QUINCE: Quality Interventions for Early Care and Education

Funding from:
The Administration for Children and Families and
Office of the Assistant Secretary for Planning and Evaluation (ASPE)
US Dept. of Health and Human Services
QUINCE-PFI Research Teams

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QUINCE Research Questions

• Does on-site consultation improve quality?
• Is PFI consultation better than existing Quality Enhancement (QE) initiatives?
• Can improvements be sustained?
• Do some providers benefit more than others?
• Do children benefit?
• Does fidelity matter?
Description of PFI On-Site Consultation

- A collaborative process focused on quality improvement, both environment and interactions
- 12-17 visits over a period of 6-10 months
- Joint needs assessment using ECERS or FDCRS and ECERS-E
- Consultee plays active role in the process, including goal-setting and evaluation
Stages of Consultation

1. Entry, Relationship Building
2. Formal & Informal Assessment
3. Setting Goals
4. Selecting Strategies
5. Implementing Action Plan
6. Evaluating Action Plan
7. Summary Conference
Goals and Content

• Goals
  - Enhance the material & teaching environment
  - Enhance childrens’ learning and development
  - Provide problem solving skills to the consultee

• Main Content Areas
  - Furnishings, space, and organization
  - Health, basic care, and routines
  - Language, literacy, and reasoning
  - Adult-child interactions & learning activities
Design of the PFI Study

- 5 states/5 research teams: California, Iowa, Minnesota, NC, Nebraska
- 27 agencies with quality enhancement programs, typically consultation
- Directors agreed to random assignment of consultants to PFI or Business As Usual
- Directors agreed to provide adequate time for the PFI intervention
- Consultants from 24 agencies consented
QUINCE Study Participants

24 agencies: 101 consultants

Control Only
35 consultants

Control to PFI
20 consultants

PFI Only
46 consultants

55 Controls
(43 enrolled sites)

136 FCC homes
53 Teachers

66 PFIs
(46 enrolled sites)

127 FCC homes
55 Teachers
Responsibilities of PFI Consultants

- Train providers on rating scale and administer scale accurately
- Develop and implement an action plan with providers based on the rating scale results
- Make regular visits with providers (minimum of 1 per month for 6–10 months)
- Document visits and contacts using web-based forms and communicate regularly with the liaison
Assessments: Timing & Content

• Timing: T1  baseline
  T2  end of intervention
  T3  6 months later
• Independent, trained, reliable data collector
• Observations: ECERS/FDCRS; ECERS-E, CIS
• Interviews: Childrearing Beliefs, Professional Motivation, Job Stress, Demographics
• 718 randomly selected children assessed fall and spring after Time 2 w/PLS-4 & Bracken
## Characteristics of FCC Providers & Teachers

<table>
<thead>
<tr>
<th></th>
<th>FCC Providers (N = 258)</th>
<th>Teachers (N = 102)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience, yrs.</td>
<td>10.6 (8.8)</td>
<td>11.3 (7.3)</td>
</tr>
<tr>
<td>AA degree or more</td>
<td>31%</td>
<td>25%</td>
</tr>
<tr>
<td>CDA</td>
<td>10%</td>
<td>28%</td>
</tr>
<tr>
<td>Training Hours (2 yrs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 11</td>
<td>18%</td>
<td>39%</td>
</tr>
<tr>
<td>11 – 20</td>
<td>21%</td>
<td>29%</td>
</tr>
<tr>
<td>21 – 30</td>
<td>30%</td>
<td>13%</td>
</tr>
<tr>
<td>More than 30</td>
<td>31%</td>
<td>18%</td>
</tr>
<tr>
<td>Child/Adult Ratio</td>
<td>4.5 (1.9)</td>
<td>6.9 (3.0)</td>
</tr>
<tr>
<td>% Children on subsidy</td>
<td>20% (.3)</td>
<td>40% (.3)</td>
</tr>
</tbody>
</table>
Research Questions 1-4

• Does on-site consultation improve quality?
• Is PFI consultation better than existing QE?
• Can improvements be sustained?
• Do some providers benefit more than others?
Teaching and Interactions Factor

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFI Teachers</td>
<td></td>
</tr>
<tr>
<td>Control Teachers</td>
<td></td>
</tr>
<tr>
<td>PFI FCC</td>
<td></td>
</tr>
<tr>
<td>Control FCC</td>
<td></td>
</tr>
</tbody>
</table>
Provisions for Learning Factor*

*This factor score contains some health and safety items for the FCC providers whereas for classrooms, the factor is mainly composed of learning materials.
ECERS-E Literacy Score
Teachers and FCC Providers Combined

![Graph showing mean score over time for PFI and Control groups.](Image)
Summary of Quality Outcomes

- Classrooms – both PFI and Controls significantly improved over time on both ECERS factors
- FCC Homes - greater gains for PFI than controls on all 3 FDCRS factors (sign. for 2)
- Classrooms and homes - PFI significantly greater than Control on ECERS-E Literacy
- No changes in Caregiver Interaction Scale, professional motivation, or stress; marginally significant (p < .10) effect on Modernity (progressive childrearing beliefs)
Answers to Quality Questions

