

Abstract Title Page
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Title: Preliminary impacts of SECURe PreK on child- and classroom-level outcomes.

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Abstract Body

Limit 4 pages single-spaced.

Background / Context:

Description of prior research and its intellectual context.

In the past 5 years, prevention science has witnessed the rapid expansion of rigorous research targeting improvement of low-income preschoolers' school readiness. Young children in poverty are more likely to be exposed to a range of poverty co-factors that place their chances for school success at substantial risk (Blair, 2002; Gershoff, Aber, Raver, & Lennon, 2007).

Correspondingly, many cluster-randomized efficacy trials of preschool interventions have explored multiple instructional processes that might serve as levers of change in improving low-income children's chances for later school success (Bierman et al., 2008; Raver et al., 2008; Diamond, Barnett, Thomas, & Munro, 2007). These intervention approaches have innovatively integrated social-emotional and academic emphases, with particular attention to children's self-regulation, interpersonal problem-solving, and relationships with teachers as important social-emotional foundations for learning. Common to this wide range of preschool intervention efforts is that they have been classroom-based.

While the preliminary evidence of the success of preschool classroom interventions is promising, a large gap remains as to how to successfully integrate these interventions into larger school contexts. The need for adaptation of classroom-based intervention into school settings is increasingly pressing: Across the nation, states now spend over \$5 billion per year to provide pre-K services to 1.2 million children, with many states (e.g., Maine, New Jersey, and Oklahoma) serving large percentages of 4-year-olds in public school buildings (Barnett et al., 2009). If the Obama Administration's Preschool for All proposal is successful, this number is likely to grow dramatically. The need to target low-income children's needs in school settings is critical, given research suggesting that disparities in poor vs. non-poor children's educational outcomes widen as they move through early elementary grades (Lee & Burkham, 2002; Magnuson, Ruhm & Waldfogel, 2007). In short, it is increasingly clear that we need innovative yet feasible ways to provide young, low-income children with higher levels of intervention support that is theoretically and pragmatically aligned across developmental domains and grades, and sustained over multiple years. Indeed, as part of the reauthorization of ESEA, the Department of Education and President Obama have proposed increasing alignment between early childhood and elementary schooling, and for "joint professional development activities for school staff and early childhood educators" (U.S. DOE, 2010, p. 2).

In this paper we present initial results from a pilot evaluation of the pre-K component of a new school-based intervention strategy (Social, Emotional, and Cognitive Understanding and Regulation in education, SECURE) for pre-kindergarten through 3rd grade that is designed to build skills in social-emotional learning (focusing on executive function and self-regulation as core developmental processes) and literacy. The SECURE intervention was conceived and developed based on the need identified above, that low-income children would benefit from a deliberate multi-year approach in which intervention strategies are vertically aligned across years and developmental transitions, providing children with sequenced, consistent high quality experiences. In our presentation we will: (1) review pilots results presented at SREE in fall 2012 (and now in review) from the K-3 component of SECURE, (2) present new results from the pre-

K pilot, and (3) will discuss the process of developing and evaluating a cross-grade intervention such as this.

Purpose / Objective / Research Question / Focus of Study:

Description of the focus of the research.

The purpose of this paper is to examine and report preliminary results from a quasi-experimental pilot study of SECURE Pre-K on a set of classroom- and child-level outcomes. As noted above, we present our work in the context of findings from the K-3 pilot of SECURE, and will discuss the process of developing and evaluating a cross-grade intervention such as this, as well as the implications our work for intervention in preschool and elementary settings.

Setting:

Description of the research location.

The SECURE K-3 and SECURE Pre-K studies took place over two consecutive years (2011-2012, 2012-2013) in six public elementary schools in Phoenix, Arizona. In the SECURE Pre-K study, preschool classrooms receiving the SECURE intervention were Head Start classrooms that were co-located in elementary schools.

Population / Participants / Subjects:

Description of the participants in the study: who, how many, key features, or characteristics.

