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# Developing and Tailoring Mental Health Technologies for Child Welfare: The Comprehensive Assessment and Training Services (CATS) Project

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This article describes the development and implementation of the Comprehensive Assessment and Training Services Project, a multidisciplinary center designed to prevent children from lingering in the foster care system and to provide early interventions to prevent lifelong problems. This article outlines the conditions that led to the identified need for such a program; the conceptual model used to guide protocol development and refinement; the methodological approach to evaluation, intervention, and technology transfer; specific program components; and, finally, the challenges and barriers to success.

The enactment of the Adoption and Safe Families (ASFA) legislation in 1997 refueled an already raging national debate about the capacity of the child welfare system to address the needs of maltreated children and their families (Kortenkamp & Ehrle, 2002). This mandate to more expeditiously move foster children into adoptive and other permanent placements occurred when the incidence of child abuse and neglect was at an all-time high (Sedlak & Broadhurst, 1996). In fact, the Third National Incidence Study of Child Maltreatment (Sedlak & Broadhurst, 1996) documented that the total number of children in danger of serious maltreatment nearly doubled between 1986 and 1993 (Haugaard, 1999). The already overburdened public child welfare system was confronted with a potential crisis, and professionals were challenged to develop innovative and efficient methods of identifying, evaluating, and managing cases of child maltreatment.

One remedy was for child welfare agencies to outsource specific programs and services to community partners. These partnerships, originally designed as capacity-management strategies, became unique opportunities for cross-fertilization of knowledge across professional disciplines and service delivery systems. Nevertheless, these types of collaborations were complex and difficult to maintain. Too frequently, the linkages and structures necessary for the development and transfer of "best practice" technology across systems were missing or poorly constructed, and promising solutions to some of the problems plaguing child welfare services foundered (Craig, Kulik, James & Nielson, 1998; Kamerman & Kahn, 1998; Snell, 2000). The dearth of effective research projects specifically designed to test the efficacy and economics of such innovations potentiated these problems, because the lack of such information prevented child welfare professionals from making empirically based, effective, incremental program design decisions (Courtney, 1999, 2000).

This article describes an approach that attempts to better understand and address the issues delineated above. The Comprehensive Assessment and Training Services (CATS) Project is a collaborative effort conducted by the University of Kentucky (the flagship university of the state), the Commonwealth of Kentucky Cabinet for Health and Family Services (CHFS), and local urban county government that has successfully partnered with existing systems (child welfare, the judicial system, county government) in a way that meets the unique challenges of ASFA and a local child welfare mandate. The CATS project was designed to respond to the need for more comprehensive and timely evaluation, planning, and intervention in cases of child maltreatment to enable children

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to achieve stability and permanency in the most expeditious manner. This article outlines the systemic problems that led to the identified need for such a program, the theoretical framework used to guide protocol development and refinement, the methodologies used in the evaluation and intervention processes, the specific program components, and, finally, the challenges and barriers to success. Specific attention is paid to the processes used to develop and maintain the appropriate system linkages.

## Review of Representative Literature

About 1.4 million American children are maltreated each year, and, of these, an estimated 160,000 children are seriously injured, while between 1,000 and 2,000 die from maltreatment yearly (Wissow, 1995). Most of the nearly half million children in foster care in the United States have known only repeated abuse and prolonged neglect and have never experienced a long-term, nurturing, stable environment during the early years of life (Sedlak & Broadhurst, 1996). This situation is particularly serious because such environments are critical for healthy brain development and to cultivate the abilities needed for persons to adequately participate in society (Garbarino, Guttman, & Seeley, 1986; Pynoos, Steinberg, & Goenjian, 1996). Studies support the fact that maltreated children endure disproportionately high rates of physical, developmental, and mental health problems (Sedlak & Broadhurst, 1996), with the promise of compromised developmental trajectories leading to disproportionate involvement in the mental health, juvenile justice, adult criminal justice, and social service systems (M. Benoit, 2002; D. Benoit & Parker, 1994; Briere, 1992; Cahill, Kaminer, & Johnson, 1999; Finzi et al., 2001). Even those children who are removed and placed in the foster care system suffer three to seven times as many acute and chronic health conditions, developmental delays, and emotional adjustment problems as other children, because they have a "reservoir of unmet pediatric and psychiatric needs" (Rosenfeld et al., 1997, p. 448).

