ELSEVIER

Early Childhood Research Quarterly 21 (2006) 46–60

Early Childhood Research Quarterly

Evaluation of an early childhood preschool program in rural Bangladesh

Frances E. Aboud *

Department of Psychology, 1205 Dr. Penfield Avenue, McGill University, Montreal, Canada H3A 1B1

Abstract

A preschool program in rural Bangladesh was evaluated in terms of cognitive and social outcomes of children. The preschools provided a half-day program, 6 days a week, with free play, stories, and instruction in literacy and math. Four hundred children between 4.5 and 6.5 years were assessed, half in preschools and half in villages where there were no preschools. After controlling the differences in child's age, nutritional status, mother's education, and assets: preschool children performed better than the comparison children on measures of vocabulary, verbal reasoning, nonverbal reasoning, and school readiness. On some indicators of social development during play, preschool children performed better, though not on the cognitive aspects of play. They were less likely to be stunted but did not differ on most other health variables. The mean quality score from the ECERS-R was 3.5, and this correlated with the group averages of verbal and nonverbal reasoning. Results were discussed in terms of implementing a high-quality program in rural sites of developing countries, where there was a mix of play and teacher-directed instruction.

Keywords: Preschool; WPPSI; Play; ECERS; School readiness; Bangladesh

Preschool programs for children from high-risk families have become a priority in developing countries (Myers, 1995). The main purpose is to prepare young children for school, in contexts, where the early home environment does not do so adequately. Bangladesh has made efforts in the past decade to enhance primary school enrolment, particularly among girls. Consequently, over 80% of eligible children were enrolled. Nonetheless, many were dropouts or were absent due to illness; only 30% of children were able to demonstrate the required competencies at the end of fifth grade (Bangladesh Education Sector Review Report No. 1, 2002). This has raised questions about the quality of primary school education and the readiness of the school children. As a consequence, international and non-governmental organizations have begun to design and implement early childhood programs, with community participation. The effectiveness of these programs are important at this early stage, because they will be used as models by others as the interest expands. This study evaluated one program for children of 4–6 years (called pre-primary or kindergarten in some countries), being implemented by an organization, namely Plan Bangladesh, with rural grassroots involvement.

Many different models have been described, including Head Start in the United States, a British model with literacy and math instruction (Siraj-Blatchford, Sylva, Muttock, Gilden, & Bell, 2002), and the Integrated Child Development Service in India (see Boocock & Larner, 1998 and other chapters in this edited book; World Bank, 2003). These models generally espouse developmentally appropriate practices, such as, learning through self-directed activities and listening to stories, but differ according to the cultural setting, curriculum, method of instruction, and characteristics

* Tel.: +1 514 398 6099; fax: +1 514 398 4896.
E-mail address: frances.aboud@mcgill.ca.

0885-2006/$ – see front matter © 2006 Elsevier Inc. All rights reserved.
doi:10.1016/j.ecresq.2006.01.008

of the children (Brooks-Gunn, 2003; Fischel, Bracken, Fuchs-Eisenberg, Spira, Katz, & Shaller, 2005; Schweinhart, Weikart, & Larner, 1986; Stipek & Byler, 2004). In Bangladesh, where malnutrition is high and parent education low (UNICEF, 2005), the need is for stimulating materials and activities that foster cognitive and language development, and provide instruction in literacy and numeracy. Although the norm is that mothers remain at home, they see their role as protecting the child from illness and injury, rather than encouraging play and conversation (UNICEF, 2001). Most mothers say they are too busy to talk with their child while working. Furthermore, children's play materials are not sold in village markets, so they are homemade. One study found that only 30% of 3-year-old rural children had a play material with at least two pieces (e.g., 2 blocks or a block and a shaped hole); only 15% talked with their mother about pictures (Aboud, 2004). Children had little exposure to books and none to television. Consequently, children have little opportunity to play with complex materials, engage in responsive conversation, or access reading or writing materials before entering first grade.

The need for early childhood education has also been expressed by poor rural parents. Over one million under-age children are reported to have arrived at government schools with their older siblings (Bangladesh Education Sector Review Report No. 1, 2002), yet there are no educational activities for them. Non-governmental organizations have therefore worked with communities, over the past 5 years, to develop and implement low cost half-day programs for children from 3 to 6 years. The curriculum of preschools evaluated here is typical of those used in Bangladesh (Plan Bangladesh, 2002). The objectives are to develop skills related to the learning process (e.g., vocabulary and reasoning), a positive attitude toward learning through a child-friendly approach, individual learning styles through play, and literacy and math preparation for primary school. Outlined in the curriculum are skills related to language (e.g., read and write letters, numbers up to 20, story comprehension), cognition (e.g., math concepts, logical thought, problem solving), and social/emotional development (e.g., sharing and turn-taking during games and play, knowing customs, following rules), and an awareness of the environment (e.g., recognizing and naming fish, flowers, parts of a tree, and dangerous places). Although initially child-initiated free play and structured group games and rhymes predominated, more teacher-directed instruction (45% of the time spent in literacy and math) was introduced to fit the demands of parents, the proclivities of para-professional preschool teachers, and the didactic mode used in primary schools (cf. Prochner, 2002, in India). With sustainability an issue, communities provide the preschool space, recruit the would-be teacher, and create the play materials, while the organization provides technical assistance by training and supervising the teacher and distributing instructional materials. Parents pay a nominal monthly fee, if they can.

Few preschool models in developing countries have been evaluated (Boocock & Larner, 1998). Those in Botswana, India, Colombia, and Thailand appear to show some benefits in terms of later primary school achievement and reduced dropouts, when compared with children in adjacent villages who did not attend preschool (Taiwo & Tyolo, 2002; World Health Organization, 1999). The Turkish Early Enrichment Project found higher IQ scores and reasoning among preschool children compared to those in custodial care or at home, and better primary school performances among preschool children, whose mothers also received literacy material and frequent training in how to stimulate their children (Kagitcibasi, Sunar, & Bekman, 2001). In this sense, the findings confirm those from northern countries (e.g., NICHD, 2000), namely that preschool experience enhances cognitive and language development, and school readiness. However, such studies have not been conducted in poor rural areas where mothers are less literate. Thus, one goal of the study was to evaluate the cognitive, language, and school readiness skills of children who had attended preschool for 10 months, in comparison with children in nearby villages, who had no access to preschool. Because the preschool curriculum emphasized long-term learning skills such as vocabulary and reasoning, as well as school readiness in literacy and numeracy, we measured these. The former are usually assessed with international instruments that provide comparability with other systems, and the latter are assessed with local tests that mirror the government curriculum (Kagitcibasi et al., 2001). The argument for including both is strengthened if they demonstrate some but not complete overlap. The hypotheses were that preschool children would perform better than non-preschool children on measures of vocabulary, verbal and non-verbal reasoning, and school readiness skills.

A second goal concerns the social development of preschool children. Measures of social development, when included in such evaluations, concern social competence such as self-control, initiative and peer interaction, or socio-emotional problems (Hirsh-Pasek, Kochanoff, Newcombe, & de Villiers, 2005). In this setting, the emphasis was on encouraging children to make choices of friends and play activities, converse freely, and coordinate with peers. Teacher-completed inventories would have been too demanding. Our measure of social behavior was therefore based on a theoretical framework that views play as an appropriate context for the development of peer-related social skills (Rubin, Fein, & Vandenberg, 1983). Levels of social participation with peers (solitary, parallel, and interactive) are