ___ | N | Mother's Partner |
| ___ | G | Sister (18 or older) | __ | O | Brother (18 or older) |
| ___ | H | Other Female Relative | ___ | P | Other Male Relative |
| ___ | I | Female Non-Relative | ___ | Q | Male Non-Relative |

**CHILDREN (UNDER 18)**

| | | | | | |
|---|---|---|---|---|---|
| ___ | R | Sister, Half Sister | ___ | V | Brother, Half Brother |
| ___ | S | Step-Sister | ___ | W | Step-Brother |
| ___ | T | Other Female Relative | ___ | X | Other Male Relative |
| ___ | U | Female Non-Relative | ___ | Y | Male Non-Relative |

2. Is (CHILD) the oldest child living in the home right now?

0 NO
1 YES

3. How many people live in (CHILD)'s household right now (<u>including child</u>)?

___ ___ TOTAL # OF PEOPLE

4. Is respondent currently living in a "spouse-like" relationship with:

1 NO ADULT MATE
2 HUSBAND
3 MALE PARTNER
4 FEMALE PARTNER
-- DON'T KNOW

# Infant Characteristics Questionnaire-6 Month Form

Bates, J. E., Freeland, C., and Lounsbury, M. L. 1979

## Description of Measure

*Purpose*

To measure parental perception of infant temperament, focusing on difficult temperament.

*Conceptual Organization*

Three separate Infant Characteristic Questionnaire (ICQ) forms have been developed, targeting infants at approximately 6, 13, and 24 months of age. This description will focus only on the form developed for 6 month olds (ICQ-6): This is the instrument used by LONGSCAN.

The ICQ-6 is comprised of 24 items describing infant behavior. The parent or primary caregiver ranks each item on a 7-point scale, indicating the level of perceived difficulty in dealing with the described behavior. Four subscales have been identified through principal components analyses: Fussy/Difficult, Unadaptable, Dull, and Unpredictable.

*Item Origin/Selection Process*

The items were suggested by Thomas and colleagues' temperament dimensions (Thomas, Chess, & Birch, 1968; Thomas et al., 1963), Prechtl's changeability and soothability variables (1963), and Robson and Moss's fussiness and sociability variables (1970).

*Materials*

Non-copyrighted forms, included in this manual. (See also Bates, Freeland, & Lounsbury, 1979).

*Time Required*

Approximately 5 minutes

*Administration Method*

Interviewer- or self-administered

**Training**

Minimal

**Scoring**

*Score Types*

Responses may range from 1 (very easy) to 7 (very difficult). For example, the first item on the instrument asks: “How easy or difficult is it for you to calm or soothe your baby when he/she is upset?"

Scales are composed as follows (See Bates, 1980 and Bates, Freeland, & Lounsbury, 1979 for details.):

- Fussy/Difficult: Items 1, 5, 6, 12, 13, 14, 17, 22, and 24
- Unadaptable: Items 7, 9, 10, 11, and 20
- Dull: Items 15 (reverse-coded), 16, 18, and 23
- Unpredictable: Items 2, 3, 4, 8, 19, and 21

*Score Interpretation*

Higher scores indicate a more difficult temperament.

**Norms and/or Comparative Data**

Bates, Freeland, and Lounsbury (1979) generated normative scores for the ICQ-6 from a sample of 365 children. The mean scale scores for 6-month olds are as follows: Fussy/Difficult, $\underline{M}$ = 17.77, $\underline{SD}$ = 5.88; Unadaptable, $\underline{M}$ = 8.90, $\underline{SD}$ = 1.85; Dull, $\underline{M}$ = 5.88, $\underline{SD}$ = 1.85; and Unpredictable, $\underline{M}$ = 7.32, $\underline{SD}$ = 2.69.

**Psychometric Support**

*Reliability*

The authors assessed the internal consistency of the ICQ-6 on a cross-validation sample (N = 196) with the following alpha coefficients: Fussy/Difficult, .79; Unadaptability, .75; Dull, .39 and Unpredictable, .50. Test-retest reliability scores computed over 2 to 10 day intervals were as follows: Fussy/Difficult, .70; Unadaptability, .54; Dull, .57, and Unpredictable, .47

(Bates, Freeland, & Lounsbury, 1979).

*Validity*

Fussy/Difficult is the most clear-cut and valid factor of the ICQ-6 because behavior characterizing this dimension of an infant's temperament is most readily recognized. Convergence has been noted between ICQ factors and comparable variables in other parent report temperament instruments (Bates, Freeland, & Lounsbury, 1979).

**LONGSCAN Use**

*Data Points*

Pre-Age 4: NW & MW sites only

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

ICQA

*Rationale*

Child temperament may be linked to maternal abuse potential (Dukewich, Borkowski, & Whitman, 1996), child resilience (Wyman, Cowen, Work, & Parker, 1991), and how children respond to maltreatment (internalizing vs. externalizing, etc.).

*Administration and Scoring Notes*

LONGSCAN used the ICQ for children whose earliest LONGSCAN interview occurred when the child was 24 months of age or younger. For children between the ages of 0 and 8 months, the primary caregiver was asked to respond based on the child's current behavior. For children between the ages of 9 and 24 months, the caregiver was asked to give a retrospective report of the child based on behavior at around 6 months of age.

Because of the age restrictions, only the MW and NW sites administered this instrument as part of their initial LONGSCAN protocol. Although the other three sites, SO, SW and EA,

also administered this form to their samples the collection of these data preceded their joining the LONGSCAN consortium, and are thus not currently in the LONGSCAN database.

**Results**

*Descriptive Statistics*

Table 1 lists the mean scores, by race and study site, for each ICQ subscale as reported by maternal caregivers at the Pre-age 4 interview. There were few differences by site or race. The means for the Unadaptable and Dull subscales were high compared to those found in normative samples.

*Table 1 about here*

*Reliability*

Internal consistency reliability of the ICQ subscales was assessed by calculating Cronbach's alpha coefficients for each subscale. Table 2 lists these values by race and study site. Like Bates, we found the Fussy/Difficult subscale to have the highest reliability. The Unadaptable subscale also showed acceptable internal consistency, while the Dull and Unpredictable scales demonstrated the lowest internal consistency reliability.

*Table 2 about here*

**References and Bibliography**

Bates, J. E., Freeland, C. A., & Lounsbury, M. L. (1979). Measurement of infant difficultness. Child Development, 50, 794-803.

Bates, J. E. (1980). The concept of difficult temperament. Merrill-Palmer Quarterly, 26, 299-319.

Dukewich, T. L., Borkowski, J. G., & Whitman, T. L. (1996). Adolescent mothers and child abuse potential: An evaluation of risk factors. Child Abuse and Neglect, 20(11), 1031-1047.

Prechtl, H. F. R. (1963). The mother-child interaction in babies with minimal brain damage: A follow-up study. In B.M. Foss (Ed.), Determinants of infant behavior: Vol. 2. New

York: Wiley.

Robson, K. L., & Moss, H. A. (1970). Patterns and determinants of maternal attachment. Journal of Pediatrics, 77, 967-985.

Thomas, A., Chess, S., Birch, H. G., Hertzig, M. E., & Korn, S. (1963). Behavioral individuality in early childhood. New York: New York University Press.

Thomas, A., Chess, S., & Birch, H. G. (1968). Temperament and behavior disorders in children. New York: New York University Press.

Wyman, P. A., Cowen, E. L., Work, W. C., & Parker, G. R. (1991). Developmental and family milieu correlates of resilience in urban children who have experienced major life-stress. American Journal of Community Psychology, 19, 405-426.

**Table 1. Mean Scores for ICQ Subscales by Race and Study Site**

**Pre-Age 4 Interview**

| | N | Fussy/Difficult M (SD) | Unadaptable M (SD) | Dull M (SD) | Unpredictable M (SD) |
|---|---|---|---|---|---|
| *Total* | 401 | 17.83 (6.52) | 11.65 (4.9) | 7.11 (3.43) | 7.81 (3.53) |
| *Race* | | | | | |
| White | 80 | 17.48 (6.25) | 10.45 (5.14) | 6.40 (2.84) | 7.96 (3.44) |
| Black | 178 | 17.85 (6.51) | 12.62 (4.79) | 7.47 (3.48) | 8.07 (3.73) |
| Hispanic | 48 | 16.23 (5.90) | 10.64 (4.64) | 7.23 (3.83) | 6.88 (3.26) |
| Multiracial | 88 | 18.99 (7.02) | 11.61 (4.75) | 6.93 (3.48) | 7.64 (3.26) |
| Other | 7 | 17.71 (6.70) | 8.71 (3.55) | 7.57 (4.31) | 7.86 (4.14) |
| *Study Site** | | | | | |
| MW | 319 | 17.88 (6.37) | 11.54 (4.79) | 7.08 (3.39) | 7.82 (3.43) |
| NW | 82 | 17.66 (7.12) | 12.05 (5.30) | 7.24 (3.60) | 7.77 (3.90) |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

*Data for the NW site are for the portion of their sample who were under the age of 25 months at the time of the baseline interview.

**Table 2. Cronbach's Alpha Values for ICQ Subscale by Race and Study Site**

**Pre-Age 4 Interview**

| | Fussy/Difficult | Unadaptable | Dull | Unpredictable |
|---|---|---|---|---|
| **Total** | .74 | .67 | .48 | .49 |
| **Race of Child** | | | | |
| White | .77 | .79 | .42 | .47 |
| Black | .72 | .61 | .42 | .53 |
| Hispanic | .68 | .60 | .63 | .51 |
| Multiracial | .77 | .64 | .50 | .33 |
| Other | .76 | .66 | .71 | .75 |
| *Study Site* | | | | |
| MW | .72 | .64 | .46 | .47 |
| NW | .79 | .75 | .56 | .56 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

# Infant Characteristics Questionnaire-6 Month Form

# (ICQA)

**0-23 months only**; 2 years and older, go to page 17 and final questions

The next set of questions are about infant behavior.
Let's look at the book together while I read the questions and your choices for the answers.

(IF CHILD IS **0-8 MONTHS**, SAY. . .)
Then you can tell me the number that seems right for your baby. "About Average" means how you think the typical baby would behave.

(IF CHILD IS BETWEEN **9-24 MONTHS,** SAY . . .)
I want you to think back to when (CHILD) was a younger infant, around 6 months old. Tell me the number that would describe (CHILD) back then---to the best of your recollection.

1. How easy or difficult is(was) it for you to calm or soothe your baby when he/she is upset?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Very easy** | | | **About Average** | | | **Difficult** |

2. How easy or difficult is it for you to predict when he/she will go to sleep and wake up?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Very easy** | | | **About Average** | | | **Difficult** |

3. How easy or difficult is it for you to predict when he/she will become hungry?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Very easy** | | | **About Average** | | | **Difficult** |

4. How easy or difficult is it for you to know what's bothering him/her when he/she cries or fusses?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Very easy** | | | **About Average** | | | **Difficult** |

5. How many times per day, on the average, did your baby get fussy and irritable--for either short or long periods of time?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Never** | **1-2 times per day** | **3-4 times per day** | **5-6 times per day** | **7-9 times per day** | **10-14 times per day** | **More than 15** |

6. How much does he/she cry and fuss in general?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Very little; much less than the average baby** | | | **Average amount about as much as the average baby** | | | **A lot; much more than the average baby** |

7. How did he/she respond to his/her first bath?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Very well baby loved** | | | **Neither liked it nor disliked it** | | | **Terribly- didn't like** |

8. How did he/she respond to his/her first solid food?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Very favorably liked it immediately** | | | **Neither liked nor disliked it** | | | **Very negatively- didn't like at all** |

9. How did your baby typically respond to a new person?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **almost always responded favorably** | | | **responded favorably about half the time** | | | **almost always responded negatively at first** |

10. How did your baby typically respond to being in a new place?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **almost always responded favorably** | | | **responded favorably about half the time** | | | **almost always responded negatively at first** |

11. How well did your baby adapt to things (such as in items 7-10) eventually?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **very well, always liked it eventually** | | | **ended up liking it about half the time** | | | **almost always disliked it in the end** |

12. How easily did your infant get upset?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **very hard to upset--even by things that upset most babies** | | | **about average** | | | **very easily upset by things that wouldn't bother most babies** |

13. When your baby got upset (e.g., before feeding, during diapering, etc.), how vigorously or loudly did he/she cry and fuss?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **very mild intensity or loudness** | | | **moderate intensity or loudness** | | | **very loud or intense, really cuts loose** |

14. How did your baby react when you were dressing him/her?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **very well-- liked it** | | | **about average-- didn't mind it** | | | **didn't like it at all** |

15. How active was your baby in general?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **very calm and quiet** | | | **average** | | | **very active and vigorous** |

16. How much did your baby smile and make happy sounds?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **a great deal, much more than most infants** | | | **an average amount** | | | **very little much less than most infants** |

17. What kind of mood was your baby generally in?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **very happy and cheerful** | | | **neither serious nor cheerful** | | | **serious** |

18. How much did your baby enjoy playing games with you?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **a great deal, really loved it** | | | **about average** | | | **very little, didn't like it very much** |

19. How much did your baby want to be held?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **wanted to be free most of the time** | | | **sometimes wanted to be held; sometimes not** | | | **a great deal-- wanted to be held almost all the time** |

20. How did your baby respond to disruptions and changes in the everyday routine, such as when you went to church or a meeting, on trips, etc?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **very favorably, didn't get upset** | | | **about average** | | | **very unfavorably, got quite upset** |

21. How easy was it for you to predict when your baby would need a diaper change?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **very easy** | | | **about average** | | | **very difficult** |

22. How changeable was your baby's mood?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **changed seldom, and changed slowly** | | | **about average** | | | **changed often and rapidly** |

23. How excited did your baby become when people played with or talked to him/her?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **very excited** | | | **about average** | | | **not at all** |

24. Please rate the overall degree of difficulty your baby would have presented for the average mother.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **super easy** | | | **ordinary, some problems** | | | **highly difficult to deal with** |

# Interviewer Ratings of Caregiver Respondent and Home Environment

LONGSCAN 1991

## Description of Measure

*Purpose*

To assess the interviewer's impression of the interview, the respondent, the respondent's home, and the neighborhood environment in which the interview took place.

