

# Reducing Behavior Problems in Early Care and Education Programs:

## An Evaluation of Connecticut's Early Childhood Consultation Partnership

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By: Walter S. Gilliam, PhD  
Assistant Professor of Child Psychiatry and Psychology  
Child Study Center  
Yale University  
School of Medicine



# IMPACT

Ideas and Information  
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This publication describes the results of a rigorous random-controlled evaluation of the Early Childhood Consultation Partnership (ECCP), a statewide system of early childhood mental health consultation for early education and child care programs throughout Connecticut. This study is the first evaluation of a large-scale early childhood mental health consultation program, and its results will be of interest to program developers, scholars, and decision-makers within Connecticut and nationally. The evaluation was funded by the Children’s Fund of Connecticut.

This IMPACT report is a summary of information contained in the evaluation’s final report, which provides considerably greater details about ECCP, the evaluation methods, and the findings.<sup>1</sup>

A Tolland County preschool teacher requested Early Childhood Consultation Partnership services to try to address the increasingly aggressive behavior of one of her students. Whenever he got upset, Jose would climb on and push over furniture, kick and hit the walls, and run out of the classroom. Jose’s mother was initially hesitant to try the ECCP services, but she decided to give the program a chance, in the hope that it would help prepare her son for a successful transition to kindergarten.

Jose’s mother, his teacher, and his ECCP consultant met to consider strategies, and together discussed several interventions for the boy’s behavior. One example of the strategies they used was a “relaxation thermometer,” a visual reminder for Jose of how he could calm himself down. Using this and several other techniques, Jose began to display a greater sense of predictability, self-control, choices, and emotional expression.

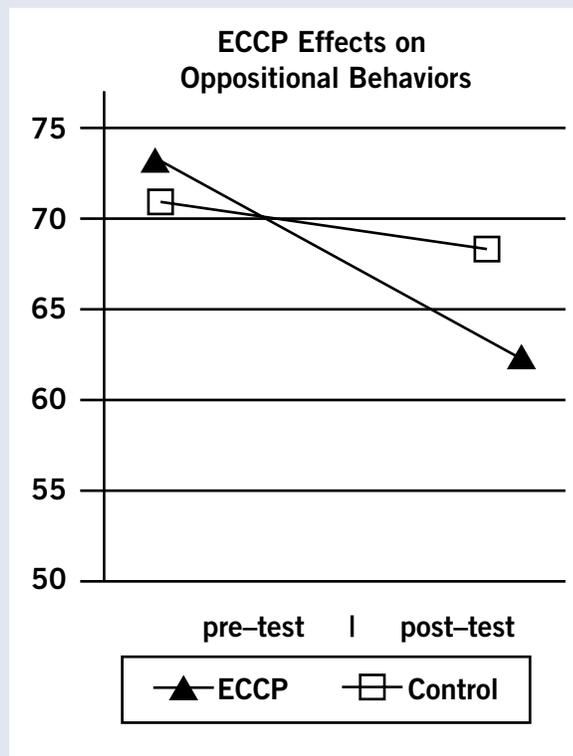
Both the teacher and Jose’s mother have since reported that he is far less aggressive and has had a smooth transition into kindergarten.<sup>a</sup>

<sup>a</sup> Both of the narrative vignettes included in this publication were provided by ECCP Program Manager Elizabeth Bicio, LCSW, at Advanced Behavioral Health. The vignettes are fictionalized examples of actual consultation services that were provided, and the names and locations have been changed to protect confidentiality.

## Significant Findings

ECCP was successful at achieving its primary goal – reducing classroom behavior problems in children. Overall findings include:

- ❖ Children in classes receiving ECCP services showed significant decreases in behavior problems, relative to children in classes not receiving ECCP services.
- ❖ Positive effects were greatest in the areas of decreased oppositional behaviors and hyperactivity.
- ❖ No evidence of positive effects was found in overall classroom quality, teacher-child interactions, and teacher beliefs and feelings.



Pre-kindergarten teachers who report having an ongoing relationship with a classroom-based mental health consultant are about half as likely to report expelling a preschooler, relative to teachers with no such support.