Participants in the SECURE Pre-K study were 189 children (51% boys) in twelve Head Start classrooms in Phoenix, Arizona. SECURE Pre-K classrooms were located in two of the six elementary schools participating in the larger SECURE study. Each classroom had one lead teacher and one assistant teacher. Due to the unique half-day structure of Head Start and preschool programs in the district, each teacher had a separate morning and afternoon session (i.e., there were six teachers but twelve groups of children). The vast majority of children were Hispanic/Latino; over 90% were identified as English language learners and all children were from families that met the Head Start federal poverty guidelines. Between the remaining four schools, there were 42 additional pre-K classrooms with the same a.m./p.m. structure spread between Head Start (20), AOK Tuition-Based Preschool (14), or Developmental Preschool (8). Based on the Alhambra District early childhood website, the non-Head Start programs are described in the following way. AOK Tuition-Based Preschool is a community preschool program that offers open enrollment to families who are seeking high quality preschool experiences for children who are 3-5 years of age. Developmental Preschool serves the needs of children experiencing developmental delays who require inclusion in a self-contained special education classroom. For all pre-K/preschool classrooms across the six schools, our research team was provided access to all regularly gathered administrative and accountability data including the two primary outcomes to be reported here (note, additional classroom and child-level data were also included, see below): Classroom Assessment Scoring System scores (CLASS; averaged across a.m. and p.m. for each teacher resulting in a classroom-level n of 27), and teacher reports on children using Teaching Strategies Gold ($n=750$). In addition, our research team gathered individual-level data in the fall and spring of the preschool year from each child ($n=189$) in the 12 classrooms implementing SECURE Pre-K (see below).

Intervention / Program / Practice:

Description of the intervention, program, or practice, including details of administration and duration.

Overview of SECURE Program. SECURE (Social, Emotional, and Cognitive Understanding and

Regulation in Education) is a newly-designed universal, school-based intervention that integrates executive function, self-regulation, and social-emotional skills into a high-quality language and literacy curriculum for children in grades PreK-3. SECURE is designed to support students' development of strategies that are aligned with positive classroom behavior and social-emotional health; students learn to focus their thinking, manage their behavior, build positive social relationships, and understand and deal with their feelings, in and outside of the classroom. The program consists of (1) a set of daily classroom and school-wide structures and routines that build a positive, productive and well-regulation classroom and school environment (e.g., routines to support cooperative learning and effective conflict resolution), and (2) a set of weekly classroom lessons focused on the core concepts of SECURE that promote student competencies and skills necessary for learning (e.g., active listening, paying attention, understanding feelings, resolving conflicts) and the routines described above. These lessons use interactive and engaging formats such as reading thematic children's books, "Brain Games," role plays, and art projects. SECURE provides training for all staff in the school (including specialists, lunchroom aids, gym teachers, music and art teachers, playground monitors, etc.) and on-going professional development and support structures for effective classroom and school-wide implementation.

Brief Review of SECURE K-3 Findings. In the 2011-12 school year, approximately 5000 K-3 students in Phoenix, AZ participated in a pilot study, with approximately half of those students randomized to SECURE, and half to standard practice. The participating school district serves a high concentration of families living in poverty, with ninety-two percent of students receiving free or reduced priced lunch, and thirty percent of students categorized as English language learners. Results from this study showed positive effects (effect size equal to .33) of the SECURE program on children's attention/impulsivity measured using the PSRA Assessor Report (Smith-Donald et al, 2007), which provides a global picture of children's ability to regulate emotions, attention, and behavior. We also found positive and statistically significant effects of the program on growth in both reading and math achievement (effect size equal to .11) measured with the 4Sight Benchmark Assessments given by the participating district five times over the course of the school year.

Research Design:

Description of the research design.