The impact of child maltreatment on the developing brain of young children has received considerable attention in the literature (Huttenkocher, 1994; Shonkoff & Phillips, 2000; Office of the Surgeon General, 1999; Turner & Greenough, 1985; Van Ijzendoorn, Schuengel, & Bakermans-Kranenberg, 1995). During the first 3–4 years of life, the anatomic brain structures that govern personality traits, learning processes, and coping with stress and emotions are established, strengthened, and made permanent (Huttenkocher, 1994; Turner & Greenough, 1985). It is known that emotional and cognitive disruptions in the early life of children have the potential to impair brain development. Paramount in the lives of these children are their need for continuity with primary attachment figures and an enhanced sense of permanence. Among populations of children known to suffer maltreatment, approximately 48% demonstrated insecure attachment patterns (Van Ijzendoorn et al., 1995). Although early childhood attachment disorders can only be probabilistically linked with later negative outcomes (Thompson, 1999), the development of such disordered coping approaches likely creates developmental pathways that predispose young children for later adolescent and adult psychopathology (Dozier, Stovall, & Albus, 1999; Kinard, 1999; Luntz & Widom, 1994; O'Connor, Rutter, & the English and Romanian Adoptees Study Team, 2000).

At the same time, recent developments in neuropsychiatric research have led to the more hopeful conclusion that the brain is capable of neuronal repair and redirection (Perry & Azad, 1999; Perry, Pollard, Blakely, Baker, & Vigilante, 1995). If this is the case, then specialized interventions occurring during critical developmental periods can probably prevent significant numbers of young children in care from developing severe adolescent and adult psychopathologies (Friedrich, 2002; Graham, White, Clarke, & Adams, 2001).

In sum, the literature appears to direct innovative child welfare programming toward proactive identification of children in care, rigorous multidimensional assessment, feasible treatment and case planning, expeditious implementation of the planned interventions, and careful evaluation of child health and mental health outcomes. Protection and permanency should be the overarching goals of such assessment, case planning, intervention, and evaluation approaches.

## Systemic and Statewide Problems Leading to the Need for the CATS Program

As was the case in most states in the late 1990s, workers in Kentucky health care systems, social services systems, and judicial systems were frequently overwhelmed by their responsibilities and case loads. There existed serious shortages of qualified personnel to review cases, and the press of managing urgent

cases often precluded proactive and creative approaches. The annual turnover rate for child welfare case workers was as high as 70% in some states (Sedlak & Broadhurst, 1996), and the situation in Kentucky was no exception. Additionally, qualified workers who were recruited and retained did not always have mental health backgrounds, which made attention to the mental health needs of the child more problematic (Legislative Research Commission, 1998).

Access to comprehensive case data (i.e., medical, mental health, criminal, and academic records) was hampered by long waits and the lack of qualified professionals with the time and expertise to work with public child welfare personnel. Mental health reports, when available, were often riddled with psychological jargon (which was confusing to child welfare professionals) and irrelevant conclusions. Almost universally absent was the synthesis of clinical findings into the broader context of family functioning and risk. Additionally, evaluations provided by different providers contained contradictory data, which made it difficult to determine the significance and priority of any particular finding. It became the task of workers and supervisors to synthesize the results and translate findings into a feasible case plan. Because of access problems, lack of mental health expertise, high staff turnover, heavy case loads, and untimely report completion, the case plan was often completed without significant health and mental health information or with invalid information. Such compromised case planning undermined the tasks of problem solving and treatment and impeded systemic progress toward ASFA goals of permanency and protection.

In 1999, key managers in Kentucky's CHFS believed that comprehensive, multidisciplinary, timely assessments of maltreated children and their families, aimed at identifying and treating the unique needs of these families with the latest technologies, would decrease the amount of time children spend in out-of-home care. As a result, the CHFS developed a public–academic partnership with the University of Kentucky College of Social Work and College of Medicine, Department of Psychiatry, to develop an innovative approach to assessment and case planning that would assist the state in meeting ASFA goals (Richart, 1999). Initial discussions led to the mission to develop assessments that would be comprehensive, integrative, developmental, preventive, longitudinal, summative, culturally sensitive, child sensitive, child welfare sensitive, standardized, and parsimonious (see American Academy of Pediatrics, Committee on Early Childhood, Adoption, and Dependent Care, 2000). In accordance with these guidelines and with best practice technology from around the country, the development of the CATS Project commenced.