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## Background

Severe behavior problems during the preschool years are a meaningful predictor of continued behavior problems, poor peer standing, and academic difficulties during kindergarten.<sup>2, 3</sup> Fortunately, high quality early education and intervention programs may prevent severe behavior problems in young children, especially for those from low-income communities and families.<sup>4, 5</sup>

However, some preschoolers may begin their early education programs with severe behavioral problems already present, potentially limiting their ability to participate fully and benefit from the early educational experience.<sup>6</sup>

Early childhood mental health consultation (ECMHC) may be an effective means for reducing severe behavior problems in early education and child care settings, as well as decreasing the likelihood of children with challenging classroom behaviors losing services through expulsion and suspensions.<sup>7</sup> Recent findings from a national study of pre-kindergarten teachers indicated that those who report having an ongoing relationship with a classroom-based mental health consultant are about half as likely to report expelling a preschooler, relative to teachers with no such support.<sup>8</sup> Only 23% of these teachers, however, reported regular classroom access to a mental health consultant.

The lack of clear descriptions of ECMHC and compelling evidence of effectiveness has been a significant limitation for the field. Although the practice of ECMHC has been described in detail,<sup>9, 10</sup> there are currently no published reports of its effectiveness using rigorous evaluation methods.

In a comprehensive review of all studies of ECMHC conducted between 1985 and 2005, 31 published and unpublished investigations were identified.<sup>11</sup> Only 11 studies used quasi-experimental methods, and none involved randomized controlled experiments. Overall, modest improvements in teacher- and parent-reported child social skills and behavior problems were reported, as well as improvements in teacher self-efficacy and parental involvement.

Findings in the area of reduced job stress and improved job satisfaction were inconsistent, perhaps due to the use of various measures of unknown validity. However, differences in ECMHC model, intensity, and duration, as well as cases where the ECMHC was embedded as part of a larger array of services, severely limit generalization, and none of the studies employed rigorous experimental designs capable of documenting its effects.

Only two of the studies reviewed by Brennan and colleagues (one quantitative and one qualitative) were ever reported in the peer-reviewed literature. In the only peer-reviewed *quantitative* study of ECMHC,<sup>12</sup> longer duration and higher intensity of consultation services were associated with lower staff turnover, higher teacher-reported self-competence, and higher program quality. However, sample sizes were small (nine centers receiving the service for more than one year compared to 14 centers receiving the service for under one year).

In the only peer-reviewed *qualitative* study of ECMHC,<sup>13</sup> staff members who reported a good relationship with their mental health consultant were more likely to report that the consultant was better integrated into the program, had more clearly delineated roles, and was generally more effective. The study employed interview techniques in three Head Start centers in the Pacific Northwest. Neither of these two studies was able to yield conclusions about the overall effectiveness of ECMHC, and neither included measures of child outcomes.

## The Early Childhood Consultation Partnership (ECCP)

Created in 2002 by a combination of public and private funds, the Early Childhood Consultation Partnership (ECCP) is an ECMHC program available to parents and staff at child care centers serving young children (infants to 5 years old) throughout Connecticut. ECCP is funded primarily by the Connecticut Department of Children and Families, with additional funds from the Department of Education. Typically, services are requested by child care center directors or staff, where there are either behavioral or social-emotional concerns for individual children or a desire to enhance the social-emotional climate of the classroom.

The consultation focuses on the overall social-emotional atmosphere within the classroom, also addressing both behavioral concerns for individual children and classroom-wide behavioral management challenges. Programmatic materials (including an overview of the resources used in the development of ECCP; consultant orientation, training, and supervision plans; referral and service guidelines; details on programmatic components and assessment measures; and instructions for using the centralized data collection system) are provided to consultants and are housed at the centralized program management office that administers the program.<sup>b</sup>

<sup>b</sup> For more information, contact ECCP Program Manager Elizabeth Bicio, LCSW, at Advanced Behavioral Health (Phone: (860) 704-6198; e-mail: ebicio@abhct.com). Ms. Bicio is responsible for coordinating and supervising consultation services, providing training modules and initiatives, collaborating with mental health providers and community agencies, and other activities surrounding the overall oversight and management of the program.

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ECCP's first year (October 2002 through June 2003) was a nine-month start-up period. During ECCP's second through fourth years, it has provided consultation services to 89 to 111 classrooms that likely serve over 1,400 children per year, and child-specific consultation reached 181 to 206 children per year. ECCP's annual budget during those years was between \$905,474 and \$975,542. With a recent increase in annual appropriations to \$2.6 million, the program will double in size (from 10 consultants to 20 consultants), increase its duration, strengthen its work with directors at the centers where services will be provided, and add an in-home component to link families to the consultation in the child care setting.

