

Measuring Father Involvement: Questions We Thought We Answered

Brent A. McBride

**Department of Human & Community
Development**



I L L I N O I S

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Developmental Progression – Research on Father Involvement

- fatherhood as a clearly defined field of research
- growth over time
- personal growth
- reflection = questions



Measuring Father Involvement: Questions/Challenges

■ Quantity vs. Quality

QUESTION: Do we really know the “quantity” of what men do when parenting during the first year of a child’s life?????

■ Adoption of Maternal Templates of Involvement

QUESTION: What are the measurement templates and theoretical lenses we should be using when attempting to measure FI, especially in unique/challenging contexts?????

Measuring Father Involvement: Questions/Challenges

■ Validity of Reports on Father Involvement

QUESTION: Can we have confidence in findings based on maternal reports of father involvement????

■ Global vs. Domain Specific Father Involvement

– QUESTION: How can both approaches be used to better inform our understanding of how men approach parenting during the first year of a child's life????

Measuring Father Involvement: Questions/Challenges

■ When to Measure Father Involvement

QUESTION: When is the optimal time to assess FI so as to adequately capture the full range of parenting activities exhibited by men?????

■ Frequency of Father Involvement: Likert vs. Time-Based Measures

QUESTION: What is the best approach to assessing father involvement using time-based measures?????

Measuring Father Involvement: Questions/Challenges

■ Measurement Alignment in Challenging Contexts

QUESTION: Have alignment issues been adequately addressed in research on father involvement, especially when working across groups of children/families????

■ Additional Questions to be Addressed

Measurement Invariance: A Concrete Example of How Not Addressing Measurement Issues will Impact Conclusions

- measurement invariance – defined
- assumptions of measurement invariance
- non-invariant structures
- failure to establish measurement invariance

Measurement Invariance: A Concrete Example of How Not Addressing Measurement Issues will Impact Conclusions

- data source – ECLS-B
- Sample
 - 3,500 children/families
- ECLSB & children w/disabilities
- measures of father involvement
 - Literacy involvement
 - Play involvement
 - Routine caregiving
 - Responsive caregiving

Testing Measurement Invariance: Multiple Group Structural Equation Framework

- multiple groups factor analysis model
- four-stage nested hierarchy approach
 - configural invariance
 - metric invariance
 - strong invariance
 - strict invariance

Analysis Plan & Results

- measurement invariance
 - assessed separately for each measure

- multiple groups & pairwise comparisons

Table 1. The five group model for all time points on all four father involvement factors.

| | | <u>Father Involvement</u> | | | | | | | | |
|--|---------|---------------------------|-------|-------|----------------|-------|-------|----------------|-------|-------|
| | | <u>9 Months</u> | | | <u>2 Years</u> | | | <u>4 Years</u> | | |
| | | $\Delta\chi^2$ | CFI | RMSEA | $\Delta\chi^2$ | CFI | RMSEA | $\Delta\chi^2$ | CFI | RMSEA |
| Literacy | Config. | | 0.999 | 0.019 | | 1.000 | 0.000 | | 1.000 | 0.000 |
| | Weak | 3.831 | 1.000 | 0.000 | 10.357 | 0.995 | 0.028 | 14.440* | 0.988 | 0.036 |
| | Strong | 12.948 | 0.996 | 0.013 | 10.168 | 0.993 | 0.023 | 19.396* | 0.972 | 0.040 |
| | Strict | 12.385 | 0.995 | 0.011 | 15.037 | 0.989 | 0.022 | 11.877 | 0.969 | 0.031 |
| Routine Caregiving | Config. | | 0.995 | 0.036 | | 0.960 | 0.095 | | 0.994 | 0.034 |
| | Weak | 4.832 | 0.999 | 0.009 | 9.030 | 0.975 | 0.051 | 15.781 | 0.991 | 0.028 |
| | Strong | 6.601 | 1.000 | 0.000 | 9.563 | 0.977 | 0.039 | 17.662 | 0.986 | 0.028 |
| | Strict | 18.366 | 1.000 | 0.000 | 26.835* | 0.972 | 0.036 | 10.849 | 0.993 | 0.017 |
| Play | Config. | | 1.000 | 0.000 | | 0.992 | 0.039 | | | |
| | Weak | 89.468*** | 0.822 | 0.100 | 8.215 | 0.996 | 0.019 | | | |
| | Strong | 20.403*** | 0.828 | 0.072 | 26.735** | 0.985 | 0.029 | | | |
| | Strict | N/A | 0.889 | 0.045 | 26.230 | 0.978 | 0.030 | | | |
| Responsive Caregiving (uncorrelated items) | Config. | | 0.900 | 0.137 | | | | | | |
| | Weak | 25.483** | 0.898 | 0.098 | | | | | | |
| | Strong | 5.299 | 0.919 | 0.070 | | | | | | |
| | Strict | 14.520 | 0.920 | 0.058 | | | | | | |
| Responsive Caregiving (correlated Items) | Config. | | 0.999 | 0.019 | | | | | | |
| | Weak | 25.364** | 0.987 | 0.039 | | | | | | |
| | Strong | 4.893 | 0.995 | 0.019 | | | | | | |
| | Strict | 18.145 | 0.996 | 0.013 | | | | | | |