*Conceptual Organization*

At the Pre-Age 4 and Age 4 interviews the instrument addresses the appearance of the respondent (2 items), the quality of the respondent's responses (4 items), the condition of the respondent's residence (3 items), and the impression of the respondent's neighborhood (5 items). The last five items relate to items or interactions observed in the home environment that are thought to be related to cognitive stimulation for the young child and were administered only at the Pre-Age 4, Age 4 and Age 6 interviews. At Age 6, items assess neighborhood safety and privacy of the interview.

*Item Origin/Selection Process*

The items were selected to obtain the interviewer's perception of the respondent, her cooperation with and comprehension of the interview and the home and neighborhood environment in which the interview took place. The five cognitive stimulation items were based on items from the HOME Inventory (Bradley & Caldwell, 1979; Bradley, Caldwell, & Rock, 1988) that assess the availability of toys and learning materials, and the stimulation and responsivity reflected in parent-child interactions. LONGSCAN has used these items as an index of the child-centeredness of the home.

*Materials*

Non-copyrighted forms are included in this manual.

*Time Required*

Less than 5 minutes

*Administration Method*

Completed by interviewer

**Training**

Minimal

**Scoring**

*Score Types*

Individual item scores. The interviewer ranks each of the first ten items on a 5-point scale ranging from 1 (the most positive impression) to 5 (the most negative impression). Response categories are specific to the item. For example, responses for "condition of the residence" range from 1 (well-maintained) to 5 (dilapidated). The cognitive stimulation items are simply rated as being present or not present. Items 11 through 15 may be combined to create an index of the cognitive stimulation observed in the home environment. This index should be used with caution due to the potential for measurement error. The interviewer may have been in only one room of the home during the interview or the child may not have been present during the interview.

**LONGSCAN Use**

*Data Points*

Pre-Age 4, Ages 4, 6, 8, 12 & 14

*Respondent*

Interviewer

*Mnemonic and Version*

Pre-Age 4, Age 4: MRAA. An alternate form, the CRAA, was administered if two maternal caregivers were interviewed (See Administration Scoring and Notes.).

Age 6: MR6A. Two questions were added regarding neighborhood safety and privacy of interview.

Age 8: RRA. Items 1 and 2, and 11 through 15 were dropped.

Age 12 & 14: IRRB. Administered by A-CASI. Same as RRA, with the addition of two items rating the respondent's response to and ease of use of the A-CASI system.

*Rationale*

Interviewer ratings are used to assess the respondent's engagement with the interview and to obtain the interviewer's impressions of the environment in which the subject child is developing. The provision of appropriate play and learning materials, and maternal involvement with the child have been shown to predict cognitive development, maladaptive behavior, and social competence (Bradley, et al., 1994).

*Administration and Scoring Notes*

At the Pre-Age 4/Age 4 interviews we discovered that there was rarely a need for two caregivers to be interviewed. Thus, the alternate form (CRAA) was eliminated for future data points.

The EA and the MW sites did not complete ratings of the home and neighborhood because their interviews were conducted during clinic visits, rather than home visits. Only the respondent was rated.

**Results**

Table 1 provides frequency distributions by race and study site on selected questions related to the respondent, the home, and the neighborhood at the Age 4 interview. For each item, we report the percentage scoring the two most negative ratings. Comprehension rates varied little across study sites, and about 4% of the mothers were rated as having difficulty comprehending some of the interview questions. Not surprisingly, interviewers perceived Hispanic mothers as having the most difficult time with comprehension. Although a Spanish translation was used, the language level of the interview may have been too high given the very low educational levels of the Hispanic caregivers. Also, the interviewers' ratings may have been affected by the interviewers being non-Hispanic.

**Table 1 about here**

Interviewers also rated the Hispanic respondents as living in the least dilapidated

dwellings and in the safest neighborhoods. The Black and Multiracial respondents were rated as living in the most dilapidated and least safe neighborhoods. When neighborhood variables were examined by site, some interesting differences emerged. While the MW and NW neighborhoods were far more likely to be rated as unsafe as they were dilapidated, the opposite was true in SW. The SO site had almost equal rates (a little more than 20% for both) of perceived dilapidated and unsafe neighborhoods.

Table 2 presents the frequency distribution for the interviewer ratings based on the Age 6 interview. The frequencies do not vary substantially from those at Age 4 with two exceptions: the Hispanic caregivers were much less likely to be rated as having poor comprehension of the interview at Age 6 (3.6%) compared to Age 4 (19.8%). Also, caregivers from the SW site were less likely at Age 6 to be living in dilapidated housing, but more likely to be in unsafe neighborhoods.

**Table 2 about here**

Tables 3 and 4 provide means, standard deviations, and internal consistency reliability coefficients (Cronbach's alpha) for ratings of indicators of cognitive stimulation for the child. Initial analyses of the scale showed evidence that the item "parent talks with child" diminished the internal-consistency of the scale. This is likely because children were not present during the caregiver interviews. Thus, this item was dropped from further analysis and a 4-item scale was constructed and labeled Child-Centered Household. Because each item was coded as "observed" (1) or "not observed" (0), summary values for the scale could range from 0 to 4.

**Table 3 about here**

**Table 4 about here**

The mean value for Child-Centered Household across samples was approximately 2 at the Age 4 interview, indicating that on average only two out of the four indicators were observed in LONGSCAN homes. This number increased to almost 3 by the Age 6 interview. The mean score for White families was somewhat higher than the overall mean, and the mean scores for Black families was somewhat lower. SO and NW had lower scores than SW and MW. The MW

and SW sites showed the greatest improvement, but the sample size is so small at MW at age 6 that the reliability is questionable. As such, the SW site showed the greatest estimated improvement.

*Validity*

To assess validity, the interviewer ratings of the home environment at Age 6 were compared to caregivers' self-reports on these measures from the Neighborhood Short Form. Interviewers' rating neighborhoods as "unsafe" was significantly associated with caregivers' reports of drugs in the neighborhood ($\chi^2$ (12, N = 525) = 184.6, p < 0.001). Interviewer ratings of neighborhood safety were also associated with caregiver reports of neighborhood safety ($\chi^2$ (12, N = 525) = 141.7, p < 0.001). In addition, the interviewer's rating of the condition of respondent's residence was positively related to Neighborhood Pride ($\chi^2$ (12, N = 525) = 13.5, p < 0.001), and inversely related to the item in the Neighborhood Short Form, "The buildings and yards in this neighborhood are really run down" ($\chi^2$ (12, N = 525) = 17.0, p < 0.001).

**References and Bibliography**

Bradley, R. H., & Caldwell, B. M. (1979). Home observation for measurement of the environment: A revision of the preschool scale. American Journal of Mental Deficiency, 84(3), 235-244.

Bradley, R. H., Caldwell, B. M., & Rock, S. L. (1988). Home environment and school performance: A ten-year follow-up and examination of three models of environmental action. Child Development, 59 (4), 852-867.

Bradley, R. H., Mundford, D. J., Whiteside, L., Caldwell, B. M., Casey, P. H., Kirby, R. S., & Hansen, S. (1994). A re-examination of the association between HOME scores and income. Nursing Research, 43(5), 260-266.

**Table 1. Interviewer Ratings of Respondent and Home Environment by Race and Study Site**

**Age 4 Interview**

| | N | Not Comprehending (%) | Dilapidated (%) | Unsafe Neighborhood (%) |
|---|---|---|---|---|
| | 902 | 4.2 | 12.5 | 16.3 |
| | | | | |
| White | 379 | 3.2 | 11.7 | 9.5 |
| Black | 363 | 6.4 | 14.3 | 27.6 |
| Hispanic | 81 | 19.8 | 8.6 | 3.4 |
| Multiracial | 36 | 0 | 14.7 | 20.5 |
| Other | 41 | 2.4 | 9.7 | 4.8 |
| Site* | | | | |
| MW | 116 | 0 | 12.9 | 36.2 |
| SO | 219 | 7.7 | 21.1 | 22.9 |
| SW | 319 | 5.0 | 11.0 | 5.9 |
| NW | 240 | 6.8 | 6.3 | 14.3 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

* EA did not use the interviewer ratings because all interviews were conducted in the clinic rather than the respondents' homes. The MW site did not rate the quality of respondent's responses at the Age 4 interview.

**Table 2. Interviewer Ratings of Respondent and Home Environment by Race and Study Site**

**Age 6 Interview**

| | N | Not Comprehending (%) | Dilapidated (%) | Unsafe Neighborhood (%) |
|---|---|---|---|---|
| **Total** | 976 | 3.9 | 11.6 | 14.6 |
| **Race** | | | | |
| White | 384 | 1.6 | 9.0 | 6.2 |
| Black | 607 | 4.8 | 14.6 | 25.1 |
| Hispanic | 87 | 3.5 | 7.0 | 13.3 |
| Multiracial | 32 | 3.1 | 16.7 | 13.0 |
| Other | 28 | 17.9 | 16.7 | 4.2 |
| | | | | |
| **Study Site*** | | | | |
| EA | 235 | 3.0 | -- | -- |
| MW | 159 | 3.1 | 14.3 | 42.1 |
| SO | 217 | 6.9 | 24.6 | 27.2 |
| SW | 295 | 1.7 | 5.6 | 10.5 |
| NW | 231 | 5.2 | 7.8 | 6.1 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

* EA did not rate the home environment because all interviews took place in the clinic.

**Table 3. Means, Standard Deviations, and Cronbach's Alphas for Interviewer Ratings of Child-Centered Household by Race and Study Site**

**Age 4 Interview**

| | N | M (SD) | Cronbach's α |
|---|---|---|---|
| **Total** | 868 | 1.99 (1.42) | .72 |
| **Race** | | | |
| White | 365 | 2.39 (1.35) | .69 |
| Black | 345 | 1.56 (1.38) | .71 |
| Hispanic | 81 | 2.04 (1.39) | .70 |
| Multiracial | 36 | 1.88 (1.27) | .61 |
| Other | 41 | 2.05 (1.53) | .79 |
| **Study Site*** | | | |
| MW | 117 | 2.10 (1.57) | .82 |
| SO | 212 | 1.68 (1.46) | .76 |
| SW | 315 | 2.32 (1.28) | .62 |
| NW | 224 | 1.76 (1.36) | .70 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

* EA did not rate the home environment because all interviews took place in the clinic.

**Table 4. Means, Standard Deviations, and Cronbach's Alpha for Interviewer Ratings on Child-Centered Household by Race and Study Site**

**Age 6 Interview**

| | N | M (SD) | Cronbach's α |
|---|---|---|---|
| *Total* | 714 | 2.83 (1.60) | .70 |
| *Race* | | | |
| White | 320 | 3.14 (1.55) | .70 |
| Black | 288 | 2.50 (1.56) | .65 |
| Hispanic | 57 | 2.84 (1.74) | .82 |
| Multiracial | 24 | 2.63 (1.50) | .51 |
| Other | 24 | 2.83 (1.88) | .80 |
| *Study Site** | | | |
| SO | 202 | 2.74 (1.66) | .74 |
| SW | 287 | 3.49 (1.39) | .66 |
| NW | 217 | 2.02 (1.43) | .62 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

*EA & MW did not rate the home environment because interviews took place in the clinic.

## Interviewer Ratings of Home Environment

## Age 4 Interview

## (MRAA)

AFTER YOU HAVE SEPARATED FROM THE RESPONDENT, PLEASE COMPLETE THE FOLLOWING RATINGS BASED ON YOUR IMPRESSIONS. IF MATERNAL RESPONDENT AND CHILD RESPONDENT ARE THE SAME PERSON, DUPLICATE THE RATINGS ON BOTH RATING FORMS.

Appearance of respondent

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Neat | 1 | 2 | 3 | 4 | 5 | Sloppy | |
| 2. | Rested | 1 | 2 | 3 | 4 | 5 | Tired | |

In the course of the interview, my impression of the respondent was that she was:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 3. | Cooperative | 1 | 2 | 3 | 4 | 5 | Uncooperative | |
| 4. | Truthful | 1 | 2 | 3 | 4 | 5 | Dishonest | |
| 5. | Open | 1 | 2 | 3 | 4 | 5 | Guarded | |
| 6. | Comprehending | 1 | 2 | 3 | 4 | 5 | Not comprehending | |

Condition of Residence

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 7. | Clean | 1 | 2 | 3 | 4 | 5 | Dirty | -- | NA |
| 8. | Safe | 1 | 2 | 3 | 4 | 5 | Unsafe | -- | NA |
| 9. | Well Maintained | 1 | 2 | 3 | 4 | 5 | Dilapidated | -- | NA |

Impression of neighborhood

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 10. | Safe | 1 | 2 | 3 | 4 | 5 | Unsafe | -- | NA |

During your visit, did you see any of the following?

| | YES | NO | NA |
|---|---|---|---|
| 11. Children's books | 1 | 0 | -- |
| 12. Other reading material | 1 | 0 | -- |
| 13. Evidence of parent-child learning activities (i.e., artwork, cooking, reading, writing, counting, etc.) | 1 | 0 | -- |
| 14. Children's toys: purchased or home-constructed | 1 | 0 | -- |
| 15. Parent or other adult conversing **with** child | 1 | 0 | -- |

# Life Experiences Survey

Sarason, I., Johnson, J., and Siegel J. 1978

## Description of Measure

*Purpose*

To obtain a self-report of positive and negative events experienced over the previous year, and the perceived stress associated with those events.

*Conceptual Organization*

The original instrument includes 60 items divided into two sections. Section 1 contains 50 life changes that are common to individuals in a wide variety of situations (e.g., In the last year, did you get married?). Section 2 contains 10 items that are for students only.

## Item Origin/Selection Process

The items were chosen to represent life changes frequently experienced by individuals in the general population. Most of the items were based on existing life stress measures, in particular the Social Readjustment Rating Scale developed by Holmes and Rahe (1967).

*Materials*

Non-copyrighted LONGSCAN version of the form is included in this manual. (See Sarason, Johnson, & Siegel, 1978 for the original instrument.)

*Time Required*

10 minutes

*Administration Method*

Self- or interviewer-administered

## Training

Minimal

## Scoring

*Score Types*

Respondents rate each life event experienced on a 7-point scale ranging from -3 (extremely negative) to +3 (extremely positive). If an event did not occur, the item is coded as 0. Every event that occurred is coded as one "life change unit." These units can then be summed for a total score of recent life events. Positive and negative events can be summed separately, or they can be scored on the same scale using positive and negative numbers.