The ECCP service model is eight weeks long, with four to six hours of classroom-based consultation per week provided by one of 10 master's-level consultants supported by ECCP. The intervention is supported by the program's centralized Data Information System, where ECCP consultants enter data and formulate reports, such as the Child and Classroom Action Plans, that serve as detailed individualized service plans. ECCP is loosely manualized and menu-driven based on the individualized needs of children, teachers and classrooms. In addition to providing teacher training on various behavioral and social-emotional topics, the consultation has two main areas of focus:

- ❖ **classroom-specific consultation**, focusing on improving teacher-child interactions, classroom behavior management, and overall social-emotional classroom quality; and
- ❖ **child-specific consultation**, focusing on improving teacher-classroom behavioral and social-emotional strategies, parent partnerships, and community service referrals for specific children.

## ECCP Consultants

Although ECCP is managed by a centralized program management organization, each of the service's 10 consultants was employed individually by various subcontracted community-based agencies across Connecticut. At the time of the current evaluation's start, all 10 held a master's degree in a human services field, mostly psychology or social work. All were also trained mental health clinicians.

Although the consultants were not required to be licensed mental health providers, six of them held or were eligible for clinical professional licenses in counseling, marriage and family therapy, or clinical social work. Consultants received a variety of training lessons, organized into the following 13 units:

- ❖ the field of child care
- ❖ family day care and kith-and-kin care
- ❖ assessing quality care
- ❖ child mental health

- ❖ health promotion
- ❖ children with special needs
- ❖ abuse and neglect
- ❖ adult learning
- ❖ adult resiliency
- ❖ consultation
- ❖ team building
- ❖ partnering with systems
- ❖ community planning

Additional specific training topics included early childhood mental health consultation, multi-disciplinary consultation, abuse/neglect petition filing, computer training, maintaining confidentiality and federal regulations, helping young children cope with trauma, managing aggression in the classroom, personal safety, cultural competency, and attachment.

Consultants received regular clinical supervision through three means: (a) ECCP group supervision, (b) ECCP individual supervision, and (c) agency-based supervision.

*ECCP group supervision* was provided bi-weekly with each session lasting 2½ to 3 hours. These meetings included all consultants, were located at a centralized location, and focused on clinician-initiated case reviews for all ECCP consultations and provided ample opportunity for peer-to-peer learning, group supervision regarding the consultation work, and refreshers on all ECCP trainings previously discussed.

*ECCP individual supervision* meetings were conducted with each consultant on a monthly basis, or more frequently as needed, and typically lasted two hours per session. The purpose of the individual supervision was to provide an opportunity for individualized clinical consultation and review of clinical cases and data management, as well as to monitor individual consultant productivity and generate ideas with regard to the needs and direction of the ECCP program as a whole.

*Agency-based supervision* was also provided to each ECCP consultant by clinical supervisors at each consultant's host agency, with frequency ranging from weekly to monthly.

A pair of preschool teachers in Fairfield County had reported a high level of physical aggression among many children in their classroom. Subsequently, the program director of their school referred their class to the Early Childhood Consultation Partnership.

The ECCP consultant, a licensed social worker, conducted an assessment and made recommendations for a series of intensive interventions that would decrease the physical aggression in the classroom (particularly hitting behaviors) and teach the children more appropriate and pro-social behaviors.

In addition, the consultant helped the teachers create and implement a scripted social story for the class that emphasized using “nice hands,” and she outlined self-control techniques that can be used in place of aggression. The teachers shared the story with the parents of their students, and began a month-long focus on “Using Nice Hands,” incorporating the concept into a number of daily activities and classroom projects.

The preschool teachers have reported that the physical aggression of their students had decreased, and the preschoolers had begun to use the self-control techniques. Parents from this classroom have reported that they were seeing improvements at home by both the preschoolers and their siblings.

## Results of an Initial Process and Satisfaction Evaluation

A process evaluation of ECCP implementation and global teacher satisfaction was conducted during ECCP’s first year (2002-03).<sup>14</sup> Overall, the results indicated good fidelity to the ECCP project goals in terms of the range of classroom services delivered and completed and the characteristics of the targeted service population (i.e., children with aggressive behaviors that have been targeted currently or in the past for individualized services, such as special education). However, the number of children who received child-specific intervention was far smaller than anticipated.

Most teachers (57%) reported “great improvement” in the quality of their classroom environments, activities, and interactions. For child behavior, 81% reported “modest” to “great” improvement in the target children, and 78% reported this level of improvement in the class on the whole. Also, 76% reported improvement in their ability to identify children in need of mental health referral, and 88% reported feeling that ECCP reduces the likelihood of suspensions and expulsions. Most teachers reported sustained benefits from ECCP one to five months after services and continued use at least twice per week of the goals and steps in their Classroom Action Plans.