## CATS Program Conceptual Model

We found it essential to develop a conceptual model that would focus project design and guide protocol development to address the individual and systemic issues involved in child maltreatment evaluation and treatment, within the context of the child welfare system. The early decision was to create a program that did not adhere to standard mental health consultation models (i.e., creating evaluations of child psychopathology with only secondary attention to contributing family pathology). The CATS conceptual model would have to meet the following requirements: (a) The model would have to be open to a number of domain-specific theories that were germane to the problems of child maltreatment; (b) the model would need to include interactions among individual, dyadic, family, and systemic phenomena (including professional and welfare institutions; i.e., biopsychosocial dynamics); (c) the model would have to incorporate both adaptive and maladaptive responses to maltreatment; and (d) the model needed to be readily operationalizable and testable over time.

Our review of the scientific and clinical literatures, interviews with key informants, and our own clinical knowledge base, garnered from collective decades of experience with children and families, directed us to careful consideration of four theoretical areas of investigation: coping theory, trauma theory, attachment theory, and a transactional model of developmental psychopathology.

First, contemporary coping theory posits that persons do not simply become dysfunctional as the result of a stressor (Lazarus, 1993; Lazarus & Folkman, 1984). Rather, there is significant variation among children's responses, which are related to personal dispositional factors and environmental contexts. Additionally, there is variation among the outcomes of particular responses to maltreatment (i.e., similar coping styles may yield adaptive outcomes in certain situations and maladaptive outcomes in different contexts; Lazarus, 1993). Second, contemporary trauma theory also points to such variation and challenges the idea that specific adverse events always lead to specific traumatic outcomes across in-

dividuals and situations (Anthony & Cohler, 1987; McFarlane & van der Kolk, 1996). Research on childhood trauma suggests that family functioning, the nature and quality of attachment relationships, revictimization, social support, and the type and variety of traumas experienced over an individual's life span are potential mediating factors in the development of posttrauma pathology (Banyard, Williams, & Siegel, 2001). Third, attachment theory privileges the dyadic caregiver–child relationship and recognizes that the foundation of caregiving is affected not only by multiple environmental factors impacting the dyad but by significant developmental–historical factors contained in the dyad (Thompson, 1999). Finally, developmental psychopathology (Sameroff & Chandler, 1975) allows us to contextualize maladaptive behavior through examination of the socioenvironmental and familial processes by which responses are created and modified. Although the idea of developmental interruption or malformation is powerful, there is also strong emphasis on the possibility of adaptive reconfiguration and recovery.

In accordance with this "interactional" or "transactional model," the subsequent theoretical specifications were accepted by the CATS team to guide protocol development (Sameroff & Chandler, 1975):

1. Child maltreatment is rarely a random event.
2. Maltreatment can be traumatic and continuous and act as an ongoing stressor.
3. Symptom patterns can vary and are related to the type of maltreatment.
4. The child's response to maltreatment influences current attachment relationships.
5. Parental response to maltreatment is significant in predicting the child's short-term reactions to maltreatment.
6. There is variation in responses by families and communities to maltreatment.
7. Development is dependent on person–environmental transactions.
8. Opportunities exist for corrective interventions over time.

The transactional model of maltreatment derived from this framework includes five domains for measurement and assessment. These include child factors, adult factors, relational factors, socioenvironmental factors, and maltreatment factors. Maltreatment factors refer to the frequency, duration, severity, and intensity of maltreatment. Type of maltreatment (e.g., neglect, physical abuse, sexual abuse, comorbid presentation of these, threat of future harm) is critical to assess. Child factors include age, developmental status, gender, temperament, biomedical status, intelligence, self-esteem, and socioeconomic status. The child's appraisal of the maltreatment, coping responses to maltreatment, and attribution of blame are important. Family factors include level of functioning, caregiver substance use or misuse, quality of caregivers' relationship (e.g., domestic violence), caregiver health and mental health, caregiver trauma history, caregiver attunement to child's needs, nature and quality of child–caregiver attachment, parenting competence, residential stability and housing quality, relationship with the child's school, capacity to utilize environmental and social supports, and poverty. Maltreatment-specific family factors include the family's postmaltreatment support of the child, family appraisal of maltreatment, beliefs about and attitudes toward the child, and behavioral responses toward the child. Socioenvironmental factors include the sociocultural ethos regarding maltreatment, institutional responses to maltreatment (including child welfare, mental health, and criminal justice systems), the economic social support resources in the community, and the general economic conditions that often shape the above.

