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Clarke, Brandy L.; Sheridan, Susan M.; and Woods, Kathryn E., "Conjoint Behavioral Consultation: Implementing a Tiered Home-School Partnership Model to Promote School Readiness" (2014). *Faculty Publications from Nebraska Center for Research on Children, Youth, Families, and Schools*. 99.

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Published in *Journal of Prevention & Intervention in the Community* 42:4 (2014), pp. 300–314;
doi: 10.1080/10852352.2014.943636
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Published online October 15, 2014.

Conjoint Behavioral Consultation: Implementing a Tiered Home-School Partnership Model to Promote School Readiness

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Abstract

An ecological perspective to school readiness focuses on child and family readiness by enhancing the developmental contexts and relationships within which children reside (e.g., home environment, parent-child relationship, home-school relationships). The Getting Ready intervention is an ecological, relationally based, tiered intervention providing both universal and intensive services to children and families to promote child and family school readiness. Intensive-level consultation services were provided via Conjoint Behavioral Consultation (CBC; Sheridan & Kratochwill, 1992, 2008). The purpose of this article is to describe the implementation and effects of CBC within the Getting Ready intervention to promote child and family school readiness. Keys to successful implementation of the CBC intervention and issues needing further investigation are discussed.

Keywords: Conjoint Behavioral Consultation, implementation, fidelity, school readiness

Traditionally school readiness has been conceptualized as children’s readiness to learn with a focus on the curriculum and methods for increasing children’s preacademic skills and remediating deficits (Preschool Curriculum Evaluation Research Consortium, 2008).

An ecological perspective to school readiness focuses on enhancing the contexts and relationships surrounding a child, including the home and school environment, parent-child relationship, and relationships across home and early education systems (Mashburn & Pianta, 2006). Early intervention efforts focused on working with parents have yielded stronger effects on children's outcomes than those providing services directly to children (Love et al., 2005). Partnerships developed between parents and educators have been shown to predict children's academic, behavioral, and social-emotional outcomes (Henderson & Mapp, 2002) and school readiness (Denham & Weissberg, 2004). Thus, research supports an ecological approach to school readiness efforts focused on strengthening environments and relationships that support children's learning.

Tiered approaches in early childhood services are emerging to address the varying needs of children based on the premise that unique and individualized needs of young children indicate the provision of varying levels of intervention. In a tiered approach, universal levels of interventions grounded in empirical support are used to promote the learning and well-being of all children and families. Children who do not respond to universal supports receive increasingly targeted and intensive interventions to reach optimal levels of functioning. Some intensive interventions occur within the context of a problem-solving consultation framework, ideally involving families and schools working together to help children achieve school success.

Early childhood consultation models are relatively new, yet several studies have demonstrated the effectiveness of consultation as a means for addressing a variety of concerns in early childhood settings (Pianta, Mashburn, Downer, Hamre, & Justice, 2008; Raver et al., 2009; Upshur, Wenz-Gross, & Reed, 2009; Williford & Shelton, 2008). For example, Raver and colleagues (2009) tested a multicomponent mental health intervention model which included three types of mental health consultation: (1) coaching, (2) a one-day stress reduction workshop, and (3) child-directed services. In a randomized trial, children in the treatment condition had a reduction in both internal and externalizing behaviors when compared with a control group.

Despite the positive outcomes demonstrated through the use of consultation models in early childhood, several questions or challenges related to its study and implementation limit the information that can be gleaned from research in this area. Clear and consistent operationalized definitions of consultation services are often lacking within and across studies. With a multitude of definitions, determining the effects of consultation services within the body of literature is difficult to determine. Additionally, without clearly specified definitions of early childhood consultation models, there are many procedural inconsistencies across studies regarding what constitutes consultation services. A traditional assumption of consultation services is that they are indirectly applied to a consultee(s) who then acts as a treatment agent in his or her own setting. However, a myriad of services, such as assessment, support groups, and individual and group therapy, are often included in the description of consultation services. An early childhood mental health consultation model described by Raver et al. (2009) lists three types of services that were provided under the umbrella of consultation services. Such global definitions and inclusion of multiple components make it difficult to determine the potential effects of specific early childhood consultation services.

