Critical Review: Evidence supporting the role of parent training programs in fostering emergent literacy skills in preschool-aged children.

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This critical review examines the effect of parental training on fostering emergent literacy skills in preschool aged children. Study designs include a randomized control trial, single group pre-test post-test design, quasi-experimental design, and case studies. Overall, research suggests successful outcomes for parental training in the development of emergent literacy skills among preschool aged children.

Introduction

Emergent literacy is defined as the skills of and knowledge in reading and writing that young children gain prior to achieving conventional literacy that provides a foundation for higher-level literacy skills. Key areas of emergent literacy attainment include phonological awareness, print concepts, and alphabet knowledge (Justice and Kaderavek, 2004). Children in preschool who experience difficulties in the development of emergent literacy skills are at risk for entering elementary school without an adequate literacy foundation (Justice and Pullen, 2003). As attainment of emergent literacy skills is essential to later achievements in reading, it is imperative that effective models of emergent literacy intervention are developed in order to decrease the likelihood of reading difficulties in school-aged children.

Early exposure to literacy both in the school environment and at home plays a vital role in the development of emergent literacy skills. Studies have shown that the home environment can have an especially profound impact on a child's development of emergent literacy (Saracho, 1997). Joint book reading with a parent may have a powerful influence on children's literacy development because it provides a rich, focused environment in which parents and their child can describe narrative events, predict the story's sequence, label items in illustrations, and share experiences relevant to the story (Ezell, Justice and Parsons, 2000).

Reading aloud with a child is particularly effective when the parent incorporates *dialogic* reading techniques into shared reading sessions. This interactive style of reading includes the use of evocative techniques to encourage the child's active participation in story telling, the use of feedback to the child in the form of expansions, corrections and praise, and progressive change to stay at or just beyond the child's current level of functioning (Huebner and Meltzoff, 2005). Whitehurst, Epstein, Angel & Payne (1994) explain that a parent's use of particular reading behaviours can have a profound influence on a child's language acquisition as well as on the child's verbal involvement in the shared reading activity. However, according to Huebner and Meltzoff (2005), parents do not typically engage in a dialogic reading style without instruction. Therefore, recent strategies for increasing children's acquisition of emergent literacy skills have focused on parent training approaches where parents are taught to increase the frequency of behaviours during shared reading that may positively contribute to their child's acquisition in literacy skills and increase his/her activity involvement. Recent studies have shown that ongoing clinic-based parental literacy interventions help to enhance parent-child "shared-reading" interactions and increase children's word knowledge (Sharif, Ozuah, Dinkevich & Mulvihill, 2003).

Objectives

The primary objective of this paper is to critically evaluate existing literature on the role of parent training in fostering emergent literacy skills in preschool-aged children. The secondary objective of this paper is to provide recommendations for future research endeavors in the area of parent training programs for emergent literacy development.

Methods

Search Strategy

Computerized databases, including ERIC Plustext, PsychINFO and Proquest were searched using the following search strategy: ((Emergent literacy) OR (dialogic reading)) AND ((parent training) OR (parent instruction)). Articles were also found using the reference section of reputable resources.

Selection Criteria

Studies selected for inclusion in this critical review paper were required to examine the impact that parental training had in fostering emergent literacy skills in their pre-school aged children. No limits were set on the demographics of research participants or outcome measures.

Data Collection

Huebner and Meltzoff (2005) employed a randomized control study to investigate the impact of three instructional methods of parental training on changing parent-child reading styles as well as the overall impact this parental training had on the emergent literacy skills of their children. Recruitment of participants yielded 109 parent-child groups from the Jefferson County area. Selection criteria included the child's ability to speak using at least two-word combinations, English as a first language, and the child had to be 2 or 3 years old. Group assignment was staged in two phases. In the first phase 95 families were randomly assigned to one of three instructional methods; 1) in person instruction with a video aimed at teaching parents to use dialogic reading (n=30), 2) self instruction with video and a telephone follow up (n=28) and 3) self instruction with video and no follow-up (n=26). In the second phase, a baseline group was formed (n=25). The baseline group was assigned to self-instruction with a telephone follow-up. This group allowed for a within-subjects pre- to post-assessment of the intervention, and provided a benchmark for baseline scores that could be used in a between-subjects evaluation of the intervention program (Hubener & Meltzoff, 2005). The goal of the parental instruction was to teach parents how to use a dialogic style of reading with their children in the home environment.

Results of this study revealed that few parents used dialogic reading strategies prior to receiving instruction. Parent-child reading during a 5-minute period was coded from audio-recordings collected at pre-test (baseline group) and at post-test following an 8-week instructional period for all instructional and baseline groups.