*Score Interpretation*

The authors' research (Sarason, Johnson, & Siegel, 1978) found that positive and negative life change scores exhibit different patterns of relationships with other measures (e. g., anxiety, depression).

**Norms and/or Comparative Data**

The original measure was normed on college students at the University of Washington. The mean total score for women was 16.61 (SD = 10.23), and for men was 15.97 (SD = 11.08) (Sarason, Johnson, & Siegel, 1978).

**Psychometric Support**

*Reliability*

The authors conducted two test-retest reliability studies on two groups of undergraduate psychology students (N = 34 and N = 58 respectively). Test-retest correlations for the positive change scores were .19 and .53 ($p < .001$), for the negative change scores were .56 and .88 ($p < .001$), and for the total change scores were .63 and .64 ($p < .001$). The authors note that the findings may have varied because of the small sample sizes. Also the 5-6 week test-retest interval may underestimate reliability because subjects may have experienced new events during the intervening period. (Sarason, Johnson, & Siegel, 1978).

*Validity*

The negative life change score significantly correlated with stress-related and self-rated depression measures. See Sarason, Johnson, and Siegel (1978) for details.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4: All sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

LESB

*Rationale*

Clearly, child outcomes are affected by family life experiences. The Life Experiences Survey was selected and adapted for use at the Pre-Age 4 interview because it is one of the most widely used measure of life events and because the SO site had used this measure prior to the Age 4 interview.

*Administration and Scoring Notes*

LONGSCAN shortened and modified Sarason's first 50 life events (including eliminating the student only section) to increase its utility and relevance for a less educated population. The revised instrument has 30 items, 25 of which overlap substantially with items from the original instrument. In some cases, LONGSCAN combined items to create one (e.g., death of close friend, family member, and spouse constitute 3 items in the original version, but only one in the LONGSCAN version). In other cases, two items were created out of one of Sarason's items (e.g., "Gained new family member through birth, adoption, or someone moving in," was separated for LONGSCAN purposes into "new baby," and "someone else moved into the household". LONGSCAN added the following inquiries: "entered a new school or training program" (from Sarason's student only section), "dropped out of school," "homeless for a period of time," and "victim of crime."

To facilitate administration, the vocabulary of the instrument was simplified (e.g., "change of residence," became "moved to a new place"; and "minor law violation" became

"trouble with the law."), and the response set was shortened from seven to five possible responses ranging from -2 ("very good") to +2 ("extremely bad").

**Results**

Table 1 displays the mean number of total life events, negative life events only (somewhat or extremely bad), and positive life events only (somewhat or very good), as reported by the 1147 maternal caregivers completing the instrument at the time of the Age 4 interview.

Out of the 30 life events queried, caregivers reported an average of about 4.5 events in the year preceding the Age 4 interview. The Hispanic caregivers, on average, reported fewer events, while the Multiracial caregivers reported more. Black and White caregivers had virtually the same mean number of total, positive, and negative events. NW caregivers reported a higher number of total events and negative events than those at the other four sites.

*Table 1 about here*

**References and Bibliography**

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-218.

Sarason, I., Johnson, J., & Siegel, J. (1978). Assessing the Impact of Life Changes: Development of the Life Experiences Survey. Journal of Consulting and Clinical Psychology, 46(5), 932-946.

**Table 1. Mean Number of Life Events by Race and Study Site**

**Age 4 Interview**

| | N | Number of Life Events M (SD) | Number of Negative Life Events M (SD) | Number of Positive Life Events M (SD) |
|---|---|---|---|---|
| **Total** | 1147 | 4.43 (3.04) | 1.76 (1.84) | 2.32 (1.87) |
| **Race** | | | | |
| White | 397 | 4.38 (2.99) | 1.74 (1.82) | 2.32 (1.84) |
| Black | 584 | 4.48 (3.06) | 1.82 (1.87) | 2.32 (1.86) |
| Hispanic | 82 | 3.85 (2.63) | 1.32 (1.47) | 2.08 (1.93) |
| Multiracial | 37 | 5.10 (3.97) | 2.18 (2.41) | 2.48 (2.31) |
| Other | 44 | 4.75 (3.10) | 1.68 (1.72) | 2.61 (1.91) |
| **Study Site** | | | | |
| EA | 237 | 4.38 (2.87) | 1.74 (1.86) | 2.34 (1.75) |
| MW | 123 | 4.55 (2.69) | 1.59 (1.45) | 2.50 (1.87) |
| SO | 221 | 4.48 (2.94) | 1.82 (1.72) | 2.33 (1.99) |
| SW | 316 | 3.84 (3.02) | 1.42 (1.74) | 2.04 (1.90) |
| NW | 250 | 5.13 (3.33) | 2.24 (2.15) | 2.56 (1.83) |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

Note: Positive and negative events don't add to total because events that are rated as "neither good nor bad" are included in total.

## Life Experiences Survey

## (LESB)

Now I'm going to read you a list of things that might happen to people in their lives. Please tell me if any of the following events have happened to you in the last year. For each event that's occurred to you in the past year, I'll also ask you how good or bad it was for you:

**(HAND CARD)**

**Was that . . .**

**1 Very good**
**2 Somewhat good**
**3 Neither good nor bad**
**4 Somewhat bad**
**5 Extremely bad**
**-- No response**

| NO | | | VG | SG | G/B | SB | EB | NR |
|---|---|---|---|---|---|---|---|---|
| | ***In the last year, (did you....)*** | | | | | | | |
| 0 | 1. | Get engaged? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 2. | Get married? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 3. | Break up with boyfriend? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 4. | Separate from spouse? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 5. | Divorce spouse? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 6. | Get back together with partner after break--up | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 7. | Get pregnant? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 8. | Lose a pregnancy thru abortion, miscarriage, still birth? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 9. | Get a new baby? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 10. | Someone else moved into household? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 11. | Move to new place? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 12. | Lose home through repossession or disaster? | 1 | 2 | 3 | 4 | 5 | -- |

**Was that . . .**

**1 Very good**
**2 Somewhat good**
**3 Neither good nor bad**
**4 Somewhat bad**
**5 Extremely bad**
**-- No response**

| NO | | | VG | SG | G/B | SB | EB | NR |
|---|---|---|---|---|---|---|---|---|
| 0 | 13. | Homeless for any period of time? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 14. | Income increase a lot? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 15. | Income decrease a lot? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 16. | Go deeply into debt? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 17. | Drop out of school? | 1 | 2 | 3 | 4 | 5 | -- |
| | | ***In the last year, (did you....)*** | | | | | | |
| 0 | 18. | Enter a new school or training program? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 19. | Graduate from school or training program? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 20. | Begin new job? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 21. | Get promotion at work? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 22. | Have trouble with superiors at work? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 23. | Lose job? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 24. | Have serious illness/injury? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 25. | Close friend/family member have serious illness/injury? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 26. | Close friend/family member die? | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 27. | Victim of crime? (you or spouse/partner) | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 28. | Trouble with the law? (you or (spouse/partner) | 1 | 2 | 3 | 4 | 5 | -- |

**Was that . . .**

**1 Very good**
**2 Somewhat good**
**3 Neither good nor bad**
**4 Somewhat bad**
**5 Extremely bad**
**-- No response**

| NO | | | VG | SG | G/B | SB | EB | NR |
|---|---|---|---|---|---|---|---|---|
| 0 | 29. | Spend time in jail/prison? (you or spouse/partner) | 1 | 2 | 3 | 4 | 5 | -- |
| 0 | 30. | Achieve something very important to you? | 1 | 2 | 3 | 4 | 5 | -- |

## Neighborhood Short Form

LONGSCAN 1991

### Description of Measure

*Purpose*

To measure primary caregivers' perception of neighborhood quality.

*Conceptual Organization*

The instrument includes nine items reflecting social support, safety, and neighborhood pride/morale.

*Item Origin/Selection Process*

The Neighborhood Short Form was developed by LONGSCAN based on a review of the literature. The items were selected to capture primary caregivers' perceptions of the degree of social support, safety, and sense of pride in the neighborhood in which they live.

*Materials*

Non-copyrighted form is included in this manual.

*Time Required*

Less than five minutes

*Administration Method*

Interviewer-administered

### Training

Minimal

### Scoring

*Score Types*

Respondents rank each item on a 4-point scale ranging from 1 (very much like my

neighborhood) to 4 (not at all like my neighborhood). A total neighborhood satisfaction score can be computed by summing scores across all 9 items (reverse coding is required for items 1, 4, 5, and 7). Subscale scores for the three *a priori* subscales are computed by summing items as follows:

- Safety: Items 3, 6, and 9
- Support: Items 1R, 4R, and 7R
- Pride/Morale: Items 2, 5R, and 8

(The letter "R" indicates items that are reverse-coded.)

*Score Interpretation*

Subscale scores can range from 3 to 12 with higher scores indicating a higher degree of the quality being measured.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4, 8: all sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

Pre-Age 4 and Age 4: NEIA

Age 8: NEA

*Rationale*

Neighborhood characteristics are potentially important risk or protective factors for child maltreatment and other child outcomes. At the Age 6 interview, an expanded version of the neighborhood measure was used which tapped more constructs related to community life (see Neighborhood Risk Assessment). At the Age 8 interview the Neighborhood Short Form was used again due to time constraints.

**Results**

Table 1 provides the mean total score for all nine items, and the mean score for each of the three subscales (Safety, Social Support, and Morale) by race and study site, as reported by caregivers at the Age 4 and 8 interviews.

**Table 1 about here**

Blacks reported having the lowest perceived levels of neighborhood safety, social support, and morale. This finding is consistent with other studies and may reflect problems of inner city living, including socioeconomic disadvantage, and segregated housing patterns. Furthermore, it reflects the fact that Black families were significantly poorer than other racial groups in the LONGSCAN sample.

With the exception of the SW site, the mean scores on the Neighborhood Short Form by study site appear to reflect the socioeconomic status of the respondents within the particular site. The two sites with the highest proportion of AFDC recipients, EA (77%) and MW (80%), exhibited the lowest scores on this form. The relatively high level of reported neighborhood quality for the SW site is probably due to the fact that a high percentage of children in that sample were living in foster families at the Age 4 interview.

*Reliability*

Table 2 displays the internal consistency reliability coefficients for the total scale and the subscales. All of the Cronbach's alpha values showed acceptable levels of reliability.

**Table 2 about here**

*Validity*

To assess validity, measures from this instrument were compared to the Interviewer Ratings of the Respondent and Home Environment from the Age 4 interview. Caregivers' reports of drugs in the neighborhood were significantly associated with the interviewers' rating neighborhoods as "unsafe" ($\chi^2$ (12, $\underline{N}$ = 525) = 184.6, $\underline{p} < 0.001$). Dangerousness of neighborhood was also related to the interviewer's rating of neighborhood safety ($\chi^2$ (12, $\underline{N}$ = 525) = 141.7, $\underline{p} < 0.001$). Neighborhood Pride/Morale was positively related to the interviewer's

rating of the condition of the housing in the neighborhood ($\chi^2$ (12, N = 525) = 13.5, p < 0.001). Likewise, Item 8, "the buildings and yards in this neighborhood are really run down", also showed a significant association with the interviewer's rating of the condition of the housing ($\chi^2$ (12, N = 525) = 17.0, p < 0.001).

**References and Bibliography**

Garbarino, J., & Sherman, D. (1980). High-risk neighborhoods and high risk families: the human ecology of child maltreatment. Child Development, 51(1), 188-198.

Garbarino, J., & Crouter, A. (1978). Defining the community context for parent-child relations: the correlates of child maltreatment. Child Development, 49(3), 604-16.

Korbin, J,. Coulton, C. (1995). Neighborhood Impact on Child Abuse and Neglect: Final Report on Grant #90CA-1494. Washington, DC: National Center on Child Abuse and Neglect.

**Table 1. Mean Scores on Neighborhood Short Form by Race and Study Site**

**Age 4 Interview**

| | N | Total Score M (SD) | Safety M (SD) | Social Support M (SD) | Morale M (SD) |
|---|---|---|---|---|---|
| **Total** | 1101 | 25.5 (7.06) | 8.3 (3.05) | 8.7 (2.66) | 8.7 (2.75) |
| **Race** | | | | | |
| White | 386 | 26.7 (6.88) | 8.8 (2.89) | 8.7 (2.62) | 9.1 (2.66) |
| Black | 556 | 24.3 (7.18) | 7.6 (3.10) | 8.4 (2.73) | 8.2 (2.77) |
| Hispanic | 78 | 26.6 (6.32) | 9.0 (2.88) | 8.7 (2.34) | 9.0 (2.69) |
| Multiracial | 37 | 25.7 (7.06) | 8.2 (2.99) | 9.0 (2.64) | 8.7 (2.64) |
| Other | 43 | 27.5 (6.12) | 9.3 (2.80) | 9.2 (2.41) | 9.3 (2.67) |
| **Study Site** | | | | | |
| EA | 227 | 23.4 (6.99) | 7.0 (3.01) | 8.6 (2.76) | 7.8 (2.70) |
| MW | 120 | 22.1 (6.92) | 6.9 (3.05) | 8.2 (2.53) | 7.4 (2.82) |
| SO | 219 | 25.2 (6.87) | 8.4 (3.02) | 8.2 (2.69) | 8.6 (2.59) |
| SW | 293 | 28.5 (6.34) | 9.4 (2.72) | 9.4 (2.50) | 9.7 (2.51) |
| NW | 242 | 26.0 (6.83) | 8.6 (2.88) | 8.5 (2.63) | 8.8 (2.68) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. Cronbach's Alpha Coefficients from the Neighborhood Short form by Race and Study Site**

**Age 4 Interview**

| | Total Scale | Safety | Social Support | Morale |
|---|---|---|---|---|
| *Total* | .87 | .85 | .79 | .73 |
| *Race* | | | | |
| White | .88 | .85 | .81 | .71 |
| Black | .86 | .84 | .78 | .71 |
| Hispanic | .82 | .81 | .63 | .76 |
| Multiracial | .87 | .83 | .82 | .67 |
| Other | .81 | .86 | .78 | .66 |
| *Study Site* | | | | |
| EA | .85 | .81 | .78 | .68 |
| MW | .88 | .91 | .79 | .76 |
| SO | .86 | .84 | .77 | .64 |
| SW | .86 | .80 | .76 | .74 |
| NW | .87 | .85 | .80 | .75 |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

## Neighborhood Short Form

## (NEIA)

Now I'd like to ask you a few questions about your neighborhood (community).