Given differences in definitions and procedural approaches, measuring aspects of implementation of consultation interventions can be difficult. Fidelity to specified procedures and differentiation of the models' theory and practices (Dane & Schneider, 1998) may be especially challenging to determine, thereby limiting the potential for dissemination and adoption of consultation models in practice. To address these implementation issues, it is critical that definitions of consultation services and procedures are clearly specified so that important elements of implementation can be measured to fully understand intervention effects. This information would aid in the diffusion of consultation research and adoption of such models into practice. The purpose of this article is: (1) to clearly define and specify the consultation model and procedures that were used as part of the Getting Ready intervention, as well as (2) present findings on implementation fidelity of the consultation procedures and the effects of CBC. Keys to successful implementation and future directions in implementation research related to the use of this specified model will also be discussed.

Conjoint Behavioral Consultation

Conjoint Behavioral Consultation (CBC; Sheridan & Kratochwill, 1992, 2008) is an evidence-based (Guli, 2005) indirect model of service delivery that was used in the Getting Ready intervention as a means to provide preschool children with intensive, individualized supports to address academic and behavioral concerns. The Getting Ready intervention was developed as an ecological approach to promoting school readiness on behalf of children birth to age five participating in home- and center-based early education and intervention programs. Getting Ready is a relationally based intervention designed to promote parental *competence* and *confidence* in fostering children's school readiness and enhanced relationships with educators.

CBC has been shown to be effective for addressing behavioral, socioemotional, and academic concerns among a variety of child populations (see Sheridan, Clarke, & Burt, 2008; Sheridan, Eagle, Cowan, & Mickelson, 2001), including those in early childhood programs (Sheridan, Clarke, Knoche, & Edwards, 2006). However, issues related to the implementation of CBC and its effectiveness as implemented within the tiered Getting Ready intervention have not been examined. Below is a description of the definition, theoretical foundation, and procedural specification of CBC that differentiates it from other intervention services in early childhood and other educational settings.

Definition

CBC is defined as: "A strength-based, cross-system problem-solving and decision-making model wherein parents, teachers, and other caregivers or service providers work as partners and share responsibility for promoting positive and consistent outcomes related to a child's academic, behavioral, and social-emotional development" (Sheridan & Kratochwill, 2008, p. 25). The structured problem-solving process is facilitated by a consultant with parents, teachers, and relevant service providers engaged collaboratively and simultaneously in all stages of consultation. The consultant facilitates the decision-making process

and supports capacity building on behalf of parents and teachers via information and resource sharing and parent/teacher training, enabling them to serve as effective treatment agents responsible for promoting desirable outcomes in children.

Theoretical Foundation

The CBC model is based on an ecological (Bronfenbrenner, 1977) and behavioral approach to learning and behavior change. Children are believed to develop within and across various systems that exert bidirectional and reciprocal influence over each other and the child. Positive connections and relationships among systems are critical to the child's optimal development. The primary systems considered within CBC are the home and school. The process utilized in CBC implementation facilitates cross-system partnerships based on mutual trust and respect to encourage shared responsibilities and joint problem solving for children's learning and development. CBC promotes continuity across environments via open communication, shared goals, and congruent approaches, attitudes, and actions (Christenson & Sheridan, 2001). Its goals are to promote positive academic, behavioral and socioemotional outcomes on behalf of children via cross-systemic problem solving and to strengthen partnerships across home and school (Sheridan & Kratochwill, 2008).

The CBC model is also based on the assumption that behavior is learned through interactions that a child has with his or her environment. Determining the cross-systemic environmental contingencies that promote and maintain positive behaviors and prevent problematic behaviors based on presumed environmental functions of the child's behavior is key to the consultation process and plan development. CBC is goal directed, solution focused, and data based. Behavioral targets are clearly operationalized and observational data across settings are used to jointly set goals and monitor children's progress throughout the process.

Utilizing a combined eco-behavioral approach, it is believed that the strength of the home-school relationship that is developed throughout the CBC process is partially responsible for desired child behavior change. Preliminary research investigating the effects of CBC on young children's internalizing and externalizing behaviors found that the parent-teacher relationship mediated the effects of CBC on children's increased adaptive and social skills and was marginally significant as a mediator for improved externalizing behaviors (Sheridan et al., 2012). Thus, the theoretical foundation and supporting evidence for CBC purports that change on behalf of the child occurs by promoting strong home-school partnerships that allow for the careful identification of functionally relevant environmental variables that are manipulated in cross-systemic plan development.

Procedural Specification

CBC is a dynamic and ongoing process that is operationalized procedurally in four conjoint stages: needs identification, needs analysis and plan development, plan implementation, and plan evaluation. A series of structured interviews are used to guide three of these stages; however, other actions within and across stages occur outside of the interviews as well. The four stages are described in more detail below, including content (outcome) and process (relational) objectives.