Delineation of these five factors allowed us to develop the assessment and measurement strategies described in Table 1. Although these factors can be conceptually distinct for purposes of assessment, it is critical to note that these domains overlap and interact in the actual maltreatment situation, creating extraordinary levels of complexity in the clinical situation. For example, maltreated children who live in a community that is vigilant for maltreatment, have the economic resources to hire and train well-educated and committed child welfare professionals who can refer to pediatric health and mental health professionals, and have recourse to a just and efficient family court might have different experiences than children who are maltreated in situations with few or none of these resources. Although this seems like an obvious point, most maltreatment assessment protocols do not venture to include and formulate the transactions of such social factors. With approaches to conceptual and measurement problems in place, the CATS

Table 1
*Measures by Domain of Interest*

| Factor and measure | Domain of information |
|---|---|
| Child factors | |
| Child Behavior Checklist | Behavioral functioning |
| Conners | |
| Child Depression Inventory | Level of depression |
| Sentence completion | |
| Denver | Developmental status |
| Receptive–Expressive Emergent Language Scale | Language development |
| Physical | Physiological status |
| Adult factors | |
| Brief Symptom Inventory | Psychiatric distress |
| Trauma Recovery Scale | Trauma exposure/recovery |
| Substance Abuse Subtle Screening Inventory | Substance use profile |
| Child Abuse Potential Inventory | Child abuse potential, ego strength |
| Relational factors | |
| Family Adaptability and Cohesion Evaluation Scale | Family adaptability and cohesion |
| Working Model of the Child Interview | Narrative representation of child |
| Crowell | Nature and quality of attachment |
| Parent–Child Reunion | Relationships |
| Parenting Stress Index | Parenting stress |
| Kempe Family Stress Interview | Risk for caregiving difficulty |
| Socioenvironmental factors | |
| Home Inventory | Home environment |
| School Visit/Interview | Academic performance |
| Child Behavior Checklist—Teacher Report | Interface with school personnel |
| Conners—Teacher | |
| Systemic/Iatrogenic Problems | Child welfare history |
| | Criminal justice history and status |
| | Medical history |
| Psychosocial evaluation | Social capital |
| Maltreatment factors | |
| Child Protective Services Severity Rating Scale | Nature of severity of maltreatment |
| Psychosocial evaluation | Duration of maltreatment |
| Content analysis of child welfare record | Frequency of maltreatment |
| Content analysis of criminal justice record | Role of perpetrator in child's life |
| | Threat of future harm |

Project turned to the thorny problems surrounding implementation.

## Methodology

### *Protocol Design Features*

The CATS team uses the concept of "triangulation" to design a protocol that integrates qualitative and quantitative methodologies to explore specific factors identified in the transactional model as important areas of inquiry. This multitrait–multimethod approach is used to determine the degree of convergence (or divergence) between multiple measures of the same trait and seeks to reduce the risk of systematic distortion or bias that is inherent in the use of only one method. Webb, Campbell, Schwartz, and Sechrest (1966) argued that the collection of data from different sources and their analysis with different strategies improves the validity of results. Preliminary hypotheses formulated during the early stages of the evaluation are subjected to a series of tests using varying methodologies in an environment that has been designed to reduce errors that can be caused by social and psychological constraints. Manageable caseloads, increased insulation from legal reprisals, and appropriate training and professional development, coupled with a focus on critical thinking through case consultation, peer review, and case conferencing, creates an atmosphere of intellectual debate and inquiry. Suppositions that are not rejected during this process are regarded as more valid than hypotheses tested only with the help of a single method and outside the context of a properly prepared environment.

