Child–Adult Relationship Enhancement in Primary Care (PriCARE): A Randomized Trial of a Parent Training for Child Behavior Problems

Samantha Schilling, MD, MSHP; Benjamin French, PhD; Steven J. Berkowitz, MD; Susan L. Dougherty, PhD; Philip V. Scribano, DO, MSCE; Joanne N. Wood, MD, MSHP

From the Division of General Pediatrics (Drs Schilling, Scribano, and Wood), PolicyLab (Drs Dougherty and Wood), The Children's Hospital of Philadelphia, Department of Biostatistics and Epidemiology (Dr French), Department of Psychiatry (Dr Berkowitz), Department of Pediatrics (Drs Scribano and Wood), and Leonard Davis Institute of Health Economics (Drs Schilling and Wood), University of Pennsylvania School of Medicine, Philadelphia, Pa
The authors declare that they have no conflict of interest.
Address correspondence to Samantha Schilling, MD, MSHP, Division of General Pediatrics and Adolescent Medicine, UNC School of Medicine, 231 MacNider Hall, Chapel Hill, NC 27599 (e-mail: Samantha_Schilling@med.unc.edu).
Received for publication March 27, 2016; accepted June 18, 2016.

ABSTRACT

OBJECTIVE: Child–Adult Relationship Enhancement in Primary Care (PriCARE) is a 6-session group parent training designed to teach positive parenting skills. Our objective was to measure PriCARE's impact on child behavior and parenting attitudes.

METHODS: Parents of children 2 to 6 years old with behavior concerns were randomized to PriCARE (n = 80) or control (n = 40). Child behavior and parenting attitudes were measured at baseline (0 weeks), program completion (9 weeks), and 7 weeks after program completion (16 weeks) using the Eyberg Child Behavior Inventory (ECBI) and the Adult Adolescent Parenting Inventory 2 (AAPI2). Linear regression models compared mean ECBI and AAPI2 change scores from 0 to 16 weeks in the PriCARE and control groups, adjusted for baseline scores.

RESULTS: Of those randomized to PriCARE, 43% attended 3 or more sessions. Decreases in mean ECBI intensity and problem scores between 0 and 16 weeks were greater in the PriCARE group, reflecting a larger improvement in behavior problems [intensity: −22 (−29, −16) vs −7 (−17, 2), P = .012; problem: −5 (−7, −4) vs −2 (−4, 0), P = .014]. Scores on 3 of the 5 AAPI2 subscales reflected greater improvements in parenting attitudes in the PriCARE group compared to control in the following areas: empathy toward children's needs [0.82 (0.51, 1.14) vs 0.25 (−0.19, 0.70), P = .04], corporal punishment [0.22 (0.00, 0.45) vs −0.30 (−0.61, 0.02), P = .009], and power and independence [0.37 (−0.02, 0.76) vs −0.64 (−1.19, −0.09), P = .003].

CONCLUSIONS: PriCARE shows promise in improving parent-reported child-behavior problems in preschool-aged children and increasing positive parenting attitudes.

KEYWORDS: behavioral problems; corporal punishment; parent training; primary care

ACADEMIC PEDIATRICS 2017;17:53–60

WHAT'S NEW

PriCARE is a group parenting program focused on building an attachment relationship between parents and their preschool-aged children. Colocating PriCARE in a primary care clinic demonstrated improvement in child behavioral symptoms and positive parenting attitudes.

BEHAVIORAL PROBLEMS ARE common in young children. Approximately 11% to 20% of children in the United States meet diagnostic criteria for a behavioral health disorder at any given time.[1–3] Children with behavioral problems enter kindergarten disadvantaged in language, motor, social, and school readiness skills and are at increased risk of poor long-term academic outcomes.[4,5] Behavioral problems are also associated with increased risk of substance abuse, anxiety disorders, attention-deficit/hyperactivity disorder, and suicide.[1,6] Furthermore, children with behavioral problems are at increased risk of harsh parenting and physical abuse.[7,8]

While a multitude of environmental, child, and parental factors contribute to behavioral problems, ineffective parenting styles have been identified as a key causative factor. Permissive parenting characterized by an absence of rule setting, and authoritarian parenting characterized by a lack of warmth and nurturing, are both associated with child behavioral problems.[9] Parenting interventions that promote positive, authoritative parenting (characterized as reliable, dependable, and nurturing) can reduce the severity and frequency of behavioral problems, decrease parental stress, and reduce the risk of child maltreatment.[10,11]

The medical home is an ideal venue to provide parent training and support, yet pediatricians have made little progress toward addressing the long term behavioral,

learning, and mental health of children.[12] Between 25% to 50% of pediatric office visits involve behavioral or emotional concerns.[13,14] For some patients, referral to a behavioral health specialist is indicated.[15] However, others may not require intensive ongoing behavioral health treatment, yet could benefit from parenting support to prevent more severe behavioral health problems.