Conjoint Needs Identification

The first stage of CBC is conjoint needs identification. This stage, typically initiated via a semi-structured interview (*Conjoint Needs Identification Interview, CNII*), involves specification and definition of target concerns (i.e., priorities) and goals for behavior change or skill development. Specifically, the consultant helps parents and educators identify, prioritize, and define a child's needs across settings. Data collection procedures are established to assess the child's current functioning, identify relevant cross-setting conditions (e.g., adult and peer attention, task demands, routines) that may be related to the child's behavior or performance, and may guide goal setting and plan development. During this initial stage, the consultant begins to establish a trusting, working relationship among the consultees. The importance of shared responsibility is discussed and co-equal roles are identified to ensure equal opportunity in decision making. Strengths within the partnership, as well as potential areas for improvement, are also identified. Consultant-focused objectives for the CNII and subsequent interviews are specified and are used to determine fidelity to the CBC process (see table 1).

Table 1. CBC Interview Objectives

Conjoint Needs Identification Interview (CNII)

1. Open dialogue by reviewing purpose of meeting and roles of participants
2. Discuss child's strengths
3. Discuss goals and desires for child
4. Discuss needs for the child
5. Select and define the target behavior for consultation
6. Select a target setting or time when behavior occurs for consultation
7. Discuss what has worked and what has not to address behavior before
8. Identify procedures to collect assessment information on the target behavior
9. Set up a time to meet again

Conjoint Needs Analysis Interview (CNAI)

1. Open dialogue by reviewing purpose of meeting
2. Discuss data collected and set goals for the child
3. Determine what may be contributing to the behavior (i.e., functional assessment)
4. Develop a hypothesis for why the behavior is occurring based on functional assessment
5. Develop a home-school plan
6. Identify procedures to collect information on child's progress toward goals
7. Set up a time to meet again

Conjoint Plan Evaluation Interview (CPEI)

1. Open dialogue by reviewing purpose of meeting
 2. Discuss data collected and how the plan worked across home and school
 3. Determine outcomes of the plan (i.e., goals met, side effects)
 4. Determine if there is a need to continue, change, or terminate plan
 5. Discuss need for future meetings
 6. Identify ways to continue collaborative process (e.g., communication across home and school, maintain plan)
-

Conjoint Needs Analysis and Plan Development

During the conjoint needs analysis stage and corresponding *Conjoint Needs Analysis Interview (CNAI)*, baseline data are reviewed and behavioral goals are set. Conditions occurring

in and across settings are discussed to determine their relationship to the target concerns. Hypotheses regarding these relationships are discussed and cross-setting intervention plans are developed to meet the individualized needs of the child, family, and educators. Interventions are created that are culturally sensitive and responsive to the diverse needs of families and the educational setting. Additionally, the consultant continues to focus on the family-school partnership, facilitating open communication and joint decision making. Similarities across settings are emphasized and differences are approached as an opportunity for perspective-taking and increasing understanding. All parties are involved in development of the consultation plan with a strong focus on utilizing consistent strategies across settings, and establishing methods of communication that can be maintained once consultation is terminated.

Conjoint Plan Implementation

The third stage of CBC is plan implementation. Despite the lack of a formal interview for this stage, consultants regularly communicate with parents and teachers to monitor treatment integrity and initial responses to interventions. The consultant provides training and coaching to parents and teachers throughout this stage to support effective implementation. Frequent communication ensures that necessary plan adjustments can be made in a timely manner. Data collection continues so that comparisons of the child's behavior or skill development between baseline and treatment implementation phases can be made to discern initial effects of implementation plans.

Conjoint Plan Evaluation

The final stage of the CBC process is plan evaluation. This stage is structured via the *Conjoint Plan Evaluation Interview* (CPEI). Behavioral data are reviewed to assess the child's progress toward identified goals. Based on the child's progress, decisions regarding changes to the intervention and next steps within the consultation process (i.e., continuing until goals are met, terminating, addressing new priorities) are discussed. The consultant emphasizes the strengths of the partnership and its relationship to the effectiveness of the intervention and CBC process. Supports for continued partnering and communication are identified. Tools and resources for maintaining the partnership and aiding future problem solving are provided. The consultant also emphasizes the roles that each member played in the process to promote a shared sense of responsibility and adoption of roles that collectively contribute to child success.