The main analysis performed in this study was a test of difference in parent and child reading behaviours following the instruction. The authors developed the *Dialogical Reading Ratio* (DR ratio), which computed the behaviours parents were asked to increase (numerator) and the behaviours parents were asked to decrease (denominator). Two sets of tests were conducted to evaluate parent-child reading following instruction. The first set of tests comparing changes among baseline families showed that parents in this group experienced a fourfold increase in dialogic reading behaviours after receiving instruction (DR ratio= 0.3 at pre-test, DR ratio= 1.38 at post-test). A second set of tests measured the effect of the instructional method on the DR ratio. An ANOVA of DR ratio yielded a significant effect of method of instruction with the group receiving in-person instruction showing a higher increase in DR ratio (DR= 2.67 at post-test) than the groups who received video training only (DR= 1.55 with phone follow up, DR= 1.43 with no phone follow-up). The authors note that while in-person instruction led to the highest increase in DR ratio, all instructional methods yielded significant positive results.

A second outcome measure in this study examined the children's language behaviours at pre and post-test. ANCOVA using children's post-test age as a covariate, yielded a significant increase in the average number of utterances (m=17.61 at pre-test, m=26.70 at post-test) and the average length of utterance (m=2.79 at pre-test, m=3.36 at post-test) for the baseline group.

The results of this study revealed highly positive change among parent-child reading behaviours following instruction. A large sample size, randomization of subjects within the instructional groups as well as the use of a baseline group are key elements of this study. A strength of this study is that participants varied in terms of level of parental education as well as family income. However, as the sample was predominately of Caucasian families, a follow-up study including families from different cultural backgrounds would be beneficial. The authors also measured the effects of different instructional methods which is a relative strength as this provides numerous gateways to providing early intervention and prevention of reading difficulties. This study shows how programs such as dialogic reading instruction can reach parents directly and could be a step in testing whether such a program could be taken to scale as a universal preventive intervention.

Sharif et al., (2003) examined the impact of a series of four parent workshops focusing on skills used in reading to children to improve the literacy skills of their preschoolers. The recruitment of participants (n=49) occurred at a day care center in New York, where all parents of children in the pre-K class were asked to participate. The outcome measure of this pre-post case series design was the children's receptive vocabulary, as an indicator of pre-reading skills (using the Peabody Picture Vocabulary Test-Revised). Pre-test scores taken before the parents

attended four weekly 1-hour workshops showed a mean standard score equivalent (SSE) of 73.65. Following intervention, the mean SSE score significantly increased to 80.15 ($p < .001$). To eliminate familiarity with the test, alternate forms were used at pre- and post-test that have been validated as containing equivalent but different test items (test-re-test coefficient of 0.79).

One strength of this study, is that the authors used a standardized measurement (PPVT-R) for the outcome measure. They explain that the PPVT-R was used as an indicator of pre-reading skills as it is a standardized and validated measure that has been used extensively to evaluate the impact of literacy intervention and holds concurrent and predictive validity with school achievement tests. While results of this study suggest that parental training has a positive outcome on the literacy development of young children, the absence of a comparison group in this study limits the ability to attribute a causal relationship between the intervention and the increase in vocabulary scores. With that being said, the average increase of 8.6 points exceeds what would be expected by normal maturation. The authors explain that the increase in SSE scores expected by normal maturation is about 4.5 points as cited in the PPVT-R manual. The authors also point out that no other special literacy-related activities were being carried out simultaneously at the day care center which could have accounted for an increase in vocabulary scores.

Justice and Ezell (2000) examined the efficacy of a book reading intervention program for enhancing parents' use of print referencing behaviours and for fostering children's emergent literacy skills in the areas of print and word awareness. Selection criteria for parent- child dyads (n=28) included English as a first language, the child's passing of an audiological screen, and the child's minimum standard score of 85 on both the PPVT and Expressive One Word Picture Vocabulary Test. A control group was matched for parent's educational level and child's receptive language ability. The investigation, based on a pretest-posttest control group research design, consisted of parental training of the experimental group in the use of print-referencing behaviours during parent-child shared reading. Analyses were conducted to examine the effects of training on parental reading behaviours and the extent to which parental use of print-referencing behaviours influenced emergent literacy skills in their children.

ANOVA was conducted to examine changes in the rate of dialogic reading behaviours between the experimental and control groups. A significant ($p=0.000$) increase in all 5 targeted print referencing behaviours (comments, requests, questions, tracking and pointing) was found. Using ANOVA, significant groups differences in post-test gain were found in emergent literacy skills for 3 of the 5 subtests (words in print ($p=0.007$), print concepts ($p=0.016$) and word segmentation ($p=.050$)). No significant differences were found in the areas of alphabet knowledge ($p=.821$) or print recognition ($p=.133$).