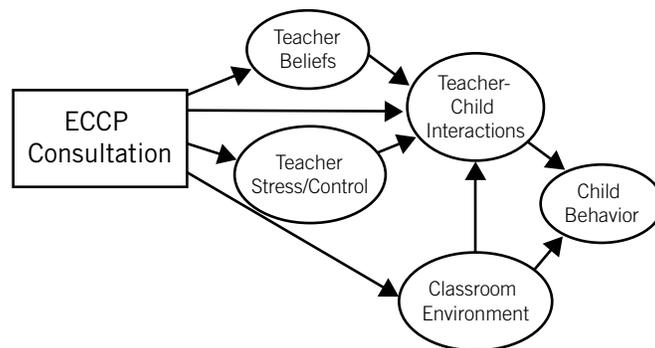
The purpose of the current evaluation was to evaluate the program's effectiveness in a statewide, methodologically rigorous, random-controlled evaluation.

Although the results were positive, the lack of a control or comparison group limited the ability to demonstrate program effectiveness. Nonetheless, this process and satisfaction evaluation was helpful in documenting general fidelity to service goals and encouraging hope in ECCP effectiveness.

## The Current Evaluation

The purpose of the current evaluation was to evaluate the program's effectiveness in a statewide, methodologically rigorous, random-controlled evaluation. As described above, ECCP is primarily an indirect model of consultation, in which the ECCP consultant works mostly with the teacher, rather than directly with the child. When families consent to child-specific services, they are involved in the development of the child-specific action plans and brief consultation is provided to the families to aid in generalization of outcomes to the home environment. However, most of the ECCP services focused on classroom-level changes with the teaching staff. Therefore, effects of ECCP on child behavior were hypothesized as resulting primarily from changes in (a) the teacher's knowledge and/or feelings about behavior management, (b) the quality of teacher-child interactions, (c) the quality of the classroom environment on the whole, and/or (d) the teacher's feelings of stress and control when dealing with challenging behaviors, which might then impact teacher-child interactions or influence the way in which teachers view challenging behaviors.<sup>7, 8, 15</sup>

### ECCP Evaluation Logic Model



Evaluation hypotheses were that participation in ECCP services would be associated with the following four outcomes:

1. Reduced teacher-rated behavior problems in target children (i.e., the two children in each classroom whose challenging behaviors concerned the teacher most)
2. Improved classroom environments and teacher-child interactions
3. Increased teacher beliefs and practices regarding developmentally appropriate and child-centered pedagogy
4. Decreased teacher job stress and depression and increased teacher sense of job control and satisfaction

Overall, ECCP demonstrated statistically significant decreases in teacher-rated externalizing or acting-out behavior problems in the classroom, relative to the control group.

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ECCP was evaluated in a randomized crossover evaluation design. During Cohort 1 (January 2005- June 2005), ECCP referrals were randomized to treatment ( $n = 23$  classrooms) or waitlist-control ( $n = 23$ ) conditions. During Cohort 2 (September 2005- March 2006), 20 of the 23 waitlist-control classes accepted services and formed the treatment condition ( $n = 20$ ), and classrooms were randomly selected from new referrals to form a no-treatment comparison group ( $n = 19$ ). Teachers completed child behavior ratings at pre-test (within two weeks before the start of services) and post-test (within two weeks following the last service visit) for the two children in each class whose behaviors were most concerning to the teacher during the pre-test interval ( $n = 144$ , after attrition).

Across both cohorts, classrooms were mostly in community-based child care centers (82%), with the remainder in Head Start centers (13%) or public schools (5%). Most target children were boys (72%), with an average age of 4.1 years. There were no statistically significant differences between children for whom complete data were obtained versus those for whom complete data were not obtained in terms of either gender or age at pre-test.

## Overall Conclusions

Overall, ECCP demonstrated statistically significant decreases in teacher-rated externalizing or acting-out behavior problems in the classroom, relative to the control group. The effects generally were consistent across the two measures employed, and were of a meaningful magnitude. Effect sizes were greatest in the area of oppositional behaviors and hyperactivity. There is little evidence of success at reducing internalizing behavior problems (e.g., anxiety, shyness, perfectionism, emotional lability). At pre-test, however, specific children targeted for ECCP services did not on average evidence clinically significant levels of internalizing problems.

Therefore, the ECCP intervention seemed to be more targeted toward children with externalizing behavior problems, and was more successful at reducing externalizing behaviors in the classroom. No evidence of effects on positive social skills (e.g., cooperation, self-control) was found.

In contrast, no significant effects of ECCP were found for observable classroom quality, teacher-child interactions, teacher beliefs regarding discipline or classroom management, or teacher job stress and satisfaction.