IF RESPONDENT LIVES IN A RURAL AREA, SUBSTITUTE THE WORD *COMMUNITY*. IF RESPONDENT HAS NO IDENTIFIABLE NEIGHBORHOOD OR COMMUNITY, CIRCLE -- BELOW AND GO TO NEXT PAGE.

-- (NOT APPLICABLE)

You respond by telling me if what I say sounds

**(HAND CARD)**

**1 Very much like your neighborhood/community**
**2 Somewhat like . . . . . .**
**3 Very little like . . . . . .**
**4 Not at all like . . . . . .**
**-- = NA/NR**

| | VM | S | VL | NAA | NR |
|---|---|---|---|---|---|
| 1. People in this neighborhood help each other out. | 1 | 2 | 3 | 4 | -- |
| 2. Most of the people in this neighborhood are on welfare. | 1 | 2 | 3 | 4 | -- |
| 3. There's a lot of drug abuse in this neighborhood. | 1 | 2 | 3 | 4 | -- |
| 4. We watch out for each other's children in this neighborhood. | 1 | 2 | 3 | 4 | -- |
| 5. I'm proud to live in this neighborhood. | 1 | 2 | 3 | 4 | -- |
| 6. It's dangerous in this neighborhood. | 1 | 2 | 3 | 4 | -- |
| 7. There are people I can count on in this neighborhood. | 1 | 2 | 3 | 4 | -- |
| 8. The buildings and yards in this neighborhood are really run down. | 1 | 2 | 3 | 4 | -- |
| 9. There are people in this neighborhood who might be a bad influence on my child(ren). | 1 | 2 | 3 | 4 | -- |

# Peabody Picture Vocabulary Test-Revised (PPVT-R)

Dunn, L. M. and Dunn, L. 1981

## Description of Measure

*Purpose*

To measure the receptive vocabulary, of children (age 2.5 and older) and adults.

*Conceptual Organization*

Receptive vocabulary is vocabulary understood, as opposed to vocabulary used. The instrument consists of 175 items of increasing difficulty, organized as "plates" containing four pictures per plate. Participants are asked to choose the picture that corresponds to the stimulus word from the four response options. Two parallel forms, L and M, are available.

*Item Origin/Selection Process*

The PPVT-R was originally developed in 1959 and was revised in 1981. Item analysis procedures were used to select items for the updated version. Items were chosen to minimize sex, regional, and racial bias (Dunn & Dunn, 1981).

*Materials*

A series of plates, test scoring forms, and manuals are required for administration of either Form L or Form M. The plates are bound in an easel-book. A technical supplement that elaborates on test construction and standardization procedures is also available. All materials are available from the publisher.

*Time Required*

10-20 minutes

*Administration Method*

Interviewer-administered, ideally in a quiet room away from other people. The interviewer presents a series of plates, one word at a time, to the subject. For each plate, a stimulus word is read and the subject is asked to indicate which of the four pictures on the plate

corresponds to the word. A basal is established to determine the appropriate starting point for scores and administration proceeds until a ceiling is reached.

**Training**

Substantial training is required in order to engage the child initially, and to administer and score the instrument correctly. Special attention is required for scoring when multiple basals or ceilings are obtained (See manual, p. 13.) Basic training guidelines are included in the manual.

**Scoring**

*Score Types*

Raw scores are calculated, then converted to standard score equivalents using tables from the manual. Age- and grade-referenced standard score equivalents are available in the manual (Dunn & Dunn, 1981).

*Score Interpretation*

The PPVT-R uses a mean of 100 and a standard deviation of 15. Scores from 85 to 115 are considered average. Scores from 70 to 85 are considered moderately low, and scores less than 70 are extremely low. Likewise, scores from 115 to 130 are considered moderately high and scores greater than 130 are extremely high.

**Norms and/or Comparative Data**

The PPVT-R was standardized on a representative national sample of 4,200 youth (aged 2.5 to 17 years) and 828 adults (aged 18 - 40 years) based on the 1970 Census (Dunn & Dunn, 1981). The sample was stratified by age, sex, race, geographical region, community size, and occupation of major wage earner in the household.

**Psychometric Support**

*Reliability*

Split-half correlation coefficients were generated to assess internal consistency. For children and youth, coefficients ranged from .67 to .88 on Form L (median = .80) (Dunn & Dunn, 1981). Alternate form reliabilities for a sample of 642 children, given both forms in

counterbalanced order, ranged from .74 to .89 (median = .81).

*Validity*

The PPVT-R correlates highly with other vocabulary tests, with an overall median value of .71 across various measures (Dunn & Dunn, 1981). It correlates moderately well with scholastic aptitude and verbal intelligence tests: median correlation, .62 with the Stanford-Binet (Dunn & Dunn, 1981); and median correlation, .68 with the WISC-R (Alpeter & Handel, 1985; Breen & Siewart, 1983; Davis & Kramer, 1985; Haddad, 1986).

While few individual items have been found to be culturally or racially biased (Reynolds, Wilson, & Chatman, 1984), ethnic minority children tend to score lower on the PPVT-R than the WISC-R (Argulewicz & Abel, 1984; Bracken, Prasse, & McCallum, 1984; Kresheck & Nicolosi, 1973; Naglieri & Yazzi, 1983; Washington & Craig, 1992). In a review of studies evaluating the PPVT-R, Sattler (1992) cautions that the PPVT-R should not be used in isolation as either a screening device to measure intellectual functioning or as a measure of the general cognitive abilities of ethnic minority children. Use of the PPVT-R in this manner could grossly underestimate cognitive abilities.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4: all sites

*Respondent*

Child

*Mnemonic and Version*

PPVA

*Rationale*

LONGSCAN chose to use the PPVT-R because it provides a quick measure of receptive vocabulary. Receptive vocabulary has been shown to predict school success and facility in using

Standard English, which is recognized as a prerequisite to success in work, business, and higher education.

*Administration and Scoring Notes*

Form L was chosen for consistent use across all LONGSCAN study sites. Children at the EA site were not administered the PPVT-R at the Age 4 interview, but were administered the form as part of local protocols at Age 3 and Age 5.

At the SW and MW sites, children for whom Spanish was their first language received the Spanish version of the PPVT-R.

**Results**

*Descriptive Statistics*

Table 1 provides the mean scores and standard deviations on the PPVT-R of the children assessed at the Age 4 interview by race and study site. The majority of children scored below average, in the moderately low range. The mean scores for Black and Hispanic children were lower than those for White children, similar to findings in previous studies (Sattler & Altes, 1984; Washington & Craig, 1992). In fact, mean scores for all LONGSCAN racial groups were lower than those reported for comparable racial groups in other studies. This may reflect the high-risk, low SES status of our samples.

*Table 1 about here*

*Validity*

As a measure of criterion validity, the PPVT-R scores were correlated with scores on the communication domain of the BSTA. Analyzing Age 4 data by race, a low but significant correlation between the two instruments was found for Whites ($\underline{r} = .44$) only.

**Publisher Information**

American Guidance Service
Circle Pines, MN 55014-1796

**References and Bibliography**

Alpeter, T., & Handel, P. J. (1986). A factor analytic investigation of the use of the PPVT-R as a measure of general achievement. Journal of Clinical Psychology, 41, 540-543.

Argulewicz, E. N., & Abel, R. (1984). Internal evidence of bias in the PPVT-R for Anglo-American and Mexican-American children. Journal of School Psychology, 22, 299-303.

Bracken, B. A., Prasse, D. P., & McCallum, R. S. (1984). Peabody Picture Vocabulary Test-Revised: An appraisal and review. School Psychology Review, 13(1), 49-60.

Breen, M. J., & Siewart, J. C. (1983). Comparison of the PPVT-R and the WISC-R for learning disabled students and referred students. Journal of Psychoeducational Assessment, 1, 95-99.

Davis and Kramer (1985). Comparison of the PPVT-R and WISC-R: A validation study with second-grade students. Psychology in the Schools, 22(3), 265-268.

Dunn, L. M., & Dunn, L. (1981). Peabody Picture Vocabulary Test - Revised Manual for Forms L and M. Circle Pines, MN: American Guidance Service.

Haddad (1986). Comparison of the WISC-R, PPVT-R, and PPVT for learning disabled children. Psychological Reports, 58(2), 659-662.

Kresheck, I., & Nicolosi, S. (1973). A comparison of black and white children's scores on the PPVT. Language, Speech, and Hearing Services in Schools, 4, 37-40.

Naglieri, J. A., & Yazzi, C. (1983). Comparison of the WISC-R and PPVT-R with Navajo children. Journal of Clinical Psychology, 39, 598-600.

Reynolds, C. R., Wilson, V. L., & Chatman, S. P. (1984). Item bias on the 1981 revision of the Peabody Picture Vocabulary Test using a new method of detecting bias. Journal of Psyhcoeducational Assessment, 2, 219-224.

Sattler, J. M. (1992). Assessment of children. San Diego, CA: Sattler.

Sattler, J. M., & Altes, L. M. (1984). Performance of bilingual and monolingual Hispanic children on the Peabody Picture Vocabulary Test-Revised and the McCarthy Perceptual Performance Scale. Psychology in the Schools, 21, 313-316.

Umbel, V. M., Pearson, B. Z., Fernandez, M. C., & Oller, D. K. (1992) Measuring bilingual children's receptive vocabularies. Child Development, 63, 1012-1020.

Washington, J. A., & Craig, H. K. (1992). Performances of low-income, African American preschool and kindergarten children on the Peabody Picture Vocabulary Test-Revised. Language, Speech, and Hearing Services in Schools, 23, 329-333.

**Table 1. Mean Scores on the PPVT-R by Race and Study Site**

**Age 4 Interview**

| | N | M (SD) |
|---|---|---|
| **Total** | 868 | 80.42 (17.60) |
| *Race* | | |
| White | 310 | 88.49 (16.43) |
| Black | 353 | 74.01 (16.11) |
| Hispanic | 70 | 76.60 (15.31) |
| Multiracial | 112 | 83.17 (15.04) |
| Other | 22 | 68.50 (16.20) |
| **Study Site** | | |
| MW | 111 | 74.52 (18.71) |
| SO | 218 | 82.11 (17.68) |
| SW | 298 | 80.98 (16.72) |
| NW | 241 | 80.90 (16.81) |

*Source.* Based on data received at the LONGSCAN Coordinating center by 7/8/97.

*Note.* The EA site did not administer the PPVT-R at Age 4.

# Perinatal Form

LONGSCAN 1991

## Description of Measure

*Purpose*

To collect data on receipt of prenatal care, neonatal health problems, and receipt of parenting education.

*Conceptual Organization*

Mothers are asked to recall the period surrounding the participant child's birth. The instrument is comprised of 11 items. The first four assess prenatal care received and birth weight. The next four questions ask about prematurity, hospitalization in the neonatal period, and whether the child was administered breathing assistance at birth. The last three questions ask about the respondent's participation in parenting education in the perinatal period.

*Item Origin/Selection Process*

The instrument was developed by LONGSCAN based on widely agreed upon indicators of neonatal health status and the adequacy of prenatal care (with the notable exception of length of gestation), and receipt of parenting information and support.

*Materials*

Non-copyrighted form in included in this manual.

*Time Required*

Less than 5 minutes

*Administration Method*

Interviewer-administered

## Training

Minimal

**Scoring**

*Score Types*

Most of the response categories are dichotomous (yes/no), with the exception of month prenatal care began (which ranges from 1 to 9), number of prenatal visits, and birth weight. Low birth weight is conventionally defined as less than 5 lbs. and 8 oz (or 2500 g).

Standard indices of the adequacy of prenatal care (e.g., Kessner et al 1973; Kotelchuck 1994) cannot be computed as the length of gestation was not asked. However, the number of visits reported and the month in pregnancy at which care was initiated can be used as crude indicators of having received adequate care or not, and possible health problems that may have complicated the pregnancy. For timing of initiation, the following categories can be used: Adequate Plus: 1st or 2nd month, Adequate: 3rd or 4th month, Intermediate: 5th or 6th month, Inadequate: 7th month or later or no prenatal care received. Women whose pregnancies last 38 weeks or longer typically have between 10-14 prenatal care visits (Alexander & Korenbrot, 1995, 1998,). A high number of visits relative to the timing of initiation of prenatal care (e.g., greater than 14) may be a marker for morbidity in pregnancy. Conversely, having fewer than 10 visits, if prenatal care was initiated early in pregnancy, may indicate less than adequate care or preterm delivery.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: MW & NW sites only

Age 4: all sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

PERA

*Rationale*

Inadequate prenatal care, low birthweight, and birth problems all contribute to high risk status for poor development and potentially for child maltreatment as well. Early parenting education may be a protective factor.

## Results

*Descriptive Statistics*

Table 1 displays data on prenatal care and birth weight by race and site, as reported by caregivers at the Age 4 interview. An average of approximately 14 prenatal care visits were reported. This average appears high given that over thirty percent of the mothers did not initiate care until the second trimester or later, or got no care. A higher level of morbidity would be expected in the LONGSCAN samples. The SO sample, which was drawn from women who met state health department criteria for high-risk infant tracking, and the SW sample, all of whose infants were placed in foster care early in life, received the least adequate care based on the percentage initiating care late or having received no care. Hispanic mothers were less likely than those of other ethnic groups to begin prenatal care in the first trimester, and mothers of multiracial children were the most likely not to have received any prenatal care (8.2%).

**Table 1 about here**

## References and Bibliography

Alexander, G. R., & Korenbrot, C. C. (1998, December 16). The role of prenatal care in preventing low birth weight. [On-line Serial]. URL http://www.futureofchildren.org/LBW. Also in The Future of Children, 5(1), 1995.

Kessner, D. M., Singer, J., Kalk, C. W., Schlesinger, E. R. (1973). Infant death: An analysis by maternal risk and health care. In: Contrasts in Health Status, Vol 1 (pp. 50-95). Washington, DC: Institute of Medicine, National Academy of Sciences..

Kotelchuck, M. (1994). An evaluation of the Kessner Adequacy of Prenatal Care Index and a proposed adequacy of prenatal care utilization index. American Journal of Public Health 84, (9).1414-1420.