As described above, the SECURE Pre-K study was conducted in twelve Head Start classrooms in Phoenix, Arizona. SECURE Pre-K classrooms were located in two of the six elementary schools participating in the larger SECURE study. Due to the unique half-day structure of Head Start and preschool programs in the district, each teacher had a separate morning and afternoon session (i.e., there were six teachers but twelve groups of children). Between the remaining four schools, there were 42 additional pre-K classrooms with the same a.m./p.m. structure spread between Head Start (20), AOK Tuition-Based Preschool (14), or Developmental Preschool (8). For all pre-K/preschool classrooms across the six schools, our research team was provided access to all regularly gathered administrative and accountability data (see below). In addition, our research team gathered individual-level data in the fall and spring of the preschool year from each child ($n=189$) in the 12 classrooms implementing SECURE Pre-K (see below).

Data Collection and Analysis:

Description of the methods for collecting and analyzing data.

Data were gathered from children, their teachers, and in their classrooms over three waves in the 2012-13 academic year: fall, winter, and spring. The participating school district provided the following data for all preschool children and classrooms in the district: monthly attendance and tardy statistics, IEP status, DECA scores (Devereaux Early Childhood Assessment of social-emotional skills conducted by classroom teacher at school entry), Dial3 scores (a general developmental assessment conducted by classroom teacher at school entry), TSG information (Teaching Strategies Gold), and CLASS scores (Classroom Assessment Scoring System). TSG data were reported by lead classroom teachers for each child at three waves (fall, winter, spring) and included observations and ratings of individual children in each of six domains: cognitive, language, literacy, mathematics, social-emotional, and physical development. CLASS data were obtained via outside observers (blind to condition) who visited each classroom at least once per year to code teachers on various dimensions of classroom quality and teacher practice. CLASS dimensions include Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Student Perspective (combined into the Emotional Support Domain), Concept Development, Quality of Feedback, Language Modeling (combined into the Instructional Support Domain), Behavior Management, Productivity, and Instructional Learning Formats (combined into the Classroom Organization Domain). In addition to these data for all preschool students in the district, child direct assessments and teacher reports were completed for the twelve participating SECURE classrooms. In the fall and spring waves, a child direct assessment was conducted by trained assessors and included the following measures of executive function, self-regulation, and social-emotional competence: Pencil Tap, Challenging Situations Task, and the PSRA Assessor Report. In the spring, participating SECURE teachers completed a report on each individual child, which included items from the DECA, BITSEA (Brief Infant-Toddler Social-Emotional Assessment), and a self-regulation benchmarks measure designed specifically for the SECURE program. Researchers also conducted observations in SECURE classrooms at the winter and spring waves. These observations included completing the TSRS (Teaching Style Rating Scale) for each teacher, and a SECURE observation checklist for each classroom.

Findings / Results:

Description of the main findings with specific details.

Here we report preliminary results comparing the CLASS (classroom-level) and TSG ratings (child-level) between the 12 SECURE Pre-K classroom and the other 42 preschool classrooms spread across the 6 participating schools. It should be noted here that this study was funded as a preliminary pilot designed to provide initial exploratory evidence of feasibility and effectiveness (as is consistent with the NIH R21 and IES Goal 2 mechanisms). The results presented here are preliminary, basic, and somewhat narrowly focused. We will have completed a more comprehensive analysis prior to SREE. Using simple hierarchical regression models with classrooms nested in schools (6), we find differences favoring the SECURE Pre-K classrooms in spring of the preschool year for Emotional Support ($p < .07$, $ES = .88$) and for Classroom Organization ($p < .07$, $ES = .89$). In addition, we find differences favoring SECURE Pre-K children or the TSG social-emotional scale ($p < .01$, $ES = .72$) in spring, controlling the fall score.

Conclusions:

Description of conclusions, recommendations, and limitations based on findings.

As noted above, we present our work in the context of findings from the K-3 pilot of SECURE, and will discuss the process of developing and evaluating a cross-grade intervention such as this, as well as the implications our work for intervention in preschool and elementary settings.

Appendices

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Appendix A. References

References are to be in APA version 6 format.

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Appendix B. Tables and Figures
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