Introduction

The only public policy designed to maintain quality control in child care consists of each state's licensing regulations. It is assumed that when child care programs comply with licensing regulations, they meet a level of quality that will, at the very least, not hamper the development of young children (Fine & Nison, 1981). Variation in regulatable characteristics of child care is related to differences in child development, including individual children's experiences. Little research has been done to determine how regulatable aspects of child care (those aspects of quality that enter into licensing criteria) relate to measures of quality determined by standards of the child care profession. Specific information is needed regarding how much children's development is influenced by differences in regulatable characteristics of child care after all other relevant variables have been taken into account. Information of this nature will help determine which regulatable characteristics of centers are most critical to quality as it is defined by professional criteria and observed in child development outcomes.

A unique opportunity to obtain data across the state of Pennsylvania, where the Office of Children, Youth and Families (OCYF) was working with several related licensing issues. Pennsylvania implemented an instrument-based program monitoring system to determine the level of center compliance to licensing regulations. The average center in the state was in compliance with 97% of the regulations (Fine, 1986). Most centers, therefore, met the basic floor of quality.

In Pennsylvania, child care centers are required to apply to and be accepted by the state as licensed vendors of subsidized child care slots. The state had no way to objectively discriminate among the quality services provided by centers. Thus, OCYF sought data to help pinpoint key indicators from individual regulatable center characteristics by determining how well these characteristics predict child development outcomes, licensing compliance scores, and an environment quality score as defined by early childhood professionals. This study was conducted in collaboration with OCYF because they planned to use the data to publicize pertaining to child care regulations and funding.

Methods

Of the 40 centers selected as representative of the 350 centers in the northeastern region of Pennsylvania, only 25 randomly selected centers volunteered while 10 centers actually participated in this study. A random sample of 50 children attending each center was randomly selected. Children consisted of 5 urban/non-3, 8 urban/profit, 14 suburban/profit, and one non-profit. Child care directors provided a list of all staff for 4, 5, and 5-year-old children who attended the center full-time (more than 20 hours per week) for at least six months. These 100 randomly selected children were divided by gender (53 males and 47 females), and from all socioeconomic levels. Compliance with licensing regulations in Pennsylvania is monitored through an instrument-based system.

The Child Development Program Evaluation (CDPE) is comprised of the following seven subscales: program administration, environmental safety, child development program and curriculum, staff training and involvement, and transportation. Each item on the CDPE was empirically given a weight (translated into points) on ratings of the level of risk to children's health and safety if the center is out of compliance (see Fine & Nison, 1981).

The second measure of quality involving compliance to licensing regulations was the percent of items passed on the CDPE Indicator Checklist (CDPE-IC). The CDPE-IC is a 15-item scale comprised of the best predictors of the CDPE from the full scale (Fine & Nison, 1985). The Early Childhood Environment Rating Scales (ECERS) (Hamis & Clifford, 1986) was administered at each center by one of the three-member research team. The team focused on seven areas of quality (personal care routines, furnishing and display, language and reasoning experiences, creative activities, fine and gross motor activities, social development, adult needs).

Results

Table 1 presents means, standard deviations, and ranges for each variable included in the analyses. According to scores on the full CDPE, only six centers qualified to be fully licensed, three could be provisionally licensed, and one would be denied a license. Out of the seven individual center characteristics, four predicted caregiver behavior (COFAS) and two the total CDPE, and three ECERS.

The individual center characteristics were most strongly related to caregiver behavior both in number and strength of correlations. Capacity, group size, and ratio were the structural characteristics most consistently related to any aspect of quality. Interestingly, and contrary to findings in other studies, group size was positively related to quality.

The correlation of variables in quality and characteristics to children's development was measured in two ways. Center characteristics and quality measures most consistently predicted language development as measured by the CDPE. The correlations were confounded with children's ages, family background, and child care experience. The subsequent set of analyses attempted to control for the effects of these variables in order to obtain a clearer picture of how children's development is affected by individual center characteristics and quality. Capacity, group size, and ratio were the structural characteristics most consistently related to any aspect of quality.

Discussion

The results suggest that family background is the most salient determinant of development in children attending day care centers whose quality varies from adequate to good. The strength of family background as a predictor in and of itself ought not to come as a surprise since it is a well known phenomenon. Results are consistent with a major study of public school quality and children's cognitive development and educational attainment (Jencks, 1972). In this study, family background explained half of the variance in children's educational attainment while school quality added little or nothing to predictions of cognitive development or educational attainment.

The implication may be that when child care quality ranges from adequate to good the differential effects of quality are non-existent. When the lower range of quality drops below adequate, the differential effects may become salient due to detrimental effects of low quality care on children's development. This is not consistent with Vandell and Powers' (1985) data that showed medium quality centers were more like low quality than high quality centers. They were using floor of quality measures and not professional standards. Being at a moderate level with respect to the floor of quality may indeed have different implications for children's development than being moderate in quality using professional standards.

Looking at the individual center characteristics in isolation, we found that capacity, group size, and ratio were most frequently related to quality ratings. Consistent with the National Day Care Study (Pruopp, 1979), group size was positively related to quality. On the other hand, the negative relationship between caregiver child ratio and quality is consistent with the National Day Care Study finding. Consistent with the findings of Howes and Rubenstein (1985) and Vandell and Powers (1983), staff characteristics (turnover, ratio, director's experience, and average staff experience) predicted caregiver behavior (as measured by the COFAS).

The results clearly show that individual center characteristics were much more powerful as predictors of children's development when they were included in the studies. The characteristics of explained more than 10% of the variance in several measures of development and in two instances explained 5 to 10% of the variance. These two were statistically significant predictors. The typical range of regulated center characteristics in Pennsylvania or any other state is unknown. Another line of reasoning suggests that researchers have yet to determine at what point an effect can be said to have a substantive impact on development, even if we fail to find significant relationships with each measure. Research that shows that sufficient variance remains unexplained by previous research, one thing that these data tell us is how far we have to go in understanding how variations in child care environments affect children's development. Each state has variations in licensing regulations and monitoring, demographic variables related to families and communities. This study contributes to the knowledge base by showing how, within the confines of the measures used and the sample of families and centers, the family background contributes more to variation in children's development than center quality or individual center characteristics.