- On-site consultation improves child care quality as measured by traditional observational quality assessments.
- PFI better than typical consultation for Family Child Care providers, but not for Classrooms
- Gains can be sustained and, in fact, increase over time
- Mediators: PFI was more effective for more experienced teachers and those with more child-centered beliefs; similar but less strong associations for FCC
- Moderators: PFI more effective for teachers at higher doses on both ECERS factor scores; not so for FCC
## Characteristics of Children

<table>
<thead>
<tr>
<th></th>
<th>In FCC (N = 482)</th>
<th>In Classrooms (N = 236)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 1&lt;sup&gt;st&lt;/sup&gt; assessm’t</td>
<td>3.4 years</td>
<td>3.7 years</td>
</tr>
<tr>
<td>Girls</td>
<td>46.5%</td>
<td>46.0%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>72%</td>
<td>40%</td>
</tr>
<tr>
<td>African-American</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>American</td>
<td>20</td>
<td>37</td>
</tr>
<tr>
<td>Multi/Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic ethnicity</td>
<td>13%</td>
<td>13%</td>
</tr>
</tbody>
</table>
### Characteristics of Families

<table>
<thead>
<tr>
<th></th>
<th>In FCC (N = 318)</th>
<th>In Classrooms (N = 124)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age</td>
<td>32 (6.2)</td>
<td>32 (5.3)</td>
</tr>
<tr>
<td>Parents married</td>
<td>70%</td>
<td>75%</td>
</tr>
<tr>
<td>No. in household</td>
<td>4.0 (1.1)</td>
<td>3.9 (1.1)</td>
</tr>
<tr>
<td>Mean fam income</td>
<td>$55,700</td>
<td>$59,714</td>
</tr>
<tr>
<td>Mean cc fee/month</td>
<td>$439</td>
<td>$490</td>
</tr>
<tr>
<td>Subsidy</td>
<td>14%</td>
<td>16%</td>
</tr>
</tbody>
</table>
Research Question 5

• Do children benefit from on-site consultation and quality? Are effects different for subsidized children?

• Children were assessed fall and spring with Preschool Language Scale and Bracken School Readiness measure.

• Significant group differences were found for the PLS but not Bracken.
Spring Preschool Language Scale

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>PFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center</td>
<td>101.3</td>
<td>105.4</td>
</tr>
<tr>
<td>Home</td>
<td>102.7</td>
<td>101.7</td>
</tr>
</tbody>
</table>
Effects for Subsidized Children

- Children in PFI-served classrooms were rated significantly higher in social competence than in classrooms served by Control consultants.
- Social Competence was a composite of Initiative, Self-Control and Attachment from the Devereux Early Childhood Assessment (DECA) and Social Competence from the Social Competence and Behavior Evaluation (SCBE); a 4-point scale.
Spring Social Competence Composite (signif. trt x subsidy interaction, adj. means)
Research Question 6

- Does fidelity of implementation matter?
- Sub-questions:
  How different are consultants in their implementation of the PFI model?

Can we predict who will implement the model more faithfully?

Does fidelity add to the prediction of quality outcomes?
Consultant Variability in Implementing Aspects of PFI (mean item score, 1-4 scale)

- Total number of visits
- Collaboration
- Goals/strategies linked to child outcomes
- Clear action plan goals/strategies
- Documentation
- Consultant skills
- Regularity of visits
- Goals related to rating scale scores
- Rating scale scoring accuracy

Mean Item Score

1  2  3  4
Mean Consultant Fidelity Score
(PFI consultants only)

Bottom 25%: 2.3
Top 25%: 3.5
Conclusions re: Fidelity

• Considerable range of implementation across PFI consultants; likely to also be true for Control consultants although we have no measure of that.

• Select demographic characteristics of consultants are not predictive of fidelity; implementation depends on provider too.

• Analyses to date do not show fidelity adding to the prediction of quality changes over time.
Consultant Turnover is a Big Issue for Programs

- 15% annual turnover among QUINCE study teachers and FCC providers was expected (and planned for in the power analyses)
- Little turnover expected among consultants
- Results in QUINCE:
  - 39% loss of consultants
  - 58% loss of teachers
  - 37% loss of FCC providers
QUINCE Summary

• On-site consultation is effective for improving care in multiple domains; although changes are modest, they endure and grow.

• PFI seems more effective for FCC homes than typical consultation; in classrooms a wide variety of consultation models resulted in quality gains.

• Evidence that programs must adapt to turnover at every level.

• Consultants vary widely in skills, knowledge and fidelity to a particular model of consultation.
Early Childhood Consultation Resources

Consultation in Early Childhood Settings
(2005) by Virginia Buysse and Pat Wesley
Paul H. Brookes Publishing
1-8080-638-3775
brookespublishing.com

Pat Wesley
Grove House Consultants, 919-548-5397
grovehouseemail@yahoo.com