**Table 1. Perinatal Characteristics by Child Race and Study Site**

**Age 4 Interview**

| | | *Initiation of Prenatal Care:* | | | **Number of Prenatal Visits** | **Birthweight in Pounds** |
|---|---|---|---|---|---|---|
| | **N** | **Second Trimester (%)** | **Third Trimester (%)** | **No Care (%)** | **M (SD)** | **M (SD)** |
| *Total* | 928 | 21.4 | 2.3 | 6.9 | 14.5 (9.8) | 6.6 (1.7) |
| *Race* | | | | | | |
| White | 268 | 17.2 | 2.9 | 7.1 | 14.3 (7.24) | 6.9 (1.85) |
| Black | 495 | 25.0 | 1.8 | 7.1 | 14.6 (11.16) | 6.3 (1.64) |
| Hispanic | 46 | 26.2 | 4.8 | 4.3 | 14.7 (14.48) | 7.1 (1.42) |
| Multiracial | 97 | 16.5 | 1.2 | 8.2 | 14.4 (6.60) | 7.2 (1.61) |
| Other | 22 | 4.5 | 4.5 | 0.0 | 13.33 (6.46) | 7.0 (2.00) |
| *Study Site* | | | | | | |
| EA | 228 | 19.0 | 1.5 | 4.8 | 15.2 (10.59) | 6.5 (1.44) |
| MW | 123 | 12.5 | .8 | 2.4 | 14.5 (7.47) | 6.9 (1.85) |
| SO | 214 | 30.3 | 2.7 | 8.9 | 14.2 (8.93) | 6.2 (1.87) |
| SW | 120 | 25.5 | 3.1 | 14.2 | 14.3 (13.93) | 6.7 (1.64) |
| NW | 243 | 18.9 | 3.3 | 5.8 | 14.1 (8.72) | 7.0 (1.72) |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

## Perinatal Form

## (PERA)

Now I am going to ask you a little about "around the time" when (CHILD) was born.

1. Did you receive any prenatal care while you were pregnant with (CHILD)?

0 NO ---> GO TO Q. 4

1 YES

2. In what month of pregnancy did you first get prenatal care from a nurse, midwife, or doctor?

**(Circle one)**

1 2 3 4 5 6 7 8 9 --

3. Approximately how many prenatal visits did you have in all?

__ __ visits (2 DIGITS)

How much did (CHILD) weigh at birth?

____ lbs ____ oz (If "don't know", -- lbs. -- oz)

4a. 4b.

5. Was (CHILD) born earlier than expected? . . .<u>more than 3 weeks earlier ?</u>

(SCORE ONLY FOR < 37 WKS GESTATION)

0 NO

1 YES

-- DK

6a. Did (CHILD) receive any newborn care in an intensive care unit, premature nursery, or any other type of special care unit?

0 NO---> GO TO Q. 7

1 YES

-- DK

6b. How many nights did (CHILD) stay in the special care unit?

__ __ nights (2 DIGITS)

7. Right after birth, was (CHILD) given oxygen or any other help in breathing?

0 NO

1 YES

-- DK

8a. Around the time of the birth of your child . . .

Did someone visit you regularly (3 or more visits) at home to help you with parenting?

0 NO

1 YES --->Who? 1 RELATIVE/FRIEND

2 PROFESSIONAL HELPER

3 BOTH

8b. Did you participate in a group with other new parents to talk about parenting and your child?

0 NO

1 YES

8c. Did you take a class in parenting?

0 NO

1 YES

# Preschool Symptom Self-Report (PRESS)

Martini, R. D., Strayhorn, J. M., and Puig-Antich, J. 1990

## Description of Measure

*Purpose*

To obtain self-reports of depressive symptoms from preschool-aged children.

*Conceptual Organization*

The PRESS is a pictorial self-report instrument, consisting of 25 items, each comprised of two illustrations on a page. One drawing illustrates a problem behavior or a symptom; the other illustrates the absence of that problem or symptom. The child respondent is asked to indicate which picture is most like him or her. Sample items include feeling sad; feeling bad about oneself; thinking one's parents don't love him/her.

*Item Origin/Selection Process*

The PRESS is based on items from the Child Behavior Checklist [CBCL] for children aged 2 to 3 years (Achenbach & Howell, 1987), the General Rating of Affective Symptoms in Preschoolers [GRASP] (Kashani, Holcomb, & Orvaschel, 1986), major depressive items of the DSM-III-R (American Psychiatric Association, 1994), and internalizing items from the CBCL for children ages 4 to 18 years (Achenbach & Edelbrock, 1983).

*Materials*

Illustration booklets (separate male and female version are available) and response sheets are available from the author.

*Time Required*

5 minutes

*Administration Method*

For each item, the interviewer displays two illustrations that represent opposite feelings. The interviewer points to one illustration and reads the caption describing the feeling depicted in the illustration. The interviewer then points to the other illustration and reads that caption. The

child answers by indicating which of the two illustrations is most like him or her.

**Training**

Minimal

**Scoring**

*Score Types*

Each item represents a symptom, and children's responses are coded as present or absent. The total score is derived from counting the number of items indicating the presence of a symptom.

*Score Interpretation*

A higher score reflects more depressed affect.

**Norms and/or Comparative Data**

In a pilot study by the authors (Martini, Strayhorn, & Puig-Antich, 1990), of 84 Head Start children, ages 3 to 5 years, an average endorsement rate of 5.75 items (23%) was found.

**Psychometric Support**

*Reliability*

Test-retest reliability (time interval not reported) was reported by the authors as an intraclass coefficient of 0.86 ($\underline{p} = 0.0005$). The internal consistency reliability coefficient (Cronbach's alpha) was .89.

*Validity*

Parent and teacher responses to the PRESS were compared to their responses to the following comparable, but non-pictorial formatted depression instruments: the CBCL (Achenbach & Edelbrock, 1983), the Teacher Report Form (Achenbach & Edelbrock, 1986), and the GRASP (Kashani, Holcomb, Orvaschel, 1986). The authors noted that, at the time of the PRESS's development, there was no existing self-report instrument for preschool children that could serve as an anchoring criterion. Thus, they examined the validity of the PRESS as an instrument for adults to rate children's symptoms, reasoning that if the PRESS proved valid for

parent and teacher report there would be at least an enhanced probability that it would also be valid for children. Moderate correlations were detected (parent PRESS and parent GRASP, r = .54; parent PRESS and parent CBCL, r = .55; teacher PRESS and teacher GRASP, r = .68; teacher PRESS and teacher TRF, r = .63). Parents' responses to the PRESS were compared to teachers' responses to the PRESS, with a resulting correlation of .37 (Martini, Strayhorn, & Puig-Antich, 1990).

The authors also examined the degree to which the child's self-report on the PRESS agreed with the parent's and teacher's reports on the PRESS. Both correlations were low and non-significant. The authors conclude that these results could indicate poor validity of the child's self-report, or that other factors could explain the lack of correspondence (e.g., the parent and teacher may not be accurate reporters of the child's internal state).

More recently, Cohen and Mannarino (1996) used the PRESS as an outcome measure in a study of sexually abused preschool children. They found that the children's PRESS scores were very low (lower than the mean reported by the authors for the Head Start sample) and that the pre- and post treatment PRESS scores did not differ significantly. Cohen and Mannarino also noted a social desirability bias in responses.

**LONGSCAN Use**

*Data Points*

Age 4, 6

*Respondent*

Child

*Mnemonic and Version*

Age 4: PREA

Age 6: PREB. Differs only in that responses are listed as A and B, rather than 1 and 2.

*Rationale*

Research indicates that other informants (e.g., parent, teacher) may not be able to accurately report on children's internal state (Achenbach & Edelbrock, 1983). The PRESS is one

of the few self-reports of affective state available for this age group.

*Administration and Scoring Notes*

The PRESS is scored by first converting all 1s to 0s, and all 2's to 1's. (For the PRESS at Age 6, which has As and Bs rather than 1s and 2s, A is scored as 0, and B is scored as 1. Items 1, 2, 7, 8, 12, 15, 16, 18, 20, 22, 23, and 24 are reverse coded. Finally, all items are summed for a total score. The total score indicates the number of depressive symptoms.

## Results

*Descriptive Statistics*

Table 1 shows the mean depression scores and standard deviations for children by race and study site at the Age 4 and Age 6 interviews. Site differences observed at Age 4 (NW with highest scores and SO with lowest) were no longer apparent at the Age 6 interview and children were reporting fewer depressive symptoms at Age 6. At Age 6, the PRESS scores declined for every site and every racial group.

**Table 1 about here**

*Reliability*

Table 2 displays internal consistency reliability statistics (Cronbach's alpha) for the PRESS at the time of the Age 4 and Age 6 interviews by race and study site. The overall alphas (.82 at Age 4 and .85 at Age 6) are slightly lower than those reported by the authors.

**Table 2 about here**

*Validity*

Like Cohen and Mannarino (1996) we expected children in the LONGSCAN sample to have elevated rates of depressive symptomatology, because of the high-risk criteria used for sample selection. At Age 4 the total sample mean was comparable to that reported by Martini, Strayhorn, and Puig-Antich (1990) for their sample of Head Start children. Age 4 PRESS scores were compared with caregivers' reports of child symptomatology on the CBCL. Resulting

correlations between the PRESS and the CBCL Total Score, Externalizing Score, and Internalizing Score were all non-significant. While finding agreement would have provided evidence that the children's responses were meaningful, the converse is not necessarily true, as poor agreement between parent and child report of the child symptomatology is not uncommon (Rapee, Barrett, Dadds, & Evans, 1994; Verhulst, Althaus, & Berden, 1987).

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**References and Bibliography**

Achenbach, T. M., & Edelbrock, C. (1983). Manual for the Child Behavior Checklist and Revised Child Behavior Profile. Burlington, VT: University of Vermont Department of Psychiatry.

Achenbach, T. M., & Edelbrock C. (1986). Manual for the Teacher's Report Form and Teacher Version of the Child Behavior Profile. Burlington, VT: University of Vermont, Department of Psychiatry.

Achenbach, T. M., & Howell, C. T. (1987). The empirically based assessment of the behavioral/emotional problems of two and three year old children. Journal of Abnormal Child Psychology, 15, 629-650.

American Psychiatric Association. (1994). Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition, Revised [DSM-III-R]. Washington, DC: APA.

Cohen, J. A., & Mannarino, A. P. (1996). Factors that mediate treatment outcomes of sexually abused preschool children. Journal of the American Academy of Child and Adolescent Psychiatry, 35(10), 1402-1410.

Kashani, J. H., Holcomb, W. R., & Orvaschel, H. (1986). Depression and depressive symptoms in preschool children from the general population. American Journal of Psychiatry,

143(9), 1138-1143.

Martini, D. R., Strayhorn, J. M., & Puig-Antich, J. (1990). A symptom self-report measure for preschool children, Journal of the American Academy of Child and Adolescent Psychiatry, 29(4), 594-600.

Rapee, R. M., Barrett, P. M., Dadds, M. R., & Evans, L. (1994). Reliability of the DSM-III--R childhood anxiety disorders using structured interview: Interrater and parent-child agreement. Journal of the American Academy of Child & Adolescent Psychiatry, 33(7), 984-992.

Verhulst, F. C., Althaus, M., & Berden, G. F. (1987). The Child Assessment Schedule: Parent-child agreement and validity measures. Journal of Child Psychology & Psychiatry & Allied Disciplines, 28(3), 455-466.

**Table 1. Mean Scores on the PRESS by Race and Study Site**

**Age 4 and Age 6 Interviews**

| | Age 4 Interview | | Age 6 Interview | |
|---|---|---|---|---|
| | **N** | **M (SD)** | **N** | **M (SD)** |
| *Total* | 932 | 5.12 (4.32) | 1091 | 2.36 (3.35) |
| *Race* | | | | |
| White | 268 | 4.84 (4.32) | 292 | 2.26 (3.18) |
| Black | 485 | 5.23 (4.43) | 590 | 2.30 (3.08) |
| Hispanic | 65 | 4.13 (3.60) | 76 | 3.17 (5.37) |
| Multiracial | 98 | 5.65 (4.28) | 110 | 2.52 (3.50) |
| Other | 15 | 7.40 (4.77) | 13 | 1.38 (1.61) |
| *Study Site* | | | | |
| EA | 184 | 6.01 (4.21) | 242 | 2.01 (3.03) |
| MW | 99 | 5.56 (4.43) | 137 | 2.34 (3.03) |
| SO | 206 | 3.31 (3.80) | 208 | 2.29 (2.87) |
| SW | 278 | 4.99 (4.24) | 284 | 2.52 (4.00) |
| NW | 165 | 6.59 (4.39) | 220 | 2.63 (3.35) |

*Source.* Age 4: Based on data received at the LONGSCAN Coordinating Center by 7/8/97.
Age 6: Based on data received at the LONGSCAN Coordinating Center by 6/30/00

**Table 2. Internal Consistency Reliability (Cronbach's Alpha) of the PRESS by Race and Study Site**

**Age 4 and Age 6 Interviews**

| | **Age 4** | **Age 6** |
|---|---|---|
| *Total* | .82 | .85 |
| *Race* | | |
| White | .83 | .83 |
| Black | .82 | .82 |
| Hispanic | .78 | .94 |
| Multiracial | .79 | .85 |
| Other | .81 | .53 |
| *Study Site* | | |
| EA | .78 | .84 |
| MW | .81 | .81 |
| SO | .85 | .78 |
| SW | .82 | .90 |
| NW | .78 | .83 |

*Source.* Age 4: Based on data received at the LONGSCAN Coordinating Center by 7/8/97
Age 6: Based on data received at the LONGSCAN Coordinating Center by 6/30/00.

# Separation from Caregiver

LONGSCAN 1991

## Description of Measure

*Purpose*

To obtain information about the child's separation(s) from the primary maternal caregiver during the first years of life.

*Conceptual Organization*

The instrument includes eight items. The first four elicit information about separations of one week or more during the child's first year of life. Werner and Smith (1982) define extended separation between primary maternal caregiver and child as those lasting one week or longer. If such separations did occur, the respondent is asked to supply information regarding how many separations, the total length of separation (in weeks), and the reason for separation. The second four questions ask for the same information about separations of one week or more after the first year of life.

*Item Origin/Selection Process*

Both number and length of separations were included to provide detailed information on separation history. Reason for the separations was obtained to distinguish between reasons related to parenting problems versus other reasons, such as illness.

*Materials*

Non-copyrighted form is included in this manual.

