

Mother and Father Involvement in a Culturally Diverse Head Start Center: An Investigation Using Multi-Level Modeling

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Brief Review of the Literature

- Family involvement is identified as a key protective factor for low-income, ethnic minority children and youth (Jeynes, 2003).
- However, methodological issues in surveying FI have contributed to inconsistent findings (McWayne et al., 2004).
- Ethnographic studies suggest that FI is influenced by cultural factors, which need to inform the home-school relationship (Delgado-Gaitan, 1991). Currently, 1 in 5 youth in the U.S. are either foreign born or children of immigrants (Suarez-Orozco, 2001).
- Qualitative research shows that incongruence between home and school cultures often leads to dissatisfaction and a lack of trust (Villanueva, 1997; Valenzuela, 1999).
- Father involvement has received increasing attention, but our current knowledge of father involvement has been informed largely by mothers' reports (Coley & Morris, 2002).

Research Questions

Research Question # 1: Are demographic characteristics and level of satisfaction with contact associated with family involvement?

Research Question # 2: Do specific family involvement behaviors relate to measures of children's school readiness?

Center Demographics

176 Head Start Families

45% single-parent households

55% two-parent households

Ethnicity/Race:

- Latino 63%
- White 30%
- Other 7 %

Primary Language:

- English 37%
- Spanish 33%
- Polish 30%

Sample Demographics

$N = 80$ dyads (80 children, 160 parents)

Mean age of children = 49.9 months, 52% girls

Mean age of mothers = 31.5 years

Mean age of fathers = 34.5 years

Primary language spoken in the home:

- English 24%
- Spanish 23%
- Polish 34%
- Bilingual 19%



Adults in household: $M = 2.59$ ($SD = 1.0$)

Children in household: $M = 2.03$ ($SD = 0.80$)

Summary of Sample Demographics

- 75% of families participated, but only 50% included complete dyadic information ($N=80$).
- 77% of dyads were married to each other ($N=62$).
- 78% of mothers and 68% of fathers had at least a high school education.
- 100% of fathers were employed, compared with 39% of mothers.
- 47% of parents were Latino, 51% were Polish, and 2% identified as "Other."

FAMILY INVOLVEMENT QUESTIONNAIRE

(Fantuzzo, Tighe, & Childs, 2000)

Three composites of family involvement:

Home-Based Involvement ($\alpha=.89$)

School-Based Involvement ($\alpha=.86$)

Home-School Conferencing ($\alpha=.90$)

160 parent respondents

80 children



Examples of Home-Based Contributions

- Spending time at home on reading, numbers, and creative activities.
- Bringing home learning materials (i.e., videos).
- Talking about parents' own experiences in school.
- Taking child to places in the community (i.e., zoo, museum, public library).



Examples of School-Based Contributions

- Volunteering in the classroom.
- Going on class trips.
- Meeting with other parents to plan events.
- Attending workshops for parents.



Examples of Home-School Conferencing

- Talking with child's teacher about learning difficulties and accomplishments.
- Discussing with child's teacher ways to promote learning at home.
- "I feel that teachers and administrators welcome and encourage parents to be involved at school."

LEVEL-1 AND LEVEL-2 PREDICTORS

At Level 1 (individual predictors):

- Parent gender
- Parent education level
- Satisfaction with school contact

At Level 2 (family predictors):

- Child gender
- Mothers' employment
- Marital status
- Primary language spoken in home

Multi-Level Models for Mother & Father Involvement:

At level 1 (individual level):

$$FIQ_{ij} = \beta_0_j + \beta_1 \text{PARENT GENDER (mothers)} + \beta_2 \text{GRT HIGH SCHOOL} + \beta_3 \text{LESS HIGH SCHOOL} + \beta_4 \text{SATISFACTION} + r_{ij},$$

where $r_{ij} \sim N(0, \sigma^2)$

At level 2 (family level):

$$\beta_0_j = \gamma_{00} + \gamma_{01} \text{CHILD GENDER}_j + \gamma_{02} \text{EMPLOYMENT}_j + \gamma_{03} \text{MARRIED}_j + \gamma_{04} \text{SPANISH}_j + \gamma_{05} \text{POLISH}_j + \gamma_{06} \text{BILINGUAL}_j + \mu_{0j},$$

where $\mu_{0j} \sim N(0, \tau_{00})$

Overall Models for Mother & Father Involvement:

Combining the Level 1 and Level 2 models yields the overall model:

$$\text{FIQ}_{ij} = \gamma_{00} + \gamma_{01}\text{CHILD GENDER}_j + \gamma_{02}\text{EMPLOYMENT}_j + \gamma_{03}\text{MARRIED}_j + \gamma_{04}\text{SPANISH}_j + \gamma_{05}\text{POLISH}_j + \gamma_{06}\text{BILINGUAL}_j + \beta_1\text{PARENT GENDER (mothers)} + \beta_2\text{GRT HIGH SCHOOL} + \beta_3\text{LESS HIGH SCHOOL} + \beta_4\text{SATISFACTION} + \mu_{0j} + r_{ij}$$

where $\mu_{0j} \sim N(0, \tau_{00})$ – represents variation in intercepts between families
and $r_{ij} \sim N(0, \sigma^2)$ – represents variation within families

Research Question #1:

Are demographic characteristics and level of satisfaction with contact associated with family involvement?