Implementation of CBC

CBC services were provided within the Getting Ready intervention to preschool children enrolled in Head Start classrooms in a moderately sized Midwestern city. Preschool children in the Getting Ready treatment condition were referred to participate in CBC due to parents' or teachers' expressed concern with academic, behavioral, or socioemotional functioning. Twenty-eight preschool children (mean age 3.5 years), their parents or guardians ($n = 23$), and their teachers ($n = 13$) participated in CBC. In some cases, parents and teachers

participated in the CBC process more than once throughout the study. Eight graduate student consultants enrolled in a counseling or school psychology graduate program trained to mastery in the CBC process and procedures facilitated the consultation process.

Fidelity to the CBC Process

Fidelity to the CBC procedures was measured by assessing consultant adherence to the objectives for each CBC interview (see table 1). Simple adherence to each of the objectives was measured to indicate whether consultants discussed each objective and gathered the relevant information across home and school. Three research assistants who had been trained in the CBC model coded audio-recorded CBC interviews collected throughout the Getting Ready intervention. The total sample of audio-recorded interviews included 68 recordings for five consultants. Some interviews were not recorded due to parent request or audio equipment malfunctions.

One third ($n = 22$) of the sample of recorded sessions were randomly selected and coded to assess consultant fidelity to the CBC process. Adherence to CBC was defined using checklists of interview objectives to determine the fidelity to the CBC structure (Mowbray, Holter, Teague, & Bybee, 2003; O'Donnell, 2008). Specifically, identification of objectives met out of the number of possible objectives per interview were calculated to determine CBC adherence. The mean total percent adherence across all of the coded interviews was 92.36% (range = 42–100%, $SD = 15.58$). Percent adherence across the three interviews varied slightly, but CBC was considered to have been implemented with high fidelity across the interview sequence (CNII $M = 96.86$, $SD = 8.32$; CNAI $M = 91.13$, $SD = 15.17$, CPEI $M = 89.29$, $SD = 21.79$; see table 2 for more results by interview).

Inter-rater reliability was conducted for 30% of the sample of coded interviews. The average percent agreement between coders for adherence to interview objectives (i.e., objective was met or not) was 88.5% (range = 82–100%).

Table 2. Percent Adherence to CBC Objectives

Interview	<i>n</i>	<i>M</i>	<i>SD</i>	Range
CNII	7	96.86%	8.32	78–100%
CNAI	8	91.13%	15.17	57–100%
CPEI	7	89.29%	21.79	42–100%

Effects of CBC

The effects of CBC on children's behavior and performance were examined using a series of small-*n* experimental designs. Of particular interest was whether CBC provided added value to the Getting Ready intervention for children demonstrating academic and behavioral concerns by promoting specific skill development in children. A systematic investigation of CBC efficacy was not possible as all participants were already part of an intervention group receiving the Getting Ready school readiness intervention.

Behaviors most frequently selected for consultation were noncompliance, peer interactions, toilet training, aggression, and literacy and language skills. The most common intervention components across home and school were positive reinforcement, prompts, praise,

skills training, and home-school notes (i.e., two-way communication and intervention monitoring system). To support intervention plan implementation, consultants made frequent phone calls and made home or classroom visits. They conducted parent training in 33% of cases to support treatment fidelity at home, assisted with classroom management 9% of the time to model management techniques for teachers, and referred the child for outside assessment or mental health services 2% of the time.

Effect sizes for CBC were derived, parent-delivered interventions in home settings were calculated for 7 cases; effect sizes for teacher-delivered interventions were computed for 17 cases at school. Effect sizes were computed for all behaviors using a *no assumptions* approach (Busk & Serlin, 1992). Separate mean and median effect sizes are reported for effects on children's behaviors recorded across home and school. Effect sizes were calculated by computing the difference in individual phase means (baseline and treatment) and dividing them by the standard deviation of baseline behavior, producing an index of treatment effects.

Across participants and settings, the mean and median effect size for behavioral outcomes was 1.41. The average effect size across behavioral outcomes in the home setting was 2.39 ($SD = 4.11$); the median was 0.72. Similarly, the average effect size across behavioral outcomes in the school setting was 3.00 ($SD = 3.18$); the median was 1.12. Average case outcomes suggest children improved approximately one standard deviation above baseline performance. According to Cohen (1988), these effects would be considered "large." As there was no matched control group for those children who received CBC, comparisons across CBC and the Getting Ready control group cannot be made. Additionally, the sample size for this examination was relatively small and results should be interpreted with caution. However, these findings demonstrate that the CBC process showed promise for improving children's behavioral and academic performance. Thus, for children who were not responsive to the universal Getting Ready intervention, CBC implementation appeared effective at providing intensive levels of support to promote school readiness.