*Time Required*

Less than 5 minutes

*Administration Method*

Interviewer-administered

## Training

Minimal

**Scoring**

*Score Types*

Each item is used separately.

Items 2 and 6 ask for the number of separations in the first year of the subject child's life and after the first year, respectively. Items 3 and 7 ask for the duration of the separations (in number of weeks) in the first year, respectively. and after the first year. Items 2 and 6 may be summed for a measure of the total number of separations in the subject child's lifetime. Items 3 and 7 may be summed for a total number of weeks of separation in subject child's lifetime.

*Score Interpretation*

The more separations and the greater the length of separations, the greater likelihood of psychological distress, attachment problems, maltreatment, and problem behavior.

**LONGSCAN Use**

*Data Points*

Pre-Age 4: NW and MW sites only

Age 4: All sites

*Respondent*

Primary maternal caregiver

*Mnemonic and Version*

SEPA, SEPB. In Version A it was only possible to code one reason for separation. However, soon after the SO site began administering the Age 4 Interview it became apparent that respondents had more than one reason for separation. Thus, the Separation form was updated (Version B) to offer the option of coding two reasons for separation.

*Rationale*

Separation from caregiver during early childhood has been shown to lead to

psychological distress (Field, 1986) and is an indicator of family chaos. Furthermore, experiencing fewer extended separations from primary caregivers has been shown to be associated with resilient adaptation in highly stressed children (Wyman, Cowen, Work, & Parker, 1991). Because the children in the LONGSCAN population are at high risk for maltreatment, they may also be at high risk for separation from caregivers. The risks associated with separation from caregivers may be somewhat circular as evidenced by research showing that living apart from related adults, in turn, becomes a risk factor for maltreatment (Flanagan, Coll, Andreozzi, & Riggs, 1995).

## Results

### *Descriptive Statistics*

Table 1 provides the mean number of separations and weeks of separation for LONGSCAN subject children as reported by the maternal caregivers at the time of the Age 4 interview. Means are provided by race and study site. Black and Hispanic children had the fewest number of separations, and White children had the most. Multiracial children and children of other races, who also experienced a relatively high number of separations, experienced the highest number of weeks of separation.

**Table 1 about here**

At the EA, SO, and MW sites, where some, but not all, children had been reported for maltreatment, there were generally fewer separations, and fewer weeks of separation as compared to the other two sites where 100% of the subjects have been reported for maltreatment. Children at the EA study site were the least likely to have been separated from their caregiver(s), and in the cases in which they were separated, they had the shortest lengths of separation.

### *Validity*

As an initial assessment of the criterion validity of this measure at Age 4, a chi-square analysis was conducted using the data from the SO and MW sites (N = 339) to examine the relationship between separation status (during first year of life and later) and maltreatment. No significant differences in separation status by maltreatment were noted for the first year of life. However, after the first year, reports of maltreatment were significantly higher (45%) among the

group with reported separations than in the group with no reported separations (27%) ($x^2$ (df, N = 339) = p < 0.002).

**References and Bibliography**

Field, T. (1986). Models for reactive and chronic depression in infancy. New Directions for Child Development, 34, 47-60

Flanagan, P., Coll, C. G., Andreozzi, L., & Riggs, S. (1995). Predicting maltreatment of children of teenage mothers. Archives of Pediatrics & Adolescent Medicine, 149, 451-455.

Werner, E. E., & Smith, R. S. (1982). Vulnerable but invincible: A study of resilient children. New York: McGraw-Hill.

Wyman, P. A., Cowen, E. L., Work, W. C., & Parker, G. R. (1991). Developmental and family milieu correlates of resilience in urban children who have experienced major life-stress. American Journal of Community Psychology, 19, 405-426.

**Table 1. Mean Number of Separations and Weeks of Separation by Race and Study Site**

**Age 4 Interview**

| | N | Number of Separations M (SD) | Weeks of Separation M (SD) |
|---|---|---|---|
| *Total* | 1012 | 1.17 (3.95) | 11.47 (28.0) |
| *Race* | | | |
| White | 290 | 1.78 (5.59) | 12.82 (27.25) |
| Black | 536 | 0.88 (2.88) | 7.11 (21.79) |
| Hispanic | 58 | 0.57 (0.82) | 14.67 (30.73) |
| Multiracial | 104 | 1.27 (4.42) | 22.78 (40.12) |
| Other | 23 | 1.61 (1.80) | 37.57 (53.86) |
| *Study Site* | | | |
| EA | 235 | 0.71 (2.95) | 1.21 (5.44) |
| MW | 122 | 0.89 (4.22) | 5.26 (18.93) |
| SO | 217 | 1.07 (2.58) | 4.83 (14.33) |
| SW | 188 | 1.59 (4.90) | 21.59 (31.86) |
| NW | 250 | 1.54 (4.71) | 22.35 (41.10) |

*Source*. Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

## Separation from Caregiver
## (SEPA, SEPB)

1. Were you (or CHILD'S primary caregiver) separated from (CHILD) for more than a week during his/her first year of life?

   0 NO **------> GO TO QUESTION 5**

   1 YES

2. How many <u>times</u> were you (or primary caregiver) separated from (CHILD) for more than a week during that year?

   ___ ___ # of times (2 DIGITS)

3. Counting all times separated for more than a week, how many total weeks were you (or primary caregiver) separated from (CHILD)?

   ___ ___ total number of weeks (2 DIGITS)

4. What were the reasons for your separation?

   _____

   _____ (DO NOT KEY)

   ___ ___ REASON CODE #1

   ___ ___ REASON CODE #2

5. <u>After</u> the first year of life, was (CHILD) ever separated from you (or primary caregiver) for a period of one week or more?

   0 NO **------> GO TO NEXT PAGE**

   1 YES

6. How many <u>times</u> were you (or primary caregiver) separated from (CHILD) for more than a week since (CHILD)'s first year?

   ___ ___ # of times (2 DIGIT)

7. Counting all times separated for more than a week, how many total weeks were you (or primary caregiver) separated from (CHILD)?

___ ___ total number of weeks (2 DIGITS)

8. What were the reasons for your separation?

_____

_____ (DO NOT KEY)

___ ___ REASON CODE #1

___ ___ REASON CODE #2

# Service Utilization

LONGSCAN 1991, 1993

## Description of Measure

*Purpose*

To assess the type and extent of services needed and utilized by the child for emotional, behavioral, school, and medical problems and by the child's primary caregiver for emotional and psychological problems.

*Conceptual Organization*

These instruments are designed to assess the reason(s) for seeking service, the type of service provider seen, number of visits, and the degree of satisfaction with services for both a child and the child's mother or primary caregiver.

At the Pre-Age 4/Age 4 interview a single form was developed to assess both child and adult services. For children, the instrument asks about services that have ever been sought. Child service information includes help needed and help sought for children's behavioral, emotional, or school problems, and medications the child is taking for these problems. For caregivers, only services sought and received in the last year are assessed. Adult services include help needed and sought for a personal or emotional problem, and medications taken in the past year. For the caregiver, the instrument also asks about hospitalization for personal or emotional problems, and treatment programs for substance abuse.

At Age 6 the instrument is divided into three forms. The first is caregiver focused and replicates the information gathered at the previous interview: The form asks for information concerning services sought and received, hospitalization for personal and emotional problems, and stays in residential programs for substance abuse in the past year. The second form is child focused and asks about help needed and sought for the child in the past year (rather than ever). Questions regarding well-child visits, medical problems, medications for any kind of problem, and hospitalizations for any kind of problem are also included. (The form used at Age 4 does not gather information on children's medical problems.) The third form is a Supplemental Service form (See Supplemental Services) designed to assess the use of other types of social and educational services.

At Age 8 the three forms used at Age 6 are combined and streamlined to create one instrument assessing the household's use of a variety of social and mental health services.

*Item Origin/Selection Process*

The initial focus was on identifying any mental health services for the child or family that might have resulted from a child maltreatment referral. This focus was expanded to examine other services that might decrease the incidence or ameliorate the effects of family problems including child maltreatment.

*Materials*

Non-copyrighted LONGSCAN forms, included in this manual.

*Time Required*

5-15 minutes, depending on extent of services utilization.

*Administration Method*

Interviewer-administered

**Training**

Minimal

**Scoring**

*Score Types*

Items are scored individually. Interviewers are provided with instructions for coding the "reason for seeking help" and "medications" items.

"Reasons for seeking help" for child are categorized, with 2-digit codes, under the broader headings of Somatic/Physical Problems, Developmental/Intellectual, Depression/Low Self Esteem and Self-Harm, Anxiety and Fearfulness, Interpersonal Problems/Antisocial Behavior, Activity or Attention Problem/Impulsiveness, Delusional/Thought Disorder, Sexual Problems, Problems in Adjustment to Life Changes, Psychological Trauma/Suspected Maltreatment, and Other. Medication code categories describe the problem(s) for which the

medications are prescribed. These categories were based on those used by the Physician's Desk Reference (1993).

**LONGSCAN Use**

*Data Points*

Pre-Age 4: NW sites only

Ages 4, 6, 8, 12, & 14, Annual contacts: all sites

*Respondent*

Primary caregiver

*Mnemonic and Version*

Pre-Age 4 and Age 4:

TXUA. Allows only one response code to be entered for questions 8, 10, 18, and 22.

TXUB. This modification allows two response codes to be entered for items 8 and 18, and three response codes to be entered for 10 and 22.

Age 6:

ASUA for caregivers

CSUA for child. The CSUA expands the data collected on the child to include physical as well as mental health services.

SER for supplemental services, such as employment assistance or legal aid.

Age 8: SUA

Ages 12 & 14 and Annual Contact at 13: SRUB

Annual Contacts at ages 1, 3, 5 and 7: ASUA & CSUA

Annual Contacts at ages 9 and 11: ASUA & CSUA

**Results**

*Descriptive Statistics at Age 4*

Need and receipt of services for child. Table 1 provides information on child mental health services needed and used by race and study site as reported at the Age 4 interview. These data reflect perceived need and utilization of services related to emotional, behavioral, or school

problems in the past year only. Approximately one quarter of the children received professional help for problems. A difference by race was found in both perceived need and service receipt. Forty-one percent of the White mothers/caregivers felt that their child needed services and 89% of these children actually received services. Conversely only 20% of Black mothers/caregivers perceived the need for service, and 79% of these families actually received services. Among the Multiracial families, just over 40% perceived a need for services and 73% actually received services.

**Table 1 about here**

Comparisons by site revealed, the EA sample (98% Black) had the lowest perceived need and use of services. Not surprisingly, the SW and NW samples (both 100% reported for maltreatment) had the highest perceived need and use of services for the children. Three-quarters of all children who had received services at the time of the Age 4 interview were situated at either the SW or NW sites. This finding may also reflect the relatively greater proportion of foster parents in these two samples. Foster parents may be better informed about the availability of services and also have a higher perceived need for services. Additionally, CPS involvement may provide a pathway into mental health and related services.

Reason for seeking service for child and type of provider used. Of the 288 children who had received services by the Age 4 interview, 52% saw a mental health professional, 30% saw a teacher, 29% saw a speech and language specialist, 27% saw a health care professional, and 18% saw a social worker. These percentages may be somewhat inflated because children may have seen more than one provider. The most frequently reported reasons for seeking help for a child were "speech problem" (n = 58); hyperactivity/attention deficit (n = 32); physical aggression (n = 26); fears/anxiety (n = 25); delayed development (n = 23); and suspected sexual abuse (n = 19).

Need and receipt of services for caregiver. Table 2 provides information on the mother or primary caregiver's use of mental health services, based on the responses at the Age 4 interview by race of the primary caregiver and study site. Paralleling the child data, perceived service need and receipt were highest in the White, Multiracial, and "Other" race groups. Also, like the child data, service receipt percentages were slightly lower than the percentages indicating need.

**Table 2 about here**

In the case of the Black and Hispanic caregivers, and caregivers from SW, service receipt was slightly higher than expressed need, indicating that some caregivers involuntarily received a "service." This may have been true for other groups as well, but it is impossible to determine because this question was not asked directly. Overall, Whites had the highest rates of ever experiencing in-patient psychiatric care, while Blacks had the highest rates of residential treatment for substance abuse problems.

Reason for caregiver seeking service and type of provider used. Of the 280 maternal caregivers who sought help because of a personal or emotional problem in the year preceding the Age 4 interview, 56% saw a mental health professional, 53% used a self-help group, 22% saw a social worker, 17% saw a substance abuse counselor, and 13% saw a health care professional. Other providers seen less frequently included clergy, natural healers, lawyers, or probation officers. Some caregivers saw more than one provider. The most common reasons for caregivers seeking help were drug abuse/dependence (n = 47); parenting concerns (n = 37); depression (n = 36); alcohol abuse/dependence (n = 30); anxiety/stress (n = 26); and marital or relationship problem (n = 25). Eighteen caregivers reported seeking services because they were mandated to do so by some authority.

*Descriptive Statistics at Age 6*

Need and receipt of services for child. Table 3 provides information on child mental health services need and use by race and study site at the Age 6 interview. These data reflect perceived need and utilization of services related to an emotional, behavioral, or school problem in the year preceding the Age 6 interview only. Approximately one-third of the children received professional help for problems, reflecting an 8% increase in services receipt relative to Age 4. Both service need and service receipt were highest for Black children. About 50% of the White mothers/caregivers felt that their child needed services and 87% of this number received services. Only 29% of Black mothers/caregivers perceived the need for service, and 77% of these received services. The differential rate of service receipt compared to perceived service need observed between White and Black caregivers was also noted at Age 4. Similarly, as observed at Age 4, the EA sample had the lowest perceived need and use of services at Age 6. The SW and

NW samples (both 100% reported for maltreatment) continued to have the highest perceived need and use of services for the children.

**Table 3 about here**

Reason for seeking service for child and type of provider used. Of the 374 children who had seen someone for help because of a behavioral, emotional, or school problem by the Age 6 interview, 61% saw a teacher or principal, 35% saw a mental health professional, 27% saw a school counselor, 25% saw a health care professional, 19% saw a social worker, 19% saw a developmental evaluation specialist, and 17% saw a speech and language specialist. Children may have seen more than one provider.

