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Insights for directors on national research on staff training

The Relationship Between Staff Education and Training and Quality in Child Care Programs

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It is clear that there is a strong relation between the education and training of the workforce and quality of services.
— Cost, Quality, and Child Outcomes Study Team, 1995

The above statement provokes a number of challenging questions: What is really meant by education? What is really meant by training? Which dimensions of training and education are most related to quality? How should we use scarce resources to support staff most effectively?

This article seeks to answer these questions by first summarizing findings from several large-scale national studies and, second, by drawing on the findings to make recommendations for policy and practice. The overall objective of this article is to provide child care directors and staff with the critical information to provide better quality care for our nation's children.

Overview of Studies Reviewing

This article will compare three national child care studies: (1) the National Day Care Study (NDCS) which investigated the quality and cost of child care centers for preschool children, toddlers, and infants in 1975-1977 (Ruopp, Travers, Glantz, and Coelen, 1979); (2) the National Child Care Staffing Study (NCCSS) which explored how staff characteristics and working conditions influenced the quality of center-based child care in 1988 (Whitebook, Howes, and Phillips, 1989); and (3) the Cost, Quality, and Child Outcomes Study (CQCO) which examined the relationships among the cost of child care, its quality, and its concurrent effects on children in centers in 1993 (Cost, Quality, and Child Outcomes Study Team, 1995).

Limitations of a Cross-Study Comparison

Any analysis comparing three different studies, while interesting and ultimately informative, faces inherent challenges. First, there is a lack of data comparability because each study examined different variables and used different instruments in data collection. Second, because the studies were conducted over a span of almost three decades, it is difficult to determine if different findings should be attributed to changes that have occurred in child care settings over time or to differences in research instruments and methodology. Third, and perhaps most importantly, the vocabulary used to report on education and training variables differs in meaning among the three studies.*

Addressing Definitional Limitations

For the purposes of consistency and clarity, we propose consistent definitions for two elements of staff professional background — education and training— based on the three national child care studies.

We are using the following definitions for this article:

• **General education.** Coursework at the high school, vocational, college, or graduate level *not* specifically related to ECE or similar fields of specialization.

• **ECE-related training/education.** Any ECE-related preparation

(sometimes referred to as pre-service training) for work in a child care center at the secondary, vocational, college, or graduate level, and including CDA and similar credentialing programs in child-related fields (i.e., developmental psychology, day care, early childhood education, or special education).

• **In-service training.** Any ECE-related instruction received while concurrently working at a child care or preschool program.

It should be noted, however, that since not all of the studies used this or any single categorization schema, there will be some gaps in the information reported below. Yet, given the different definitions, this approach seems to be the most clear.

Research Findings

General Education

The NDCS highlighted the comparative unimportance of the amount of general education to caregiver or child behavior in preschool settings. Test scores of preschool children studied did not rise as a result of an increase in the number of years of education completed by the staff. For infant/toddler care, however, the NDCS did find that the number of years of staff general education was positively correlated to social interaction, cognitive language stimulation, and conversation among adults, and to lower ratings of child apathy and potential danger for the infants/toddlers.

In contrast, the NCCSS obtained different findings and reported that in all age classrooms caregivers' level of general education was the strongest predictor of appropriate caregiving. The level of general education best predicted more sensitive, less harsh, and less detached behavior by teachers in all classrooms. How much of this general education is necessary to produce better outcomes for children? The NCCSS found that caregivers with at least a bachelor's degree provided more sensitive, less harsh and detached, and more appropriate care than those with lower levels of general education. However, it should be noted that these results may be confounded by other variables.
The CQCO analysis found, like the NCCSS, that high levels of general education were important. Specifically, it noted that higher quality centers had a higher proportion of staff with at least a bachelor's degree. By increasing the composition of the staff with a bachelor's degree or higher from one third to all, the quality of the center improved by .3 points (on a scale of 1 to 7).

ECE-Related Training/Education

The NDCS identified ECE-related training/education, as opposed to general education, as the key ingredient for more appropriate caregiving in child care or preschool settings. Lead teachers with *any* ECE training/education engaged in social interaction such as questioning, instructing, responding, praising, comforting with children in their care 28% more often than did caregivers without this training.

In addition, children in classrooms with ECE trained/educated teachers demonstrated longer attention spans, more cooperative and compliant behavior, and more involvement in activities than children in other classrooms.

