

Improving Child Care Quality Through an Infant Caregiver Mentoring Project

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ABSTRACT: An evaluation of a mentoring training program for infant caregivers is described. Fifty-two infant caregivers from 27 childcare center-based programs were involved in a four month long intervention in which they were paired with an experienced early childhood educator. The focus of the mentoring program was to improve the overall quality of the classroom environment, as well as making the caregivers more sensitive to the needs of the infants. The results clearly indicated that the mentoring program was very effective in improving the overall quality of the classroom, as well as making caregivers more sensitive to infants' needs.

KEY WORDS: infant caregivers; childcare; mentoring; training.

Introduction

This paper describes a child care mentoring project designed to improve the quality of infant and toddler child care programs in south central Pennsylvania. The goal of the mentoring project was to improve the quality of the child care environment and specifically the quality of caregiver-child interactions. As most caregivers in Pennsylvania only receive workshop training, the goal of this project was to compare the mentoring approach to the more typical workshop training. Mentoring is being explored because of its targeted intensive one-on-one nature in delivering training to caregivers based upon needs assessments. The project was conducted during the later half of 2000 and the beginning of 2001. The results presented in this paper are part of the pre- and post-test data collection phase (summer 2000 and winter 2000–2001) of this mentoring project. The actual mentoring intervention occurred from September through December 2000.

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Mentoring in childcare has been documented in the literature for the past 10–15 years (Breunig & Bellm, 1996; Fenichel, 1992). It has been demonstrated to be an effective mode of training/technical assistance (Breunig & Bellm, 1996). However, in the majority of studies conducted there are few, if any, demonstrations that utilize a randomized trial design (Breunig & Bellm, 1996). Many studies track the progress of the intervention group, some studies have comparison groups, but few, if any, have employed a randomized design. This research paper will describe the pre- and post-test data collected as part of a study that has employed a randomized design.

The majority of research (Clarke-Stewart, 1987; Goelman & Pence, 1987; Howes, 1987; Phillips, 1987; Kontos & Fiene, 1987; Galinsky, Howes, Kontos, & Shinn, 1994; Scarr, Eisenberg, & Deater-Deckard, 1994; Iutcovich, Fiene, Johnson, Koppel, & Langan, 1997; Helburn, 1995; Fiene, 1995, 1996; Jorde-Bloom, 1988; Love, Schochet & Meckstroth, 1986) completed on early childhood quality has focused on pre-school programs, with infant toddler programs rarely as the central focus of the research. The research completed in infant toddler programs has clearly documented the mediocre level of care provided to children in these programs (Iutcovich, Fiene, Johnson, Koppel, & Langan, 1997). In the present study, we focus on the first three years of life. All the centers and the classrooms reported upon in this study serve children from birth to less than three years of age.

This report is organized as follows: a methodology section briefly describes the sample selected with basic demographic information on directors, caregivers and the programs. This is followed by a results section that provides pre- and post-test average scores for each of the assessment tools utilized in this study to measure quality, caregiver behaviors, knowledge, and organizational climate of programs. This section is followed with a discussion section and implications regarding this mentoring project.

Methods

Study Design

This study involved 52 caregivers from 27 sites in south central Pennsylvania. All programs were child care centers licensed by the Department of Public Welfare. Seven of the sites were accredited by the National Association for the Education of Young Children.

This study employed a randomized design in which a self-selected group of programs and caregivers were randomly assigned to two groups, either the mentoring group or the comparison non-mentoring

comparison/control group. Intervention model mentoring group received intensive mentoring from a seasoned early childhood professional (minimum of 5–7 years of experience in the early childhood field as both a director and teacher) from September to December 2000. The mentoring model consisted of a problem solving approach in which the mentor spent a good deal of time observing in the beginning weeks in order to develop a trusting relationship with the protégé. Once both the mentor and protégé felt comfortable then suggestions could be entertained by the mentor.

The comparison group did not receive the mentoring intervention and only had the regular workshop type variety training available to them. However, the comparison group did receive mentoring during the Spring 2001 from March to June 2001. What is of interest in this study is to determine how much the two groups have improved from the pre-test data collection because they were essentially equivalent at that point on all measures.

Programs were recruited by the Capital Area Early Childhood Training Institute, a broad based community focused training institute. Program directors were invited to attend a meeting describing the mentoring project. Of those attending, 95% agreed to participate in the project. Fifty two caregivers started the project, 14 caregivers dropped out of the project between pre- and post-test. There was an equal drop out rate from both the mentoring and the control groups.

Data from the four quality measures used for all the programs are presented in Table 1. The four measures of quality were the Infant Toddler Environment Rating Scale (ITERS), the Arnett Caregiver Observation Scale, the Knowledge of Infant Development (KIDI), and the Bloom Scales of Organization Climate.