As a consultation service, ECCP is an indirect model of service. Consultative services were provided to the teachers and parents, but no ECCP services were provided directly to children. No evidence, however, was found to support any of the hypothesized pathways of effect (through improving classroom environments, changing teacher beliefs, or reducing teacher job stress and depression). Therefore, exactly *how* ECCP is effective at reducing teacher-rated externalizing behavior problems remains unknown.

## Why Were No Classroom or Teacher Effects Found?

Classroom effects may have been in areas too specific to be detected by these global classroom measures or may have been specific to individual children rather than the classroom environment on the whole. The classroom quality and teacher-child interaction measures used in the evaluation were not developed or validated as measures of consultation effect.

Likewise, measures of teacher beliefs and feelings used in this study are global and may not be specific to the areas most likely addressed by a classroom mental health consultant. Therefore, many of the aspects of classroom quality, interactions, and teacher beliefs and feelings measured in this evaluation may not be the same as the foci of the consultative service.

Rather than effecting global classroom quality, perhaps ECCP was effective at changing teacher behaviors in more specific ways that were not adequately measured by these classroom instruments. It is possible that classroom and teacher-child interaction effects may have only been at the individual child level for children targeted for specific ECCP services, and these effects may have been missed by the more global classroom measures used in the evaluation.

Perhaps differences in consultant focus and skills or the intensity of services may have diminished the overall effects in the area of classroom quality, teacher-child interaction, and teacher beliefs and feelings. Although the ECCP model is loosely manualized and there is a considerable amount of shared supervision that may increase consistency between consultants, ECCP consultants come from a variety of backgrounds with varying levels of training and experience.

Also, average service intensity in this brief consultation model ranged considerably, from a low of 2.4 hours per week to a high of 6.5 hours per week. However, the level of variability in ECCP service intensity appears to be far less than that which is typical across early childhood mental health consultants nationally.<sup>16</sup>

As the first rigorous evaluation of a large-scale early childhood consultation system, ECCP's effectiveness sets the only benchmark by which effects might be measured.

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## Significance and Limitations

The ECCP model is well described, but it falls short of the manualized approaches of specific classroom behavioral techniques. Because the ECCP model is fluid and implementation may vary depending on teacher and consultant input, the degree to which treatment fidelity can be assessed and managed is limited. Although flexibility of delivery may be advantageous in many respects, the lack of a clear manual and measures of treatment fidelity may create obstacles for exporting the ECCP model to other communities where ECCP administrative staff is not available. Interventions that have demonstrated effectiveness in both home and early childhood settings, such as Parent-Child Interaction Therapy,<sup>17-19</sup> may provide a useful guide regarding the standardization and manualization of the intervention.

It is possible that the positive effects on children's behavior are based largely on teacher perceptions that may not be detectable to raters who are unaware of whether the classroom had received ECCP services or not. Further evaluations of early childhood mental health consultation should use a variety of informants for child behavior impacts, including teacher report, parent/caregiver report, and classroom behavioral observations.

At eight weeks duration with 4 to 6 hours of planned classroom-based consultation per week, the ECCP model is clearly brief but relatively intensive. In this evaluation, 9% of the classrooms received less than the anticipated 32 minimum hours of classroom-based consultation. Early childhood mental health consultants have suggested that effective mental health consultation requires a long-term investment of time in order to build rapport, develop a sense of shared consultative goals, and create real and lasting change in classroom practices.<sup>9</sup> Unfortunately, no solid data exists showing the optimal amount of services or duration of contact necessary to maximize effects from early childhood mental health consultation.

Indeed, as the first rigorous evaluation of a large-scale early childhood consultation system, ECCP's effectiveness (given its brief but relatively intensive intervention) sets the only benchmark by which effects might be measured. Further evaluation should focus on better determining the amount of services necessary to maximize the program cost-to-effect ratio and the amount of services needed to maximize the amount of time effects might be sustained after active consultation ends.

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Although much has been written about the provision of mental health consultation and related services in early education settings,<sup>9, 10, 20</sup> there is little published evidence of the effectiveness of mental health consultation that does not focus on specific manualized techniques. As such, this evaluation is the first random-controlled evaluation of a widely implemented system of early childhood mental health consultation. Although the pathways of effect remain unclear, ECCP was effective at improving teacher-rated externalizing behavior problems and the model warrants expansion and further evaluations to better determine its mechanisms of effect.

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Child Health and  
Development Institute  
of Connecticut, Inc.

270 Farmington Avenue  
Suite 367  
Farmington, CT 06032

860.679.1519  
[chdi@adp.uhc.edu](mailto:chdi@adp.uhc.edu)  
[www.chdi.org](http://www.chdi.org)