Triangulation, however, is used not only as a process of cumulative validation but also as a means to produce a more complete picture of the investigated phenomenon. Because the variations of qualitative and quantitative methodologies used in the project were developed with different theoretical and epistemological assumptions, combining the methods increases the scope and breadth of the evaluation. Following the transactional model framework described above and a bias toward methodological triangulation, we developed an evaluation protocol that consisted of standardized instruments; semistructured interviews; content analysis of mental health, medical, academic, criminal, and CHFS records; and observations and physical examinations. The transactional framework and the identification of specific risk factors that we believe predict maltreatment recidivism guided the selection of specific domains of inquiry. Table 1 provides an overview of the domain-specific procedures.

## *Procedures*

The methodological approach used by the CATS Project is further enhanced by the use of a multidisciplinary team of social workers (who hold masters in social work and PhD degrees), psychiatrists, pediatricians, psychiatric nurses (advanced registered nurse practitioners), and psychologists to conduct the evaluations. The members of the team have expertise in infant and child development, trauma, attachment, child maltreatment, and developmental psychopathology. Because CATS is also a university-based training center, psychiatric residents, medical students, doctoral fellows, and masters level students participate as junior team members under the supervision of the case assigned team leader and their clinical supervisor. This type of multidisciplinary perspective minimizes profession-specific biases that may alter or derail protocol fidelity.

Referrals to the program are screened by CATS program staff to determine eligibility and then evaluated for acceptance on the basis of a set of standard assessment decision rules. On the basis of contract specifications (with the CHFS), those eligible for the CATS services include children (a) for whom an initial child protective services investigation has been completed, the report of abuse or neglect substantiated, and a case opened; (b) in families at or below 200% of the poverty level (if still in care of their biological parents); or (c) in a concurrent planning home (potentially adoptive home) or foster care placement (if scheduled to return home in 2 weeks); and (d) residing in the Commonwealth of Kentucky. Participating families are referred by the child protection workers for voluntary participation in the program, or their involvement may be court ordered. Although children from birth to 5 years of age are a priority and constitute the majority of CATS cases, latency age children and older siblings are also evaluated. Additionally, all significant caregivers are included in the interview, including noncustodial parents, close relatives, and foster parents. Because healthy attachments are viewed as a critical element in a child's healthy development, each child is evaluated in the context of a relational dyad.

Prior to final acceptance of the case, a case conference is scheduled with the referring child protective services worker, who is asked to bring all relevant CHFS documents pertaining to the family in question, present a short synopsis of the situation to a case review team, and articulate his or her queries and concerns about the case. A case is considered appropriate for a full evaluation if (a) a full CATS assessment is essential to the adjudication and/or case planning process, (b) the case is complex and initially yields no clear issues or specific questions that could be addressed through alternative evaluation methods, (c) all parties are willing and able to consent to the evaluation, (d) the CHFS worker cooperates with the provision of records and evaluation protocols, (e) there is a clear indication that the caregiver–child relationships are a significant dimension to case planning and/or adjudication, and (f) the family and child are able to participate in the evaluation. Focal assessments are accepted when the questions or concerns are more circumscribed than those involved in a full CATS evaluation (e.g., separation of siblings or specific treatment planning issues). Procedures and instrumentation in these focal evaluations involve case-specific selection of those available in the standard evaluation. The final report format is tailored to address a more narrow range of issues and is generally briefer than the full evaluation report. If the case is deemed inappropriate for CATS involvement (e.g., primary issue is a custody battle or the CHFS investigation is incomplete), the proper services or referrals are provided. If the case is accepted, the case review team makes a determination about the practicalities of the evaluation (e.g., scheduling format, grouping of participants), addresses any safety or transportation concerns, and obtains consents and record releases for all participating children in CHFS custody. Full CATS assessments require one to two

all-day sessions at the clinic, supplemented by school and home visits.

## *Motivational Approach to the Initial Intake*

One of the great problems facing professionals who wish to assess children and caregivers identified by the child welfare system is the anxiety and resistance persons bring to the evaluation process. This is especially true when these persons have been targets of or witnesses to traumatic maltreatment and/or if they are the perpetrators of maltreatment (Bryant & Harvey, 2000; Thyfault, 1999). As in all settings, unless interviewees can decrease their anxiety and become less defensive, valid data gathering is a low-probability event (Shea, 1998). To address these clinical problems, the CATS team borrowed the motivational interviewing approach, which has demonstrated considerable success with substance abusing patients presenting with limited motivation to participate in evaluation and treatment (Miller & Rollnick, 2002). Critical features adapted for the CATS protocol include (a) full explanation of the CATS program, (b) emphasis on informed consent processes, (c) encouraging children and adults to tell "their side of the story" until they are satisfied that the clinician understands their viewpoint, and (d) respecting the natural ambivalence held by the interviewee about participating in the evaluation process. The emphasis is on sustained and respectful "engagement" of the interviewees so that information they share will more likely be valid and the procedures in which they participate will be more representative of their behaviors outside the clinical setting.