Need and receipt of services for caregiver. Table 4 provides information on the mother or primary caregiver's use of mental health services, based on the responses at the Age 6 interview by race of the primary caregiver and study site. The need for and receipt of services among caregivers was slightly lower than that reported at Age 4. Perceived service need was lowest among Black caregivers (18%). As observed in the child data, Black caregivers were less likely than White caregivers to get the services they felt they needed (64% and 75%, respectively). Only half of the Hispanic caregivers who said they needed services actually received services.

**Table 4 about here**

Reason for caregiver seeking service and type of provider used. Of the 202 maternal caregivers who sought help because of a personal or emotional problem in the year preceding the Age 6 interview, 55% used a self-help group, 45% saw a mental health professional, 22% saw a social worker, 10% saw a substance abuse counselor, and 12% saw a health care professional. Other providers seen less frequently included clergy, natural healers, lawyers, or probation officers. Some caregivers saw more than one provider.

**References and Bibliography**

Physicians Desk Reference (47th ed.). (1993). Montvale, NJ: Medical Economics Data Production.

**Table 1. Child Mental Health Services Use by Race and Study Site**

**Age 4 Interview**

| | N | Caregiver felt child ever needed MH service n (%) | Child ever received MH Service n (%) | # of Visits M (SD) |
|---|---|---|---|---|
| *Total* | 1147 | 337 (29.4) | 288 (25.1) | 48.5 (39.5) |
| *Race* | | | | |
| White | 398 | 163 (41.0) | 145 (36.4) | 51.5 (40.4) |
| Black | 584 | 116 (19.9) | 91 (15.8) | 44.0 (41.4) |
| Hispanic | 81 | 24 (29.6) | 22 (27.2) | 47.3 (34.3) |
| Multiracial | 37 | 15 (40.5) | 11 (29.7) | 34.0 (1.72) |
| Other | 44 | 19 (43.2) | 18 (40.9) | 54.2 (43.2) |
| *Study Site* | | | | |
| EA | 236 | 30 (12.7) | 18 (7.6) | 23.3 (34.2) |
| MW | 122 | 25 (20.5) | 23 (18.9) | 35.1 (44.8) |
| SO | 221 | 46 (20.8) | 31 (14.0) | 35.2 (37.0) |
| SW | 317 | 133 (41.8) | 122 (38.4) | 44.8 (36.6) |
| NW | 250 | 103 (41.2) | 94 (37.6) | 64.9 (39.9) |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 2. Caregivers' Use of Health Services by Race and Study Site**

**Age 4 Interview**

| | N | Considered seeking MH service n (%) | Caregiver received MH Service n (%) | Number of Visits M (SD) | Ever hospitalized for MH problem (%) | Ever in substance abuse residential care (%) |
|---|---|---|---|---|---|---|
| *Total* | 1148 | 316 (27.5) | 280 (24.4) | 60.2 (36.9) | 9.9 | 13.5 |
| *Race* | | | | | | |
| White | 398 | 162 (40.80 | 127 (32.0) | 59.6 (36.5) | 14.0 | 12.5 |
| Black | 584 | 106 (18.2) | 108 (18.5) | 60.7 (40.4) | 8.4 | 15.3 |
| Hispanic | 81 | 17 (21.0) | 18 (22.2) | 73.2 (32.3) | 6.8 | 11.0 |
| Multiracial | 37 | 14 (37.8) | 12 (32.4) | 58.0 (37.3) | 2.9 | 14.7 |
| Other | 44 | 16 (36.4) | 16 (36.4) | 49.6 (31.1) | 4.9 | 7.3 |
| *Study Site* | | | | | | |
| EA | 236 | 32 (13.6) | 32 (13.6) | 42.3 (41.1) | 7.4 | 10.1 |
| MW | 122 | 33 (27.3) | 29 (24.0) | 44.8 (34.9) | 12.4 | 9.1 |
| SO | 221 | 43 (19.5) | 26 (11.8) | 34.3 (36.6) | 16.7 | 9.8 |
| SW | 317 | 72 (22.7) | 82 (25.9) | 78.8 (30.4) | 7.9 | 14.9 |
| NW | 250 | 135 (54.0) | 112 (44.8) | 59.8 (35.7) | 11.6 | 17.3 |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Table 3. Child Mental Health Services Use in Past Year by Race and Study Site**

**Age 6 Interview**

| | N | Caregiver felt child needed MH service n (%) | Child received MH Service n (%) | # of Visits M (SD) |
|---|---|---|---|---|
| *Total* | 1169 | 456 (39.1) | 374 (32.0) | 25.6 (30.3) |
| *Race* | | | | |
| White | 311 | 163 (52.4) | 142 (45.7) | 24.8 (29.8) |
| Black | 620 | 181 (29.2) | 140 (22.6) | 25.3 (32.7) |
| Hispanic | 85 | 40 (47.1) | 29 (34.1) | 22.1 (23.0) |
| Multiracial | 133 | 63 (47.4) | 55 (41.4) | 30.0 (30.7) |
| Other | 20 | 9 (45.0) | 8 (40.0) | 22.5 (29.0) |
| *Study Site** | | | | |
| EA | 251 | 61 (24.3) | 36 (14.3) | 25.3 (37.1) |
| MW | 166 | 51 (30.7) | 42 (25.3) | 27.7 (32.8) |
| SO | 219 | 77 (35.2) | 68 (30.9) | 11.4 (13.3) |
| SW | 299 | 154 (51.5) | 131 (43.8) | 28.9 (31.9) |
| NW | 234 | 113 (48.3) | 97 (41.6) | 26.8 (30.2) |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

*MW is not included because data collection was insufficiently complete.

**Table 4. Caregivers' Use of Health Services In Past Year by Race and Study Site**

**Age 6 Interview**

| | N | Caregiver considered seeking MH service n (%) | Caregiver received MH Service n (%) | Number of Visits M (SD) | Hospitalized for MH problem n (%) | Substance abuse residential care n (%) |
|---|---|---|---|---|---|---|
| *Total* | 1160 | 292 (25.2) | 202 (17.4) | 52.9 (38.6) | 17 (1.5) | 22 (1.9) |
| *Race* | | | | | | |
| White | 388 | 137 (35.3) | 102 (26.3) | 49.9 (36.8) | 7 (1.8) | 3 (0.8) |
| Black | 617 | 111 (18.0) | 73 (11.8) | 56.6 (41.4) | 8 (1.3) | 13 (2.1) |
| Hispanic | 87 | 19 (21.8) | 10 (11.5) | 52.5 (48.8) | 1 (1.2) | 3 (3.5) |
| Multi-racial | 33 | 12 (36.4) | 7 (21.2) | 55.5 (61.5) | 0 (0.0) | 2 (6.1) |
| Other | 29 | 13 (44.8) | 10 (34.5) | 59.3 (46.9) | 1 (3.5) | 1 (3.5) |
| *Study Site** | | | | | | |
| EA | 245 | 42 (17.1) | 25 (10.2) | 59.5 (44.4) | 4 (1.6) | 10 (4.1) |
| MW | 166 | 42 (25.3) | 29 (17.5) | 52.2 (36.9) | 2 (1.2) | 6 (3.6) |
| SO | 218 | 24 (11.0) | 17 (7.8) | 24.6 (25.4) | 5 (2.3) | 1 (0.5) |
| SW | 298 | 84 (28.2) | 62 (20.8) | 61.2 (39.9) | 3 (1.0) | 3 (1.0) |
| NW | 233 | 100 (42.9) | 69 (29.6) | 50.1 (37.3) | 3 (1.3) | 2 (0.9) |

*Source.* Based on data received at the LONGSCAN Coordinating Center by 7/8/97.

**Child and Adult Mental Health Service Utilization**

**(Age 4: TXUA)**

Here are some questions about any professional or outside help you may have gotten for you or your child.

Have you ever *felt you needed* to take (CHILD'S NAME) to anyone for help with any behavioral, emotional, or school problems?

0 NO

1 YES

Have you ever taken your child to see anyone for help?

0 NO (SKIP TO Q. 10)

1 YES

Who did you see for help? (DO NOT READ LIST, BUT BE SURE RESPONDENT GIVES TYPE OF PROFESSIONAL, AS BELOW)

_____

_____

_____

_____

INTERVIEWER/KEYER: ENTER 0 FOR NO, 1 FOR YES

____ a. Mental Health Professional

____ b. Health Care Professional

____ c. Social Services Worker

____ d. School Counselor

____ e. Principal, Teacher, or Day Care Provider

____ f. Speech & Language Specialist

____ g. Developmental Evaluation Specialist

____ h. Substance Abuse Counselor

____ i. Lawyer or Probation Officer

____ j. Clergy or Religious Counselor

____ k. Natural Healer or Advisor

____ l. Other _____

4. CIRCLE ONE: 1 ONE PROVIDER (GO TO Q. 7)

2 MORE THAN ONE PROVIDER (GO TO NEXT QUESTION)

5. Approximately how many visits overall did your child have with these care providers?

__ __ (2 DIGITS, >99=99)

6. Which *type* of care provider did you take your child to see most often?

_____ (WRITE RESPONSE; DO NOT KEY)

___ (CODE FROM PROVIDER LIST; LOWER CASE LETTER)

7. Approximately how many times did your child see this person?

__ __ (2 DIGITS, >99=99)

7a. How many times within the last six months?

__ __ = # OF VISITS TO THIS PROVIDER IN LAST 6 MO. (2 DIGITS)

8. What was the main reason you sought help for (CHILD'S NAME)?

_____

_____

_____

_____(RECORD RESPONSE; DO NOT KEY)

__ __ (REASON CODE)

9. How satisfied were you with the help that your child received from this person?

1 VERY SATISFIED
2 SOMEWHAT SATISFIED
3 SOMEWHAT DISSATISFIED
4 VERY DISSATISFIED
-- DK; NO RESPONSE

10. Is (CHILD) currently taking any medication to help control an emotional or behavioral problem?

0 NO
1 YES-----> What medication? _____

10a.___ (MEDICATION CODE)

11. In the past year, did you *consider* seeking outside help for any personal or emotional problem?

0 NO
1 YES

12. In the past year, did you actually see someone for help or participate in a self-help group (like AA, Parents Anonymous, etc.)?

0 NO (END SERVICE UTILIZATION, GO TO NEXT FORM)

1 YES

Who did you see for help? (DO NOT READ LIST, BUT BE SURE RESPONDENT GIVES TYPE OF PROFESSIONAL, AS BELOW)

_____

_____

_____

_____

INTERVIEWER/KEYER: ENTER 0 FOR NO, 1 FOR YES

____ a. Mental Health Professional

____ b. Health Care Professional

____ c. Social Services Worker

____ d. Work Counselor

____ e. Substance Abuse Counselor

____ f. Lawyer or Probation Officer

____ g. Clergy or Religious Counselor

____ h. Natural Healer or Advisor

____ i. Self-help group (e.g., Alcoholics Anonymous, Parents Anonymous, Gambler's Anonymous)

____ j. Other _____

14. CIRCLE ONE: 1 ONE PROVIDER (GO TO Q. 17)

2 MORE THAN ONE PROVIDER (GO TO NEXT QUESTION)

15. Approximately how many times, overall, did you see any of these people and/or participate in any groups, in the past year?

__ __ (2 DIGITS, > 99 = 99)

16. Who did you see most often? (TYPE OF HELPER/PROFESSIONAL)

_____

_____(WRITE RESPONSE; DO NOT KEY)

___ (CODE FROM PROVIDER LIST; LOWER CASE LETTER)

Approximately how many times did you see this person (OR participate in this group)?

__ __ (2 DIGITS; > 99 = 99)

17a. How many times within the last six months?

__ __ ( 2 DIGITS; > 99 = 99)

18. If you don't mind my asking, what was the main reason you sought help?

_____

_____

_____

(RECORD RESPONSE; DO NOT KEY)

__ __ (REASON CODE)

19. How satisfied were you with the help you received from this person (OR group)?

1 VERY SATISFIED

2 SOMEWHAT SATISFIED

3 SOMEWHAT DISSATISFIED

4 VERY DISSATISFIED

-- DK; NR

20. Have you ever been hospitalized for emotional or psychological problems?

0 NO ----> GO TO Q. 21

1 YES----> How many times?

20a. __ __ (# OF DIFFERENT HOSPITALIZATIONS)

21. Have you ever entered a residential program for the treatment of substance abuse?

0 NO

1 YES

22. Do you currently take any medications to help control; nervousness, depression, or some other emotional condition?

0 NO

1 YES----->What medication? _____

**Child and Adult Mental Health Service Utilization**

**(Age 4: TXUB)**

Here are some questions about any professional or outside help you may have gotten for you or your child.

Have you ever *felt you needed* to take (CHILD'S NAME) to anyone for help with any behavioral, emotional, or school problems?

0 NO

1 YES

Have you ever taken your child to see anyone for help?

0 NO (SKIP TO Q. 10)

1 YES

Who did you see for help? (DO NOT READ LIST, BUT BE SURE RESPONDENT GIVES TYPE OF PROFESSIONAL, AS BELOW)

_____

_____

INTERVIEWER/KEYER: ENTER 0 FOR NO, 1 FOR YES

____ a. Mental Health Professional

____ b. Health Care Professional

____ c. Social Services Worker

____ d. School Counselor

____ e. Principal, Teacher, or Day Care Provider

____ f. Speech & Language Specialist

____ g. Developmental Evaluation Specialist

____ h. Substance Abuse Counselor

____ i. Lawyer or Probation Officer

____ j. Clergy or Religious Counselor

____ k. Natural Healer or Advisor

____ l. Other _____

4. CIRCLE ONE: 1 ONE PROVIDER (GO TO Q. 7)

2 MORE THAN ONE PROVIDER (GO TO NEXT QUESTION)

5. Approximately how many visits overall did your child have with these care providers?

__ __ (2 DIGITS, >99=99)

6. Which *type* of care provider did you take your child to see most often?

_____ (WRITE RESPONSE; DO NOT KEY)

___ (CODE FROM PROVIDER LIST; LOWER CASE LETTER)

7. Approximately how many times did your child see this person?

__ __ (2 DIGITS, >99=99)

7a. How many times within the last six months?

