



What's been missing: Why child age, gender, and reporter all matter in measuring father involvement

W. Justin Dyer & Randal D. Day, *Brigham Young University*



Introduction

When measuring father involvement (FI), research has often implicitly assumed that FI measures are invariant across child age, child gender, and the reporter. However, this has yet to be systematically examine. This is a fundamental question as it explores whether the meaning of FI items differ across these contexts, making for essentially different constructs that cannot be compared at the mean level. We explore this possibility by testing measurement invariance across these contexts. We further examine whether the criterion-validity of FI measures varies by reporter.

Sample. Participants for this study were taken from Waves 1 through 5 of the *Flourishing Families Study*, an ongoing, longitudinal study of families with adolescents. The sample is drawn from a large, Northwestern U.S. city. The subsample for this study included only two-parent, mother-father couple households (n = 320). Data at child ages 10, 12, and 14 were used.

Measure of Father Involvement. A reduced form of the Inventory of Father Involvement was used (Hawkins et al., 2002) with 8 items that most applied to adolescents.

Methods. Exploratory factor analyses were used to determine the number of factors. Exploratory structural equation modeling was then used to examine measurement invariance over time and across child gender and reporter. Weak, strong, and strict invariance were examined. Typically, strong invariance is requisite to have comparable measures.

Criterion-validity is examined via partial-correlations of FI factors with hypothesized FI correlates (controlling for race, SES, and gender). Correlates include observations of father-child interactions, survey reports of internalizing and externalizing problems, and child physiologic reactions to stress.

Results. Two factors were identified at each time point and for each reporter except for child report at age 12 and father report at age 14. Weak invariance rarely held. Strong invariance did not hold for any of the comparisons except for across gender of father and mother report. Twenty four significant partial-correlations were found between child report of FI and hypothesized correlates compared with 10 for father report and 16 for mother report.

Conclusion. Given strong invariance did not hold, mean comparisons are likely not justified. One implication is that typical notions of “differences” or “growth” in FI should be conceptualize to included structural differences. In creating FI measures, researchers should attend closely to item meanings across contexts, especially given the widely varying criterion-validity. Importantly, varying perspectives of FI are meaningful in their own right and should be further studied.

Table 1.
Father Involvement Items

- 1 Attend your child’s activities (like a soccer game or something he/she is doing at school)?
- 2 Read books or magazines with your child?
- 3 Give encouragement to your child?
- 4 Take care of your child (like fix him/her food or pick him/her up from school)?
- 5 Act as a friend to your child?
- 6 Work hard to pay for things your child needs?
- 7 Help your child with homework?
- 8 Make it easy for your child to talk to you?

Table 2. Factor loadings above .40 across reporter and time. In no instance does strong invariance hold.

age	Child Report		Father Report			Mother Report	
	Factor 1	Factor 2	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2
10	Attend Activities .67 Read Books .48 Encourage .48	Act as Friend .92 Talk to .51	Take Care of .77 Homework .43	Talk to .82 Act as Friend .60 Encourage .53 Work Hard .43		Take Care of .71 Homework .44	Talk to .78 Act as Friend .55 Encourage .55 Work Hard .44
12	Factor 1 Talk to .78 Act as Friend .75 Encourage .74 Homework .57, Read .50, Attend Activities .49, Work Hard .48		Factor 1 Homework .68 Attend Activities .40 Read .40	Factor 2 Talk to .83 Encourage .70 Act as Friend .66		Factor 1 Homework .75 Take Care of .48 Read .48 Attend Activities .47	Factor 2 Talk to .81 Encourage .76 Act as Friend .65
14	Factor 1 Take care of .69 Attend Activities .62 Encourage .61 Work Hard .45	Factor 2 Talk to .87 Act as Friend .66	Factor 1 Attend Act. .69	Factor 2 Read .63 Homework .46	Factor 3 Talk to .66 Encourage .62 Act as Fri. .60	Factor 1 Attend Activities .61 Take care of .60 Encourage .58	Factor 2 Talk to .78 Act as Friend .61

Number of Significant Partial Correlations with Correlates (observational, survey report, physiologic) by Reporter:

Child Report: 24

Father Report: 10

Mother Report: 16