In summary, CBC was implemented with high fidelity by early childhood consultants, as evidenced by adherence to interview objectives. Furthermore, the process was effective at addressing individual target concerns for children needing individualized support in addition to the universal Getting Ready intervention. Keys to successful implementation of the CBC process are discussed below.

Keys and Challenges to Successful Implementation of CBC

Critical aspects related to the fidelity with which CBC is implemented include the level of training and supervision provided to consultants and treatment integrity support offered to parents and teachers. The keys and challenges related to implementing CBC with fidelity are described below.

Training and Supervision

Specified training models and procedures for CBC have been developed (Sheridan & Kratochwill, 2008). Modules include understanding behavioral assessment and interven-

tion; implementing structured consultation procedures; and utilizing effective communication, relationship-building, and interpersonal skills. Implementation in early intervention settings also requires specific knowledge and skills related to early childhood development, early education and intervention, and parent and teacher training techniques used to promote school readiness. All consultants participated in a practicum training experience wherein they received training in CBC implementation and case management relevant issues (e.g., scheduling meetings, managing conflict among consultees). As part of the training experience, consultants received weekly individual supervision. Throughout the training, consultants' fidelity of implementation of interview objectives was measured to ensure mastery of the process (i.e., 80% adherence to CBC objectives). Beyond the training experience, consultants conducting CBC casework in the Getting Ready intervention received biweekly group supervision regarding implementation and considerations unique to early childhood (e.g., developmental considerations, plan implementation in early education settings). This intensive training and supervision experience helped to support the high degree of fidelity of implementation of the CBC model as part of the Getting Ready intervention.

Supporting Fidelity of Home and School Plans

CBC consultants typically use several strategies to increase treatment fidelity of the home and school plans developed through the CBC process. Such strategies include providing parent and teacher training on data collection and treatment implementation (Sanders, Turner, & Markie-Dadds, 2002), specifying and monitoring the key components of the intervention (Sandler et al., 2005), providing ongoing feedback regarding fidelity (Elliot & Mihalic, 2004; Sanders et al., 2002), and identifying and addressing barriers to implementation (Sandler et al., 2005). Treatment integrity is often evidenced through aspects of intervention plans that yield permanent products (e.g., sticker charts, home-school notes, self-monitoring sheets) and treatment plan worksheets. Consultants monitor plan implementation via direct observation in the home and school settings and assist consultees with accurate intervention implementation via direct skills training, modeling, developing materials, and coaching. Barriers to treatment fidelity are identified and addressed directly to determine what is needed to increase fidelity (e.g., increased training, alternate plans, altering the environment or routines to increase fit) as part of the problem-solving process.

Despite practical strategies used by consultants to support the implementation of treatment plans across home and school, direct measurement of fidelity was not conducted. Whereas fidelity of consultants' implementation of the CBC process was high, no data are available regarding the fidelity of the treatment plans as implemented by parents and teachers. Previous CBC research has incorporated formal self-reports, observational data, and permanent products to measure treatment fidelity of plan implementation by parents and teachers (Sheridan, Swanger-Gagné, Welch, Kwon, & Garbacz, 2009). This research found average implementation rates by teachers to be between 87% and 99%, depending on the source of information used to report fidelity. For parents, the range was 81% to 88%, suggesting generally high treatment plan implementation fidelity across both settings.

Future Directions in CBC Implementation Research

The construct of intervention implementation has been operationalized as a multidimensional construct (Dane & Schneider, 1998). The dimensions described herein include program differentiation (defined as the extent to which a program can be distinguished from others by theory and practice) and adherence (defined as the extent to which an intervention is implemented as originally intended). However, there are several other implementation features around which information is necessary to understand implementation as an active ingredient of intervention science. Dosage refers to how much of the intervention program is delivered, or its strength and intensity (Dane & Schneider, 1998). Although the sequence of the CBC problem-solving process has been specified, the flexible and responsive nature of CBC lends to variations in the sessions, number of interviews and length of intervention required for each case. Some cases require multiple sessions to identify effective treatment plans and monitor treatment progress. Other cases recycle through the problem-solving process more than once to fully address the target concerns for specific children. Furthermore, consultants engage in activities outside of problem-solving interviews that support the process, such as modeling intervention implementation and maintaining frequent communication about intervention strategies. These activities comprising consultation as an intervention have not been fully operationalized in the model, and are therefore not understood in relationship to implementation and efficacy. In other words, the variance in dosage inherent in the model needs to be explored as an implementation issue that may influence the effects of CBC.