## *Parent–Child Interactions and the Attachment Relationship*

The Crowell procedure (Crowell & Feldman, 1988) was developed on the basis of the work of Bowlby (1973, 1980) and Klaus, Kennel, and Klaus (1995) and includes consideration of the functional aspects of the caregiving relationship that may or may not be present in the various relationship dyads that make up the family. This procedure was selected for use in the CATS protocol after an extensive literature search and visits to the top child evaluation and treatment centers in the nation, including the Infant Mental Health program run by Charles Zeanah, MD, at the Tulane University School of Medicine. The Crowell procedure examines factors such as attachment (for the child, security–exploration) and bonding (for the caregiver, emotional availability and commitment), vigilance and protection, physiological regulation through organized structure and responsiveness to the child's needs, affect regulation and sharing (child) and empathic responsiveness (caregiver), learning and teaching behaviors, the ability to play, and self-control and discipline. All these factors are considered with the use of standardized instruments and observations of parent–child interactions. More specifically, the Crowell procedure is a semistructured laboratory play session adapted from Matas, Arend, and Sroufe's (1978) "tool use task," which was originally developed for 24-month-old children and then enhanced for use with children up to 60 months of age. The 45-min videotaped (through a one way mirror) procedure involves nine episodes of caregiver–child interactions designed to elicit these specific aspects of the relationship. In addition to the nature and quality of interactions during the specified developmentally graded tasks, special attention is paid to transitions, the separation, and, most important, the reunion. The observing clinician, by telephone or intercom, communicates modifications during the procedure. Caregivers are interviewed following the completion of the procedure to determine whether the interaction was representative of a typical interaction. Results that are deemed atypical or that may have been distorted by fatigue, illness, hunger, or other factors are repeated. A scoring procedure is also used to quantitatively assess the nature and quality of the caregiver–child interactions in five caregiver domains (behavioral responsiveness, emotional responsiveness, positive affect, irritability/anger, and withdrawal/depression) and seven child domains (positive affect, withdrawal/depression, irritability/anger, noncompliance, aggression, enthusiasm, and persistence with tasks). This coding procedure is used as a validity check and is typically scored blind to the qualitative findings and compared for quality assurance and research purposes. Standardized instruments such as the Parent–Child Reunion Inventory (Marcus, 1990) are also used to illuminate the caregiver–child relationship in these young children.

For school-aged children, the domains of inquiry are modified to address the children's developmental status. An observational procedure has been designed that contains some of the same structural features of the Crowell procedure and includes some of the task components of the Marschak (1960) protocol. These developmentally specific domains include reaffirma-

tion of the attachment relationship, stress reduction, direction/structure, mastery/autonomy, and peer group affiliation.

## *Caregiver Perceptions*

A child's working model of attachment develops in the context of his or her relationship with caregivers and his or her adaptation over time to the caregiving environment. The affective and cognitive "models" that are developed during childhood are thought to be incorporated into the individual's personality structure and can be considered a relatively static construct. The term *working* is used to describe the process of filtering all experiences through these constructs and taking actions on the basis of these narrative representations. Working models of relationships are considered to be general guides for how an individual interacts in social, marital, and caregiving relationships (Zeanah et al, 1997). The Working Model of the Child Interview, developed by Zeanah, Benoit, Hirshberg, Barton, and Regan (1994), is a semistructured interview designed to assess a caregiver's narrative representation of caregiving and his or her relationship to a particular child. This qualitative interview allows the clinician to rate the qualitative features of the interview in terms of richness of detail, openness to change, intensity of involvement, coherence, caregiving sensitivity, acceptance, infant difficulty, and fear for safety as well as the affective tone of the representation (e.g., anger, joy, anxiety, and indifference). The caregiver's overall narrative representation is conceptualized into one of three predominate categories: balanced (either full, restricted, or strained), disengaged (either impoverished or suppressed), or distorted (either distracted, confused, role reversed, or self-involved).