Note: chi-square difference ($\Delta\chi^2$) is for comparisons between the current model and the model on above.

* $p < .05$. ** $p < .01$. *** $p < .001$

Results – Multiple Groups Comparison

■ literacy involvement

- strict invariance across all groups at all time points

■ routine caregiving

- Strict invariance across all groups at all time points

■ responsive caregiving

- 9-month only, strict invariance across all groups

■ play involvement

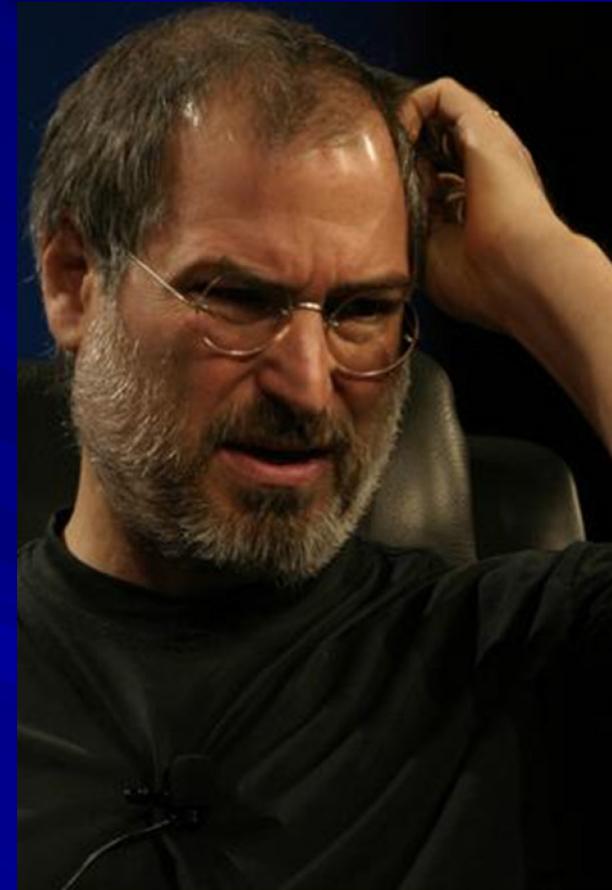
- configural invariance at 9-months
- strict invariance at 2-years

Results – Pairwise Comparisons

- Different patterns – different conclusions
 - ASD and CP groups

Final Reflections/Final Question

Where are we as a field in coming to grips with measurement issues as they related to father involvement during the first year of a child's life – especially in unique and/or challenging parenting contexts?



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