Quality with which CBC is implemented is a salient implementation issue (Dane & Schneider, 1998; Mowbray et al., 2003) that likely influences treatment effects. The goals of the CBC include both promoting positive outcomes on behalf of children and strengthening home-school partnerships. Fidelity to interview objectives was measured via simple adherence whereby consultants discussed and gathered the relevant interview information. The quality with which they addressed these objectives was not measured. Additionally, promoting parent-teacher partnerships requires the consultants to employ relationship-building strategies throughout the consultation process. The identification and measurement of these strategies was not addressed, but may have significant implications for treatment outcomes. A fidelity indicator incorporating the multiple dimensions of adherence, dosage and quality may best capture implementation in a way that is meaningful for understanding its influence on outcomes.

Ultimately, an educational intervention has little chance for success if participants fail to respond to its active ingredients. In CBC, parent and teacher engagement in the problem-solving process may be a potent indicator of responsiveness. The degree to which parents and teachers engage in the CBC process (Hogue, Liddle, Singer, & Leckrone, 2005) is likely to influence many other aspects of treatment plan implementation, including their adherence to program components, as well as quantity and quality of implementation (Durlak & DuPre, 2008; Shediak-Rizollah & Bone, 1998). It also likely influences the relationship formed between home and school. The level of parent and teacher engagement is especially important to the consultation process given that it is an indirect service delivery model. Further exploration of this implementation issue is important to understanding the

effects of CBC and may also help to explain the conditions under which CBC is effective or not.

Summary and Conclusions

The Getting Ready intervention is a multidimensional, relationship-based approach to promoting school readiness for children at risk for school failure. It employs a tiered approach to intervention, allowing service providers to meet the varying needs of children and families by providing differing levels of support to promote children's learning and development. The purpose of this article was to define CBC as a consultation program, and describe attempts to assess and support its fidelity for preschool children enrolled in Getting Ready. Results indicate that CBC was implemented with high fidelity and was an effective process for addressing academic, behavioral, and socioemotional concerns identified by parents and teachers. These findings suggest that CBC provides a promising approach to promoting school readiness on behalf of children in need of intensive support services. However, more information on the impact and implementation of complex features of CBC are needed to fully explain and understand its effects, making the diffusion and adoption of CBC more likely.

Although not explicitly tested, the findings of this study might suggest that as parents participate in early intervention efforts such as Getting Ready, they develop skills and expertise to support their child's learning and form relationships with teachers to bring about their child's success. They also begin to understand the pivotal role they possess in their child's education. With successful early experiences, parents may develop competence and confidence to address future concerns for their child and engage in collaborative problem solving with professionals to promote success throughout their child's educational career. Tiered interventions, such as Getting Ready and CBC, address unique child and family needs and provide supports intended to promote necessary skills and strengthen important relationships to ensure successful experiences for all children, including those at risk of school failure. To achieve these programmatic goals, however, and to extend the effects of the intervention broadly, implementation features, need to be better understood. For example, formal assessment of training fidelity, supervision, and home and school plans is needed to extend knowledge regarding the implementation of CBC. Studies that directly test hypotheses regarding implementation fidelity and its effects on child outcomes are needed to discern components of interventions that are necessary or sufficient to produce desirable outcomes; the conditions under which results can be expected; and participants are most likely to benefit (Durlak & DuPre, 2008). These and related research directions represent the next generation of CBC implementation studies.

Acknowledgments – Special appreciation is extended to the families and teachers who participated, including the Head Start agency administration, for their willingness to cooperate and learn with us throughout the project. The development of this article was supported by a grant awarded to Drs. Susan Sheridan and Carolyn Pope Edwards by the Department of Health and Human Services (DHHS)–National Institute of Child Health and Human Development (NICHD), Administration for Children and Families (ACF), and Office of the Assistant Secretary for Planning and Evaluation

(ASPE); and the Department of Education (ED)–Office of Special Education and Rehabilitative Services (Grant #1R01H00436135). The opinions expressed herein are those of the investigators and do not reflect the views of the funding agencies.

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