As the proportion of classroom staff with ECE training/education increased from none to all, the children's Preschool Inventory (PSI) scores increased by 25%. ECE-related training/education, regardless of general education, best predicted higher quality care and education of young children including better classroom process and higher test scores; these results were particularly strong in centers serving low-income children.

By contrast, the NCCSS did not label ECE-related education/training as a strong predictor of teacher behavior in preschool classrooms, but it did note that ECE-related education/training at the post-secondary level proved to be more effective than at the high school or vocational level. Overall, in the NCCSS, caregivers with either a general bachelor's degree *or* college-level ECE-related training/education were associated with higher quality caregiving, including more sensitive teacher-child interactions.

With regard to infant and toddler teachers, the NCCSS concluded that high levels of ECE-related training/education provided caregivers with the knowledge required to understand and respond to the unique, rapid, and episodic development of infants and toddlers.

The CQCO study reported the impact of ECE-related training/education and general education on program quality as a combined effect. Higher levels of general education *or* ECE-related education/training were associated with higher quality. Classrooms with teachers in background 3 were higher in process quality than classrooms staffed by teachers in background 2 which, in turn, were stronger than classroom staffed by teachers in background 1.

Predictably, among staff members with lower levels of ECE-related training/education (i.e., only a CDA), and correspondingly low levels of general education, specialized training did not significantly affect quality.

In-Service Training

Although only a quarter of the NCCSS sample had participated in 15 hours or more of in-service training per year, these teachers were more sensitive, less harsh, and less detached and more likely to provide more appropriate caregiving than teachers with less than 15 hours of in-service training. Neither the NDCS nor the CQCO reported on the importance of in-service training to program quality as a separate variable, but both included this form of training in summary measures for ECE-related education/training. In-service training in these two studies can only be analyzed as one ingredient in the ECE-related background of some caregivers, the *overall* impact of which was discussed in the previous section.

Interaction of Levels of Specialized and General Education

What all the studies did demonstrate is that it is difficult to attribute more appropriate caregiver behavior to just one aspect of professional background. For example, although the NCCSS supported formal education at the college level over other predictors of quality, the study acknowledged that formal education and specialized training are often correlated inputs.

In investigating whether levels of specialized and general education/training were linked, the NCCSS determined that teachers with more general education also had completed higher levels of ECE-related training/education. In fact, 63% of staff members with a bachelor's degree had either completed coursework or graduated from a post-secondary ECE-related program. Likewise, the CQCO study found measures of staff general and ECE-related education/training to be greatly linked, to the point that, particularly at higher levels of general education, it was difficult to distinguish between "the relative importance of formal education in general and early childhood training specifically" (CQCO, p. 283).

In all three background levels, the majority of the teaching staff had some ECE-related training/education. In fact, 97% of staff at background levels 2 and 3 had completed some ECE training. Even at background level 1 (high school or less), 74% of the staff had some ECE training, via in-service sessions, workshops, or high school courses. Indeed, the study concluded that the effects of advanced general education and advanced ECE-related education/training were similar.

Discussion and Recommendations

On first glance, it seems that these studies confirm what is common sense, notably that more training and education — pre-service or in-service — yields higher quality.

Yet, on further read, to any director, ECE teacher, or policymaker reading this set of findings, confusion is sure to reign. It appears that the studies seem to contradict one another — each study favors a different prescription for quality teaching and caregiving in ECE settings.

Difficulties in interpreting the data are aggravated by the lack of coherence in the use of terms from one study to another. Thus, we are perplexed by the data which, on the one hand, appears to restate the obvious and, on the other hand, is confusing.

Our response to this decided ambiguity is to challenge the research enterprise and the practice enterprise to address some critical issues emanating from this evolving body of work.

The Research Enterprise

Granted that these studies were done at different points in time and by different investigators, and granted that they may be examining different kinds of training interventions, there needs to be some general consensus in the field regarding the definitions of training, specialized and general education, formal training, in-service training, competency based training, etc.

We therefore call for scholars and practitioners to come together to create a common nomenclature for use in future studies. Such a nomenclature should be consensually derived and should be used over time, so that viable comparisons can be made and so that the early care and education field can build a research trajectory that enables ever-increasing degrees of practical and analytic sophistication.

While axiomatic to say that more training is needed, we need to collectively discern in what disciplines, for whom, under what conditions, and at what costs additional training should be pursued. To date, data gives us glimpses into these questions, as the foregoing review suggests, but little in these data provide sufficient coherence or insight regarding the detailed insights that are needed by program directors, teachers, and educators.