Fixed Effects	Home-Based Involvement	School-Based Involvement	Home-School Conferencing
<i>Level 1 Predictors</i>			
Parent sex (mothers)	.33****	.38****	.61****
Education			
< high school	.03	-.16	-.04
> high school	.11	.07	.13
Satisfaction with contact	.31*	.50***	.74****
<i>Level 2 Predictors</i>			
Child sex (girls)	-.11	-.09	-.18
Employment	-.06	-.10	-.18
Married	-.06	-.13	-.06
Primary language			
Spanish (primary)	.19	-.13	.16
Polish (primary)	.16	-.02	.26
Bilingual	.12	-.13	.00

N = 80 dyads. **p* < .05, ***p* < .01, ****p* < .001, *****p* < .0001.

ESTIMATED VARIANCE COMPONENTS

DV	Estimate		% Variance	ICC	Fit Statistic -2 REML LL
	Intercept	Residual	Explained		
<u>Home-Based Involvement</u>					
Random effects only	.111*	.256****		.30	256.9
Level 1 fixed effects	.109**	.186****	.27	.37	218.5
Level 2 fixed effects	.115**	.189****	-.06	.38	228.5
<u>School-Based Involvement</u>					
Random effects only	.099*	.232****		.30	242.3
Level 1 fixed effects	.128***	.133****	.44	.50	194.2
Level 2 fixed effects	.134***	.133****	-.05	.50	203.9
<u>Home-School Conferencing</u>					
Random effects only	.045	.498****		.09	318.4
Level 1 fixed effects	.135**	.240****	.52	.37	250.0
Level 2 fixed effects	.123**	.242****	.09	.34	253.6

A COMPARISON OF MOTHERS' AND FATHERS' INVOLVEMENT

	<u>Mothers</u>	<u>Fathers</u>
FIQ dimension	Mean (standard deviation)	Mean (standard deviation)
Home-Based Involvement (p<.01)	3.19 (.48)	2.82 (.68)
School-Based Involvement (p<.01)	1.87 (.53)	1.49 (.58)
Home-School Conferencing (p<.01)	2.25 (.63)	1.61 (.71)

$r = .30-.49$

SCHOOL READINESS MEASURES

Adjustment Scales For Preschool Intervention

(ASPI; Lutz, Fantuzzo, & McDermott, 2002)

Early Childhood Research Quarterly

Aggressive ($\alpha = .93$)

Oppositional ($\alpha = .75$)

Overactive/Inattentive ($\alpha = .77$)

Withdrawn/Low Energy ($\alpha = .69$)

Withdrawn/Shy ($\alpha = .73$)

SCHOOL READINESS MEASURES

THE EARLY SCREENING INVENTORY-REVISED

(ESI; Meisels, Marsden, Wiske, & Henderson, 1997)

- **Nationally standardized instrument**
(40% Head Start children)
- **Strong predictive validity for national sample**
(Raw scores related to: performance in K, 1st & 2nd grades and future referral status)
- **Measures children's abilities in the areas of speech, language, cognition, perception, fine and gross motor skills**

Research Question #2:

Do specific family involvement behaviors relate to measures of children's school readiness?

	Aggress	Oppos	Inatten	Shy	Low Energy	ESI
<u>FIQ Dimension</u>						
<i><u>Mothers' Involvement</u></i>						
Home-Based	.03	.08	.09	.05	.00	-.01
School-Based	.05	-.04	.13	.05	.08	-.17
Conferencing	.08	.21*	.13	-.05	-.02	-.24**
<i><u>Fathers' Involvement</u></i>						
Home-Based	.10	-.03	.00	.08	-.07	-.12
School-Based	.02	.09	.19	-.06	-.07	-.05
Conferencing	.10	.16	.19	-.03	-.09	-.20*

* $p < .10$, ** $p < .05$.

Overall Conclusions

- FIQ dimensions appear to be *reliable* with Polish and Spanish-speaking families in this Head Start program.
- *Parent gender* was the only demographic factor associated with levels of involvement, with mothers reporting higher levels across all 3 FIQ dimensions.
- *Parental satisfaction* with school contact & support was related to all 3 types of involvement, with relatively stronger associations in terms of involvement at school.
- Significant *within-family* and *between-family* variation remains to be explained.
- Current findings with respect to child outcomes are *inconsistent with existing research* using the FIQ (e.g., Fantuzzo, McWayne, Perry, & Childs, 2004).

Implications . . .

FOR RESEARCH:

- Continue search for family-level factors which might account for variation
- Conduct longitudinal work with the FIQ
- Examine issues related to construct validation for culturally diverse and immigrant groups

Implications . . .

FOR PRACTICE:

- Consider how to engage fathers at school and how to support involvement at home
- Satisfaction appears to be very important – consider ways to build trust
- Parent status variables do not appear to be as important as we often assume