## *Standardized Instruments*

Numerous self-report measures, inventories, child behavior checklists, and structured interviews are administered as part of the regular protocol and are listed in Table 1. These measures are designed to tap psychiatric morbidity, child abuse potential, family functioning, substance use behavior, parenting stress, trauma exposure and recovery, child behavior and functioning, depressive symptomatology, and the quality and function of the home environment. Many of these instruments contain response distortion indices and/or nonface valid items to minimize the error associated with self-report measurement.

## *Content Analysis of the Records*

A significant contribution to the overall evaluation is a synthesis of previous findings from other providers or data sources. A content analysis of the criminal justice record, medical and mental health records of all family members, academic records for each child, and prior child protection records provides important contextual data for assessing current and future risk. Determining how to weigh this information in terms of predicting future functioning requires seasoned, professional judgment. CATS employs a number of specialists who can review records with a critical eye for significant findings. For example, pediatric medical records often contain valuable information that is not routinely sought out by child welfare staff. A pattern of noncompliance with medical appointments and a series of accidental injuries with some inconsistency in the reported mechanism of injury (each below the threshold of child protective services referral) can be revealing of family functioning. A pattern of utilizing hospital emergency rooms for acute, non-life-threatening illnesses suggests there may be a lack of routine pediatric care and should be addressed in the family's case plan. Likewise, a medical record that contains evidence of regular and routine appointments for well childcare may indicate effective family function at some level.

## *The Final Evaluation Report*

The evaluation report presents the findings of this assessment in a systemic manner. All raw data are organized and presented by procedure in tables and then synthesized and presented in a user-friendly format at the end of the report. The conclusions and recommendations presented for each child are contextualized to the specific child welfare and legal circumstances of the case. A case conference is held with the child welfare worker to discuss the findings and implications of the evaluation and to assist in case planning and court testimony. The CATS report is provided to workers prior to dispositional and termination hearings to enhance judicial decision making and expedite permanency.

## *Interventions*

In the fall of 2000, the CATS team began to develop a treatment initiative to (a) address the needs of foster/adoptive children and their families who had

been assessed in the CATS program and (b) respond to concerns raised by the CHFS about the growing number of adoptions that were being disrupted in Kentucky. A first step in the development of treatment protocols was the identification of existing model programs in the literature and new technologies under development and receiving support from the National Institute of Mental Health, Child Welfare League, and other federal funding sources. Programs specifically designed for children from birth to 5 years old and their families were selected for further study. Two relational interventions were chosen because the goals and objectives of these models were consistent with the identified needs of the population being assessed at the CATS clinic. The selection of all intervention protocols was guided by the understanding that a child's biopsychosocial development is greatly impacted by experiences in the first 5 years of life. Events such as trauma, neglect, and child maltreatment can have a deleterious effect on the course of development and the child's overall well-being. Therefore, treatment must consider the child in context of his or her social environment and primary attachment relationships. With this in mind, the intervention protocols utilized by CATS are guided by the following principles.

Treatment should (a) emphasize the importance of the relationship rather than behavior, (b) empower the parent(s) to nurture the child even when the child resists, (c) recognize that parents are doing the best they can and need help and encouragement rather than criticism, (d) assist by modeling appropriate behavior, (e) teach parents to identify their own biases that may interfere with effective parenting, (f) help parents feel supported and recognize their struggles are not unique, (g) provide opportunities for experiential learning rather than relying on purely didactic presentations, (h) help the parent understand that the child's behavior results from frustration with caregivers who were not nurturing and dependable in the past, and (i) stress the importance of allowing children to affect their world through their relationship with the parent.

To date, funding limitations prohibit the intervention protocols from being delivered to children in nonadoptive placements. Currently, the project is pursuing additional monies to fund the delivery of these services to biological families, especially those cases in which psychosocial failure to thrive has been identified as a primary area of concern.