None of the studies reviewed were able to identify the most effective dimensions of training or education for improving teacher behavior or child outcomes in ECE classrooms. Therefore, a second research need is to develop a more refined research

agenda where studies sequentially build on one another and endeavor to determine what blend of staff training promotes the highest quality teaching and caregiving.

The Practice Enterprise

These studies suggest that directors need to do at least three things.

First . . .

In selecting staff, they need to be certain that, in the aggregate, the staff possess a broad range of educational and training backgrounds, skills, and abilities, with most of the staff having high levels of general education or ECE-related training/education and some having experience in early childhood settings. Moreover, directors need to recognize that the strength of early care and education is the diversity that workers bring to ECE programs and that assuring that there will always be strong representation from the community is crucial to program quality.

Second . . .

Directors, policymakers, and parents need to be committed to professional development for *all* staff. Certainly, staff benefit from exposure to new ideas, new technologies, and to new approaches to early childhood pedagogy. Staff also benefit from working collaboratively to create centers that are supportive of staff interactions and supportive of families. However equivocal in detail, these research studies do say that more training/education makes for better quality.

Our experience suggests that while the early care and education field may recognize this, some parents and policymakers do not. Parents are often concerned that more training will make caregivers "too cold," too routinized. How often have we heard that what parents want most is a loving, caring caregiver, as though training is inconsistent with that goal. We need to point out to parents and policymakers that, in fact, the converse is true. Training matters, and it matters a lot.

Third . . .

But beyond collective training for *all* staff, directors need to think systematically about what *individual* staff members need to perform their jobs well and to marshal professional satisfaction from that performance. What works for the neophyte teacher may not work for the veteran. What works for the caregiver who has advanced ECE-related education/training but little firsthand experience may not work for the experienced but less formally-trained individual. Further, the training needs of those working with infants may be different than those necessary for preschool teachers. In short, just as we seek to attune learning experiences to the needs of individual children, we also need to attune in-service training to the needs and desires of individual workers.

Fortunately, there are some inventive efforts taking place. In some centers, staff are asked to conduct training self-assessments to determine their goals. Various instructional medium are used, as are various supports to meet the needs of staff: individual instruction, visitations, group classes, coursework, and "shadowing" others.

In-service leadership training for lead teachers and directors of ECE programs is another creative approach, one that has improved the levels of perceived confidence among teaching staff, the quality of classroom teaching practices, and the organizational climate of ECE settings (Bloom and Sheerer, 1992).

Mentoring programs are burgeoning as one effective way both to support novice caregivers as they acquire knowledge and skills and to enhance the professional development of more skilled and experienced teachers, while giving them recognition and financial rewards to encourage their commitment to the ECE field. Further, mentoring bolsters the transference of skill areas from one staff member to another by recognizing that *all* staff have domains of expertise to share (Whitebook and Sakai, 1995). The expansion of these approaches should be supported and the development of other creative efforts should be explored.

In short, it seems that despite a lack of consistency regarding the details of the research findings, there is sufficient consensus and sufficient need to attend to the professional development of teaching staff in ways that are inventive, individualized, and effective. It also seems that practitioners cannot wait for the research data to provide magic bullets or detailed prescriptions. They must extract what they can from the data and move forward. That is precisely what this article has intended to do. Moreover, we fervently feel that early care and education is predicated on quality personnel. As such, the future of ECE must tackle the definitional and empirical issues raised herein.

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* The **NDCS** uses "child-related education/training" to refer to specialized preparation related to young children whether or not it is completed within a degree-granting program. Included in this title are early care and education (ECE) preparation through the formal education system — high school, vocational, college, graduate school — as well as through workshops and conferences.

The NDCS also looked at "formal education," defined as the number of years of education completed by staff at the high school, college, or graduate level, regardless of subject matter or specialization.

The **NCCSS** defines preparation in ECE and related disciplines, interchangeably, as "specialized training" and "ECE training" and divides this background into the following categories: high school, vocational, some college, college or more. Workshops, conferences, and other enrichment programs completed during staff tenure at a center fall under the heading of "in-service training."

Like the NDCS, the NCCSS refers to high school, college, or graduate level education, regardless of subject matter or specialization, as "formal education." The NCCSS looked at the level of "formal education" attained: high school or less; some college; associate's degree; or bachelor's degree or more.

The **CQCO** study divided teaching staff education/training background into three categories:

- Background 1 consisted of staff with a high school education or less and minimum (including some in-service, workshops, and high school courses) or no ECE training.
- Background 2 consisted of staff with some college education.
- Background 3 consisted of staff with a college degree or advanced ECE training.

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