Child–Adult Relationship Enhancement (CARE) is a trauma-informed group-training program to teach caregivers techniques to support the social and emotional growth of children.[16] CARE was designed as a prevention model for children with behavior concerns who may be at risk for maltreatment.[16] Although CARE encompasses principles similar to existing evidence based parenting programs, CARE is considerably shorter and lends itself more readily to implementation in a medical home.

The theoretical foundation for CARE is derived from attachment and social learning theories.[17] When parents provide limited attention to children's positive behavior and overreact to misbehavior, children can become aggressive and noncompliant, which often leads parents to rely more on punitive and harsh parenting. Ultimately, this cycle can escalate to severe corporal punishment and physical abuse. CARE therefore emphasizes attending to positive child behaviors and establishing firm and appropriate parental control over disruptive child behaviors by targeting the parent–child interaction.[16]

The goals of this study were to: pilot a modified CARE program in a primary care clinic (PriCARE); and assess the efficacy of PriCARE to reduce behavioral problems in preschool-aged children and improve positive parenting attitudes.

METHODS

STUDY SETTING

We performed a randomized controlled trial of the efficacy of PriCARE in an urban primary care clinic associated with a large children's hospital. The clinic cares for approximately 11,000 pediatric patients per year, 70% of whom are insured by Medicaid; 15% of the patients are Hispanic, 43% are black, and 26% are white. Randomization occurred between May and December 2014; data collection was completed in April 2015.

PARTICIPANTS

Inclusion criteria included English-speaking caregivers of clinic patients 2 to 6 years old who consented to participate in a skill-based group-parenting program designed to improve child behaviors. No behavioral diagnosis in the child was required. Behavior was measured after consent was obtained. Children engaged in therapy or prescribed medication for behavioral health problems were excluded. In addition, because the PriCARE curriculum focuses of parenting skills for children with specific language and cognitive achievements, children with cognitive delays resulting in functioning below a 2-year-old level were excluded. Development was determined by the pediatrician on the basis of routine assessment. No study specific developmental assessments were administered.

To increase access to the program, a point-of-care alert in the electronic medical record prompted clinicians to inform parents of all children between 2 to 6 years presenting for well-child care about the PriCARE program and study. This point-of-care alert did not serve to screen for study eligibility. Such alerts are incorporated into the visit workflow, are utilized for research study recruitment in the practice network, and add fewer than 30 seconds to the visit. If parents consented, a member of the study team screened for eligibility, contacted the parent by phone, described the purpose of the PriCARE program and study, and obtained written informed consent to participate.

PRICARE INTERVENTION

The PriCARE adaptation of the CARE intervention changed the original 6-hour training provided over 2 days, to 6 weekly 1.5 hour sessions. This modification was made to increase contact between caregivers and trainers, to allow for additional material focused on stress management and the impact of toxic stress on behavior, and to allow for increased opportunity for caregivers to practice skills with their children. The caregivers of 6 to 8 children attended the 6-session PriCARE program together without their children. The initial phase focused on increasing positive parenting skills aimed at increasing attention to children's prosocial behaviors while ignoring minor attention-seeking misbehaviors.[15] The second phase taught techniques for giving children effective commands in order to set age-appropriate limits and increase compliance.[15] The sessions utilized role-play for practicing and reinforcing the skills taught during the training. Weekly homework was assigned for practicing the skills with their children. A stress education component contextualized the use of CARE skills with the types of behaviors exhibited by many children living with psychosocial adversity and chronic familial stress (Table 1).

PriCARE was administered in the morning and evening from a conference room with a large table and 10 chairs located in the clinic building. A member of the study team coordinated the sessions. To facilitate participation, barrier identification and troubleshooting were encouraged, and reminder text messages or phone calls occurred a day before each session. Childcare, snacks, and transportation reimbursement were provided. Eight PriCARE groups were held during the study period.

INTERVENTION INTEGRITY AND FIDELITY

Each PriCARE group was facilitated by 2 licensed mental health professionals who had completed the PriCARE training. All intervention materials used were standardized including the facilitator manual, video vignettes, caregiver home activities, and handouts. PriCARE trainers documented session activities after each session using a fidelity checklist. Trainer support to assure mastery of the CARE skills and review content and delivery of group sessions occurred during weekly meetings with a child