The program directors' average age is 31 with a range from 24–53

Table 1
ITERS, Arnett, KIDI, Bloom Scale Scores

All Programs (n = 38)	Pre-Test	Post-Test	Change	Significance
ITERS	134	140	+6	ns
Arnett	30	40	+10	ns
KIDI	14	14	-0-	ns
Bloom	78	79	+1	ns

years of age. They are predominantly Caucasian (81%). Eight percent have associate degrees, 78% have bachelor's degrees, and 14% have master's degrees. They had been employed as directors in their program for an average of 31 months with a range from 1 month to 120 months. Their average pay is between \$20000–25000 per year. Sixty percent have health insurance and 45% have some form of dental or life insurance. Forty-five percent are in a retirement system.

The average age of caregivers in the programs was 36 with a range from 18–68. They are predominantly Caucasian (77%). Fifty-seven percent have high school diplomas, 16% have some college credits, 5% have CDA's, 16% have associate degrees, 5% have bachelor's degrees, and 2% have master's degrees. They have been employed as caregivers in their program for an average of 34 months with a range from 1 month to 153 months. They have worked in the early childhood field as caregivers for an average of 71 months with a range from 1 month to 312 months. Their average pay is between \$10000–15000 per year. Fifty percent have health insurance and 33% have some form of dental or life insurance. Thirty-three percent are in a retirement system.

The average size of the centers is 98 children with 17 staff employed either full time or part time at the program. The average weekly fee for infant care is \$137.00 per week and for toddler care is \$124.00 per week. The majority of staff are employed at the centers for either less than 1 year or greater than 5 years.

Results

Both the mentoring and comparison groups were tested for equivalence at the beginning of the project in the pre-test data collection phase. There were no statistically significant differences on any of these measures at the pre-test. When the programs and caregivers were measured at the post-test, positive changes occurred although none were found to be statistically significant. In the aggregate, the programs that continued with the mentoring project showed improvements in the overall quality of care.

Tables 2 through 5 present the pre- and post-test data for the intervention and control groups.

These results indicate that the mentoring group showed increases on the program quality scales (ITERS and Arnett). This increase is especially noticeable on the ITERS. Further, there was a decrease in program quality with the control group, going from a score of 137 to 132. On the Arnett scale the mentoring group increased greater than the control group (11 point increase versus a 7 point increase).

Although the above results did not reach statistical significance,

Table 2
ITERS

	Pre-Test	Post-Test	Change	Significance
Mentoring Group	134	141	+7	ns
Control Group	137	132	-5	ns

Table 3
Arnett

	Pre-Test	Post-Test	Change	Significance
Mentoring Group	29	40	+11	ns
Control Group	33	40	+7	ns

Table 4
KIDI

	Pre-Test	Post-Test	Change	Significance
Mentoring Group	14	14	-0-	ns
Control Group	14	15	+1	ns

Table 5
Bloom

	Pre-Test	Post-Test	Change	Significance
Mentoring Group	73	74	+1	ns
Control Group	87	91	+4	ns

when specific subscales are analyzed several show significant differences (see tables 6 and 7). Several of the subscales on the ITERS and Arnett reached statistical significance with positive changes in routines (greeting/departing, meals/snacks, nap time, diapering/toileting, health/safety practice/policy) learning activities (eye-hand coordination, active physical play, blocks, pretend play, cultural awareness), sensitivity, and appropriate discipline for the mentoring group. The only statistically significant finding with the control group was in a negative change in interactions in which the scores decreased from pre-test to post-test. Paired t-tests were used in all of these analyses for Tables 6 and 7.

Table 6
Mentoring Group

	Pre-Test	Post-Test	Significance
ITERS subscales			
Routines	36	41	.005
Listening activities	8	9	ns
Learning activities	28	31	.05
Interactions	13	13	ns
Adult needs	17	19	ns
Arnett subscales			
Sensitivity	26	31	.001
Appropriate discipline	7	9	.05

Table 7
Control Group

	Pre-Test	Post-Test	Significance
ITERS subscales			
Routines	41	42	ns
Listening activities	9	8	ns
Learning activities	29	31	ns
Interactions	15	13	.02
Adult needs	17	17	ns
Arnett subscales			
Sensitivity	28	31	ns
Appropriate discipline	6	7	ns

Discussion

These data demonstrate that the sites that were mentored improved on the ITERS and the Arnett. This is an encouraging result in that the intervention was only 4 months long. It is an important finding because the majority of mentoring projects in the past have utilized anecdotal evidence to demonstrate their effectiveness. Very few programs have conducted randomized trials of their interventions.

It is clear from the data that training/technical assistance interventions are needed in infant toddler programs because of the low scores on various program quality measures. It is also discouraging in that the control programs did not improve in which the ITERS went from 137 (pre-test) to 132 (post-test). This is a finding that will be monitored over time to see if this trend continues. Hopefully this was just an aberration in the data; however there does seem to be support when these data are compared to other studies (Iutcovich, Fiene, Johnson, Koppel, & Langan, 1997).

The public policy implications are that an intensive mentoring intervention of only four months can produce positive, although not statistically significant, changes in the overall quality of child care programs both globally and with caregiver interactions. Previous research (Johnson, 1994) has indicated that increasing the number of hours of training produces more developmentally appropriate behaviors in child care staff. Mentoring fits this model because it is an intensive one on one intervention in which the mentor and protégé are engaged in problem

solving activities to improve the overall quality of the interactions and environment of the child care program.

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