

Child Outcome Measures in the Study of Child Care Quality

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Two Key Questions

- Are we choosing the outcomes that are important to study with respect to child care quality?
- Are there problems with the characteristics of the child outcome measures used that might hinder finding associations between quality and outcomes?

Review Approach

- Reviewed studies in Vandell & Wolfe (2000) and updated with studies through December 2005
- Total of 65 studies
- Within each outcome area, looked at domains of child outcomes studied, as well as at more specific constructs within domains and measures
- Reviewed for specific psychometric issues

Review Approach

For Domains, Used Five School Readiness Dimensions:

- Physical Well-being and Motor Development
- Social and Emotional Development
- Language Development
- Approaches to Learning
- Cognition and General Knowledge

Review Approach

For Constructs Within Domains:

- ◆ Discrete child outcomes within domains that were actually included in analyses

For Measures:

- ◆ Tool actually implemented. Often used to cover more than one construct

Example:

- ◆ Within domain of social and emotional development, constructs of internalizing and externalizing behavior problems, measured using the Child Behavior Checklist

Review Approach

Psychometric Issues Identified at Level of Measure

- 0 No methodological concerns
- A Ambiguity (aspect of quality or child outcome?)
- B No reliability information provided (not standardized or established measure)
- C No validity information provided (not standardized or established measure)
- D No reliability or validity data for culture measure used in
- E No reliability or validity data for modified measure
- F Adequacy of reliability can be questioned
- G Adequacy of validity can be questioned
- H Detail or specificity is lacking about content of the measure
- I Composite score used without empirical basis
- J Part or all of measure's content not clearly related to underlying construct being measured

Number of Studies Addressing Each Domain of School Readiness

<u>Domain</u>	<u>Number of Studies (out of 65)</u>
Physical Well-being & Motor Development	3
Social & Emotional Development	52
Language Development	33
Approaches to Learning	16
Cognition & General Knowledge	35

Issues of Alignment

- Very limited focus on physical well-being and motor development unexpected given emphasis on health in measures of quality
- For example, in ECERS-R
 - ◆ Rating of meals and snacks with focus on nutritional value, sanitary conditions, and accommodations for food allergies
 - ◆ Rating of space for gross motor play with focus on safety of space
 - ◆ Rating of adequacy of supervision for gross motor activities
 - ◆ Health and safety practices emphasized

Issues of Alignment

- Lack of a logic model for linkages between child care quality and child outcomes?
- We appear to have a broad logic model: structural features of quality are linked with process quality which in turn predicts child outcomes (NICHD Study)
- We seem to be lacking models of how specific aspects of quality are linked with specific child outcomes

Issues of Alignment

Difficulty relating findings across studies if child outcome constructs and measures differ widely

Found that specific constructs studied and measures used to study them recur in areas of language as well as cognition and general knowledge

Not the case for measures of socioemotional development, especially positive aspects

Examples of Positive Social and Emotional Constructs

- Attachment to mother and the provider
- Emotional expressiveness
- *Easy vs. Difficult* temperament
- Attractiveness
- Playfulness
- Popularity
- Leadership
- Assertiveness
- Efficacy
- Peer vs. Adult orientation
- Positive separation and reunion behavior
- Social bids
- Social cognition
- Self esteem
- Considerateness
- Empathy
- Acceptance by peers
- Conflict negotiation
- Emotional well-being

Additional Issues with Constructs in Social and Emotional Domain

- Are these measures of the environment or of an outcome specific to a child?
- Are these measures malleable? (e.g., shyness, temperament, hesitancy)
- Is there a positive end of a continuum? (e.g., peer orientation)
- Self-regulation is highlighted in research, but not often studied.

Presence of Methodological Concerns

At least one methodological concern regarding measures in studies focusing on:

Percent of Studies

Social & Emotional Development	71%
Language Development	36%
Cognition & General Knowledge	43%

Most Frequently Occurring Problems

- Measures of Social and Emotional Development
 - ◆ Absence of validity information
 - ◆ Modification of a measure without providing reliability or validity information regarding modified measure
- Language Development
 - ◆ Absence of validity information
 - ◆ Lack of information on content of measure
- Cognition and General Knowledge
 - ◆ Lack of information on content of measure

Most Frequently Occurring Problems

- Lack of information presented more than evidence of limitations with measures
- No indication of pervasive methodological problems
- But issues most prevalent for measures of social and emotional development

Next Steps

- Need for better coverage of health, approaches to learning
- Need for focus on alignment: explicit logic model, consistency across studies, level of analysis
- Need for work on measures of social & emotional development, especially positive aspects

New Efforts

Roundtable on Measuring Quality in Early Childhood and School-Age Settings: at the Junction of Research, Policy and Practice

December 4-6 2006

- Sponsored by Child Care Research Team within Office of Planning, Research and Evaluation, US DHHS

New Efforts

At Quality Roundtable:

- State representatives in states implementing or developing Quality Rating Systems were open to the idea of including more specific measures of child care quality (instead of, or in addition, to broad measures)
- At same time, state representatives felt strongly that measures focusing on health aspects of child care quality were needed.

New Efforts

- Follow-up steps to Quality Roundtable:
 - ◆ Meeting summary to be posted on Research Connections as well as Child Trends websites (currently under review)
 - ◆ Compendium of Measures of Quality in Early Care and Education Settings, being developed by Child Trends

New Efforts

- ◆ New analyses will be carried out to identify aspects of quality that are the strongest predictors of specific child outcomes
- ◆ Papers will be prepared looking at aspects of quality that have received limited focus, such as health and culture

New Efforts

- New work on developing child outcome measures funded by a consortium led by NICHD
- Committee on Developmental Outcomes and Assessments for Young Children recently launched at National Research Council