__ __ = # OF VISITS TO THIS PROVIDER IN LAST 6 MO. (2 DIGITS)

8. What was the main reason you sought help for (CHILD'S NAME)?

_____

_____(RECORD RESPONSE; DO NOT KEY)

____ (REASON CODE)

9. How satisfied were you with the help that your child received from this person?

1 VERY SATISFIED

2 SOMEWHAT SATISFIED

3 SOMEWHAT DISSATISFIED

4 VERY DISSATISFIED

-- DK; NO RESPONSE

10. Is (CHILD) currently taking any medication to help control an emotional or behavioral problem?

0 NO

1 YES-----> What medication? _____

10a.___ (MEDICATION CODE)

11. In the past year, did you *consider* seeking outside help for any personal or emotional problem?

0 NO

1 YES

12. In the past year, did you actually see someone for help or participate in a self-help group (like AA, Parents Anonymous, etc.)?

0 NO (END SERVICE UTILIZATION, GO TO NEXT FORM)

1 YES

Who did you see for help? (DO NOT READ LIST, BUT BE SURE RESPONDENT GIVES TYPE OF PROFESSIONAL, AS BELOW)

_____

_____

INTERVIEWER/KEYER: ENTER 0 FOR NO, 1 FOR YES

____ a. Mental Health Professional
____ b. Health Care Professional
____ c. Social Services Worker
____ d. Work Counselor
____ e. Substance Abuse Counselor
____ f. Lawyer or Probation Officer
____ g. Clergy or Religious Counselor
____ h. Natural Healer or Advisor
____ i. Self-help group (e.g., Alcoholics Anonymous, Parents Anonymous, Gambler's Anonymous)
____ j. Other _____

14. CIRCLE ONE: 1 ONE PROVIDER (GO TO Q. 17)
2 MORE THAN ONE PROVIDER (GO TO NEXT QUESTION)

15. Approximately how many times, overall, did you see any of these people and/or participate in any groups, in the past year?

__ __ (2 DIGITS, > 99 = 99)

16. Who did you see most often? (TYPE OF HELPER/PROFESSIONAL)

_____ (WRITE RESPONSE; DO NOT KEY)

___ (CODE FROM PROVIDER LIST; LOWER CASE LETTER)

17. Approximately how many times did you see this person (OR participate in this group)?

__ __ (2 DIGITS; > 99 = 99)

17a. How many times within the last six months?

__ __ ( 2 DIGITS; > 99 = 99)

18. If you don't mind my asking, what was the main reason you sought help?

_____ (RECORD RESPONSE; DO NOT KEY)

_____ (REASON CODE)

19. How satisfied were you with the help you received from this person (OR group)?

1 VERY SATISFIED
2 SOMEWHAT SATISFIED
3 SOMEWHAT DISSATISFIED
4 VERY DISSATISFIED
-- DK; NR

20. Have you ever been hospitalized for emotional or psychological problems?

0 NO ----> GO TO Q. 21
2 YES----> How many times?

20a. __ __ (# OF DIFFERENT HOSPITALIZATIONS)

21. Have you ever entered a residential program for the treatment of substance abuse?

0 NO

1 YES

22. Do you currently take any medications to help control; nervousness, depression, or some other emotional condition?

0 NO

1 YES----->What medication? _____

22a.___ (MEDICATION CODE)

**Adult Service Utilization**

**(Age 6: ASUA)**

1a. IN THE PAST YEAR, DID YOU SEE SOMEONE FOR HELP, OR PARTICIPATE IN A SELF-HELP GROUP (LIKE AA, PARENTS ANONYMOUS, ETC.)?

0 No [*Go to Q. 2* ]

1 Yes ------> FOR WHAT KIND OF PROBLEM(S)? [*Record all problems, then skip to Q. 3*.]

_____

__

_____

__

Codes: b.__ __ c.__ __ d.__ __ *[For office use only]*

2a. IN THE PAST YEAR, DID YOU *CONSIDER* SEEKING OUTSIDE HELP FOR ANY PERSONAL OR EMOTIONAL PROBLEM?

0 No--------><u>*Skip to Q. 9*</u>

1 Yes-------> WHAT KIND OF PROBLEM(S)?_____

_____

Codes: b.__ __ c.__ __ d.__ __ *[For office use only ]*

3. WHO DID YOU SEE OR TALK TO FOR HELP?

AGAIN, I HAVE A LIST OF DIFFERENT KINDS OF PEOPLE WHO ARE SOMETIMES CONSULTED FOR HELP. I'D LIKE TO READ THROUGH THE LIST AND HAVE YOU TELL ME IF YOU HAVE TALKED, IN THE LAST YEAR, WITH ANY OF THESE TYPES OF PEOPLE ABOUT SOME PROBLEM.

[*Check each provider consulted. For each helper named, be sure "problem" has been recorded in Q.1a*.]

____ a. Mental Health Professional

____ b. Health Care Professional

____ c. Social Services Worker

____ d. Work Counselor

____ e. Substance Abuse Counselor

____ f. Lawyer or Probation Officer

____ g. Preacher, Minister or Religious Counselor

____ h. Natural Healer or Advisor

____ i. Self-Help Group (e.g. Alcoholic Anonymous, Gambler's Anonymous, Parents Anonymous

____ j. Other _____

*4. Interviewer: How many providers were named in Q. 3?*

*1 One (Go to Q 7 )*

*2 >1 Provider (Go To Next Question)*

5. APPROXIMATELY HOW MANY VISITS <u>OVERALL</u> DID YOU HAVE WITH [all care providers named in Q. 3]?

__ __ Visits with <u>all</u> care providers

6. WHO DID YOU SEE MOST OFTEN? _____

_____ [*CODE appropriate lower case letter from Provider List, Q. 3*]

7. APPROXIMATELY HOW MANY TIMES DID YOU SEE THIS PERSON?

__ __ Visits with <u>care provider seen most often</u>/<u>only care provider</u>

8. HOW SATISFIED WERE YOU WITH THE SERVICES YOU RECEIVED FROM THIS PERSON?

1 Very satisfied

2 Somewhat satisfied

3 Somewhat dissatisfied

4 Very dissatisfied

-- DK; NO RESPONSE

9a. DURING THE PAST YEAR, HAVE YOU AT ANY TIME BEEN HOSPITALIZED FOR EMOTIONAL OR PSYCHOLOGICAL PROBLEMS?

0 No

1 Yes----> b. HOW MANY TIMES? __ __ # of different hospitalizations

c. FOR HOW MANY DAYS TOTAL WERE YOU IN HOSPITAL?

— —

10. DURING THE PAST YEAR, HAVE YOU AT ANY TIME ENTERED A RESIDENTIAL PROGRAM FOR THE TREATMENT OF ALCOHOL OR DRUG ABUSE?

0 No

1 Yes

11. ARE YOU CURRENTLY TAKING ANY MEDICATIONS ON A REGULAR BASIS?

0 No

1 Yes-----> WHAT MEDICATIONS? [*Record all medications mentioned by respondent.* ]

_____

_____

Medication Codes: b. __ __ c.__ __ d.__ __ [*For office use only* ]

**Child Service Utilization**

**(Age 6: CSUA)**

NOW I HAVE A FEW QUESTIONS ABOUT ANY PROFESSIONAL OR OUTSIDE HELP YOU MAY HAVE GOTTEN FOR _____ IN THE PAST YEAR.

1a. DURING THE PAST YEAR, HAVE YOU CONSULTED WITH ANYONE ABOUT A BEHAVIORAL, EMOTIONAL, OR SCHOOL PROBLEM RELATED TO _____?

[*Do not include medical problems here*]

0 No [*Go To Q. 2a)*

1 Yes-------> FOR WHAT KIND OF PROBLEM(S)? [*Record all problems, then skip to Q.3* ]

_____

_____

Codes: b.__ __ c.__ __ d.__ __ [*For Office Use Only* ]

2a. IN THE PAST YEAR, HAVE YOU *FELT YOU NEEDED* HELP WITH ANY BEHAVIORAL, EMOTIONAL, OR SCHOOL PROBLEMS THAT _____ WAS HAVING?

0 No-[*Skip To Q. 9* ]

1 Yes-------> WHAT KIND OF PROBLEM(S)? [ *Record problems and skip to Q. 9* ]

_____

Codes: b. __ __ c. __ __ d.__ __ [*For Office Use Only* ]

3. WHO DID YOU SEE OR TALK TO FOR HELP? [ *Record response, then say . . .* ]

I HAVE A LIST OF (OTHER) PEOPLE WHO ARE SOMETIMES ASKED FOR HELP. TELL ME IF YOU HAVE TALKED, IN THE PAST YEAR, WITH ANY OF THESE TYPES OF PEOPLE ABOUT ANY PROBLEM _____ WAS HAVING.

[*Check each provider named. For each Helper named, be sure"problem" has been recorded in 1a.)*

PROVIDER LIST

____ a. Mental Health Professional

____ b. Health Care Professional

____ c. Social Services Worker

____ d. School Counselor

____ e. Principal, Teacher, Day Care Provider

____ f. Speech & Language Specialist

____ g. Developmental Evaluation Specialist

____ h. Substance Abuse Counselor

____ i. Lawyer

____ j. Preacher, Minister, or Religious Counselor

____ k. Natural Healer or Advisor

____ l. Other_____

4. *Interviewer: How many providers were mentioned?*

*1 One provider (Go to Q. 7)*

*2 >1 Provider (Go on to next question)*

5. DURING THE PAST YEAR, APPROXIMATELY HOW MANY TOTAL VISITS DID _____ , YOU, OR OTHER FAMILY MEMBERS HAVE WITH ANYONE [i.*e. all providers named*] ABOUT [ *child's problem* ] ?

__ __ # visits with <u>all</u> care providers

6. DURING THE PAST YEAR, WHO [*of all care providers named*] WAS SEEN MOST OFTEN?

_____

___ [ *Code appropriate lower case letter from Provider List, Q. 3*]

7. DURING THE PAST YEAR, APPROXIMATELY HOW MANY TIMES WAS [*provider seen most often*] SEEN BY YOU, _____, OR OTHER FAMILY MEMBERS?*[for child's problem]*

__ __ # visits with care provider seen most often / only care provider seen

8. HOW SATISFIED WERE YOU WITH THE SERVICES RECEIVED FROM THIS PERSON?

1 Very satisfied
2 Somewhat satisfied
3 Somewhat dissatisfied
4 Very dissatisfied
-- DK; NO RESPONSE

HERE ARE SOME QUESTIONS ABOUT ANY MEDICAL OR HEALTH CARE SERVICES YOU MAY HAVE GOTTEN FOR _____ IN THE PAST YEAR.

9. DO YOU HAVE A REGULAR PLACE WHERE YOU TAKE _____ FOR MEDICAL CARE?

-- DK
0 No
1 Yes

10. DURING THE PAST YEAR HAVE YOU TAKEN _____ FOR A WELL-CHILD VISIT (LIKE A VISIT FOR A CHECK-UP OR IMMUNIZATIONS)?

-- DK
0 No
1 Yes

11a. DURING THE PAST YEAR, HAVE YOU TAKEN YOUR CHILD FOR HELP WITH A MEDICAL PROBLEM?

-- DK

0 No [*Skip to Q. 18* ]

1 Yes -----> WHAT KIND OF PROBLEM(S)?

_____

_____

CODES: b.__ __ c.__ __ d.__ __ *(For office use only. Code up to 3 main problems.)*

12. WHERE DID YOU TAKE YOUR CHILD AND WHO DID YOU SEE (FOR EVERY PROBLEM MENTIONED)? *[Help respondent identify type of professional and then determine the location of*

*service, as below. Check corresponding blank for each provider consulted]*

Provider List

____ a. Physician<-----PRIVATE OFFICE, CLINIC, HMO?----->____h. Nurse or physician's assistant

____ b. Physician<----------PUBLIC CLINIC?---------->____i. Nurse or physician's assistant

____ c. Physician<----------HOSPITAL-BASED?---------->____j. Nurse or physician's assistant

____ d. Physician<----------HOSPITAL E. R.?---------->____k. Nurse or physician's assistant

____ e. Chiropractor

____ f. Natural healer, faith healer, or reader

____ g. Other _____

13. *Interviewer: How many providers were mentioned?*

*1 One provider (Go to Question 16a)*

*2 >1 Provider (Go on to next question)*

14. APPROXIMATELY HOW MANY VISITS OVERALL DID YOUR CHILD HAVE WITH THESE HEALTH CARE PROVIDERS?

__ __ *[Total # Of Visits To All Providers]*

15. WHICH TYPE OF CARE PROVIDER DID YOU TAKE YOUR CHILD TO SEE MOST OFTEN?

_____ *Provider Code (lower case letter from Provider list)* _____

16a. APPROXIMATELY HOW MANY TIMES DID YOUR CHILD SEE THIS PERSON?

__ __ (*2 Digits, Total # of visits to provider seen most often / only provider seen)*

b. HOW MANY TIMES WITHIN THE LAST SIX MONTHS?

__ __ *(2 Digits; # of visits to provider <u>in last 6 months</u>)*

17. HOW SATISFIED WERE YOU WITH SERVICES RECEIVED FROM THIS PERSON?

1 Very Satisfied
2 Somewhat Satisfied
3 Somewhat Dissatisfied
4 Very Dissatisfied
-- DK; No Response

18. IS _____ CURRENTLY TAKING ANY MEDICATION ON A REGULAR BASIS?

0 No [ *Go to Question 19* ]
1 Yes *[ List all medications currently taken by child with the corresponding illness, medical problem or condition. Codes will be supplied in office ]*

a. Medication #1

_____ *[Code: ____ Office Use Only]*

FOR WHAT PROBLEM? _____

b. Medication #2

_____ *[Code: ____ Office Use Only]*

FOR WHAT PROBLEM? _____

c. Medication #3

_____ *[Code: ____ Office Use Only]*

FOR WHAT PROBLEM? _____

19. DURING THE PAST YEAR, HAS _____ BEEN HOSPITALIZED (STAYED OVERNIGHT IN A HOSPITAL) FOR MEDICAL , OR EMOTIONAL/PSYCHOLOGICAL PROBLEMS?

0 No [*Go To Next Form* ]

1 Yes [*Ask For <u>Each</u> Hospitalization. . .*]

a. Hospitalization #1

REASON? _____

NUMBER OF DAYS? _____ [ 3 Digits]

b. Hospitalization #2

REASON? _____

NUMBER OF DAYS? _____ [3 Digits]

c. Hospitalization #3

REASON? _____

NUMBER OF DAYS? _____ [3 Digits]

d. Hospitalization #4

REASON? _____

NUMBER OF DAYS? _____ [3 Digits]