While this study shows a positive outcome in parental training on fostering emergent literacy skills in preschool aged children, an equivocal study among clinical populations would be beneficial as all dyads in this investigation included typically developing children. Also, as participating parents volunteered to take part in this research study, they may have already been interested in storybook reading or aware of the potential benefits of shared reading. Further investigation involving families who engage in fewer home literacy activities may show different effects of parental training.

Saracho (1997) examined the experiences in home literacy in families (n=15) who participated in a parent program. Fifteen families with kindergarten children attending a school in the Southwestern United States volunteered to participate in the study. This group case study used comprehensive observations and periodic interviews with parents, children, and teachers to determine if a parent literacy program would contribute to greater literacy development among children. During the literacy program, parents were taught to 1) provide literacy materials in the home, 2) interact with their children during literacy related activities, and 3) provide a home environment that promotes literacy. Major findings in this study indicate that parents implemented skills learned in the parent program in the home environment.

Limitations of this study include the lack of data provided to show results of aforementioned parent programming. While parental questionnaires and videotaped reading sessions yielded positive results in the parents' efforts to increase literacy development in their children; pretest/posttest scores of the children's abilities were not included in this study. A second limitation, similar to the aforementioned study by Justice and Ezell (2000), is that families volunteered to be a part of this study and therefore may have already had a particular interest in expanding literacy activities in the home environment. A follow up study examining the longitudinal effects of parent intervention on literacy

development is needed in order to show whether this particular parent programming was successful at increasing emergent literacy development of preschool aged children.

zell et al. (2000) performed a pilot study to investigate the efficacy of a parent-child book-reading program on enhancing the literacy skills of preschool children with communication disorders. Four families were recruited through the University of Ohio's Speech and Hearing Clinic. Children's pre- and post-test emergent literacy skills were assessed through determining their print concepts and their expressive and receptive alphabet knowledge. An informal measure of the Children's Concepts about Print and Book Reading (CPBR) yielded a pre-test score of 2.5 (out of a possible 15). Following a 5-week program which included group parent training and individualized guided reading sessions, post-test results of the CPBR yielded a score of 6.25. There was no significant change in alphabet knowledge following the parent program.

While this study is beneficial in showing the positive effects of parental training on the literacy development of children with communication disorders, there are notable limitations. The small sample size (n=4) affects the external validity of this study as well as the fact that the participants were self-selected and therefore may have been particularly interested in their children's exposure and participation in literacy activities. Finally the measures used to assess the emergent literacy skills in the children were not standardized protocols, suggesting more research is needed to develop formal measures for the assessment of emergent literacy behaviours.

Recommendations

Based on theory and evidence presented, parental training and instruction can have a positive effect on emergent literacy skills in preschool aged children. Specifically, Huebner & Meltzoff (2005) show that regardless of instructional type of dialogic reading behaviours (in-person training or by video), parents can have a positive effect on the literacy development in their children. The aforementioned study provides a step in the direction of testing whether a universal dialogic reading program can be used as a preventative measure of reading difficulties. As the home environment and parental involvement plays a vital role in children's emergent literacy development, further studies showing whether parental training programs help to increase emergent literacy development would be beneficial in making training in dialogic reading skills accessible to all families. In order to implement a universal program in the development of emergent literacy skills and prevention of later reading difficulties, analysis must be done on the cost effectiveness, interest and accessibility of such programs. Also, research to examine the long-term effectiveness of parental instruction upon children's later reading abilities is an important next step in this area of inquiry.

While the majority of the studies suggest positive change in emergent literacy development following parental instruction, a lack of standardized measures in assessing literacy skills makes it difficult to draw conclusions. Further, limitations that should be addressed for future research endeavors include small sample sizes and homogeneity of populations studied. Broadening research focus to include other cultural groups including bilingual families and those with English as a second language, would help to generalize results to other populations making universal programming a possibility.

Conclusions

The attainment of emergent literacy skills during the preschool years is essential to later achievements in reading. It is important that effective models of emergent literacy intervention are developed in order to decrease the likelihood of reading difficulties in the school-aged population. Research has shown that the home environment and parent involvement in reading has a powerful influence on the attainment of skills such as phonological awareness, print concepts, and alphabet knowledge. This paper examined research concerning the outcomes of parental training programs. The research suggests successful outcomes of parental training in fostering emergent literacy skills in preschool-aged children. Continuous research in parental training programs focusing on larger sample sizes and diverse populations could have a positive influence in literacy development and may lead to universal programs that could help prevent reading difficulties in today's children.

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