## *Technology Transfer*

All of the clinical protocols that are developed as a result of this endeavor are viewed not as a final product but as the basis for further testing and refinement. As new aspects of the program are developed, the new and existing procedures are reevaluated in context of new applications. For example, the treatment team has instigated two new treatment initiatives. The goals of these initiatives are (a) to develop, implement, and test therapeutic interventions to prevent adoption disruptions in families with children with attachment-related problems, and (b) to develop, implement, and test behavior-change and prevention strategies to reduce the incidence of child maltreatment in substance abusing families. As each assessment and treatment protocol is formalized, the process of technology transfer begins.

Multiple methodologies are used to test the technology (i.e., qualitative and quantitative) and to disseminate this technology to the public child welfare system and community-based providers across the Commonwealth of Kentucky. Telepsychiatry, formal education delivery systems through the University of Kentucky, and collaboration with institutional-based training centers such as the Training Branch of the CHFS are mechanisms used to facilitate this technology transfer.

## *Research Infrastructure*

The CATS Project has a number of research protocols aimed at evaluating program effectiveness, testing and refining protocol, and exploring causal relationships between various comorbid conditions and the nature and severity of child maltreatment. To facilitate this work, we created a research infrastructure called the Research on Child Maltreatment Project (RCMP). Under the auspices of the CATS program, this research initiative performs advisory, governing, consulting, and regulatory functions for clinic-based research and is staffed by the four principal investigators of the project from the College of Medicine, Department of Psychiatry, and the College of Social Work as well as selected representatives from across the university community. The RCMP has four core components: the Administrative Development Council, the Research Collaboration and Outreach Group, the Biostatistical Consulting Council, and the Clinical Research Group. The efforts of these groups facilitate the development and refine-

ment of protocols and guide the development of effective system linkages.

## *Challenges and Concerns*

The CATS project has "suffered" at times from its own success. Following program launch in January 2000, referrals to the program steadily increased, and requests for services, at times, threaten to exceed capacity. This phenomenon can be traced to four primary factors: (a) increased demands from the judiciary who have begun to court order noneligible individuals for CATS evaluations, (b) significant service demands from remote, rural portions of the state, even though the program was originally funded as a local endeavor, (c) heavy promotion of CATS services by senior CHFS officials, and (d) requests for CATS services for individuals and families not originally targeted in Phase 1 of the program. Each of these factors represents an obstacle to effective and efficient service delivery by potentially overwhelming the system and diluting the focus of the project. The CATS team has responded to these obstacles in the following ways: (a) securing additional funding from the CHFS to build capacity and to serve additional populations, (b) developing a system to prioritize referrals on the basis of mental health needs, (c) redefining our service population to include rural regions through the use of telepsychiatry and modified technologies, (d) educating CHFS personnel, community providers, and the judiciary about the CATS program and its role in the mental health service delivery system, and (e) developing, on an ongoing basis, proposals to federal government and private foundations proposing employment of CATS clinical and research databases to address service expansion needs.

Fortunately, the CATS Project has been able to forge and sustain critical linkages with the CHFS, the legal system, and pediatric mental health care providers throughout the state. A primary reason for this outcome has been the staff's attention to developing and enhancing relationships with case workers, supervisors, attorneys, judges, and mental health providers. This focus is necessary in the face of the daily vicissitudes of working with extremely challenging cases. For example, the project staff extends itself to work closely with child welfare workers who are seeking services for their clients even after the evaluation has been completed. The recruitment and training of project staff who understand their specific duties in the context of these larger issues has been important. Strong support from CHFS leaders has allowed CATS the opportunity to be innovative, to expand service delivery at a reasonable pace, and to secure other types of funding.

Another important component of success has been the interdependent nature of the relationships. Early on, CATS was recognized as filling a niche that could be essential for the advancement of the CHFS objectives. Stakeholder recognition and support was critical to the acceptance and sustainability of the project. This was made possible by consistent contact and communications with professionals in the child welfare, university, judicial, and mental health systems and the development of a "team spirit" that underscored the shared mission but differing roles and responsibilities of the various members. This is especially important when recommendations from the CATS team are contrary to the positions taken by other parties. Our context must be broad in scope and our methodologies rigorous enough to support the findings generated during the evaluation process, even if the recommendations are unpopular or contrary to the position taken by any of the key players. The monitoring of protocol fidelity and diversification of funding sources has become critical to program integrity and sustainability. Attention to these matters has made the project's intellectual independence possible in the context of interdependent reliance for political and financial support.

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