

FATHERS' INVOLVEMENT IN PRESCHOOL PROGRAMS FOR CHILDREN WITH AND WITHOUT HEARING LOSS

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HE AUTHORS compared the involvement in children's development and education of 38 fathers of preschoolers with hearing loss to the involvement of a matched group of 36 fathers of preschoolers with normal hearing, examining correlations between child, father, and family characteristics. Fathers completed self-reports regarding their parental involvement and parenting self-efficacy and reported on their family cohesion and adaptability. Mothers also reported on their husbands' involvement. Similarly high levels of involvement on the part of both groups of fathers were found. Involvement correlated positively with fathers' self-reported parenting self-efficacy, family cohesion, and adaptability, and mother-reported paternal involvement. Implications for professionals and mothers are discussed, including the need to encourage mothers' support for their husbands' involvement and to empower fathers' sense of competency in order to increase their involvement.

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Traditionally, with the birth of a child the division of child-rearing tasks between mother and father typically resulted in the mother assuming primary responsibility. Although today most mothers work outside the home, comparatively few fathers are equally involved in child rearing, and until recent decades the child-rearing role remained the mother's province (Sabattini & Campell, 2004). The mother was perceived as the most influential figure in her children's devel-

opment, while the father's role was neglected (Castelain-Meunier, 2002; Levy-Shiff, 1994; Shachar & Lioush, 2007). Over the last several decades, major economic changes such as increasing numbers of women entering the workforce, as well as sociocultural changes related to gender role stereotypes and expectations, coincided with a shift toward acknowledging fathers' contribution to children's development and unique contribution to the family system (Evans & Fogarty, 2005). In the past few decades, researchers have begun to recognize that fathers' involvement contributes in unique ways to child development (Hakoama & Ready, 2011).

Parental involvement is defined as the active role parents take in their child's development and the knowledge and participation they share with all professionals and educational systems that are part of the child's daily life (Bumpus, Crouter, & McHale, 1999). Most studies on parental involvement have pinpointed its positive effect on child development but generally have focused on maternal involvement, both among mothers of children with normal development and among mothers of children with special needs (Gardner, Burton, & Klimes, 2006; S. King, Teplicky, G. King, & Rosenbaum, 2004). Relatively few studies have examined fathers' involvement with their children with special needs (Dollahite, 2004; Flippin & Crais, 2011; Lamb, 1986).

Also, to the best of our knowledge, no studies have specifically examined parental involvement among fathers of children with hearing loss. In the present study, we aimed to narrow this gap in the literature by investigating fathers' involvement in raising preschoolers with hearing loss, as compared to the involvement of fathers of preschoolers with normal hearing. In line with structural theory (also known as the demand/response capability model; Shachar & Lioush, 2007), fathers' involvement in child care is determined by the ratio between the degree of need for paternal participation and the father's ability and availability to respond to this need (Coverman, 1985). Thus, fathers' involvement should increase in cases of high demand for parental involvement, such as when a young child has a condition like hearing loss. Since a child with hearing loss requires parents' medical, communicative, and rehabilitative decisions and interventions, it might be expected that fathers would be more involved in such a child's everyday care.

Contribution of Fathers' Involvement to Children's Development

Most research on parental involvement highlights its quality and quantity as major components of children's adjustment (Rogoff, 1990). In terms of fathers' quantitative involvement as compared to that of their wives, Parke (2003) reported that fathers' share of child rearing increased substantially from the 1970s and early 1980s to the 1990s. Research analysis suggests that fathers' time with children may have increased more for those married to employed mothers than for those married to nonemployed mothers (Sandberg & Hofferth, 2001). Moreover, studies have demonstrated that, like that of mothers' involvement, the absolute level of fathers' involvement decreases as children grow older (Parke, 2003).

Qualitatively, research has focused on differences between mothers' and fathers' involvement styles with their children. Whereas mothers tend to employ toys, games, and creative activities, fathers spend more time in physical play with their children (Parke, 2003). Through such physical contact with their fathers, babies and children not only experience more stimulation but also stimulatory patterns that differ qualitatively from those experienced with mothers (Parke, 2003). Thus, fathers tend to make contact with their children through physical touch, whereas mothers tend to verbalize more, be didactic, and mediate their interaction with their children. Fathers' involvement with their children also typically focuses on activities that are oriented toward achievement goals, such as reading, learning, and educational games (Parke, 2003).

Hawkins et al. (2002) formulated nine characteristics of the father's unique roles in children's development, comprising cognitive, emotional,

and ethical components of fathers' direct and indirect involvement:

1. supplying the child's basic needs
2. supporting the mother
3. discipline and teaching responsibility
4. encouraging success in school
5. providing affection and praise
6. spending time together and talking together
7. being attentive to the child's daily life
8. helping the child with homework
9. encouraging the child to develop talents

Lamb et al. (as cited in Parke, 2003) proposed three components of paternal involvement: interaction, availability, and responsibility. *Interaction* refers to the father's direct contact with the child through treatment and joint activities. *Availability* refers to the father's presence and his accessibility to the child, whether or not he and the child directly interact. *Responsibility* refers to the father's activities to ensure the child's care, and his concern for supplying the necessary resources. All those components are perceived as paternal activities that manage the child's behaviors, that involve taking on teaching roles, and that arrange the optimal environment to meet the child's needs (Parke, 2003).

Overall, research has shown that the main contributions of fathers' involvement with their children occur in three areas: gender identity, cognitive growth, and socioemotional development. Researchers have found that close relations between fathers and sons enhance sons' development of gender identity in terms of culture and socialization (Deutsch, Lussier, & Servis, 1993). Research has also shown that fathers' involvement influences

children's cognitive development and, to lesser degrees, their academic achievement and prospects for pursuing higher education (Evans & Fogarty, 2005). Children who experience warmth and close relations with their fathers tend to function better socially than those lacking such relations (Deutsch et al., 1993; Evans & Fogarty, 2005).

Despite the shift toward an increasingly active role for fathers in child rearing, a wide gap continues to exist between fathers' stated egalitarian intentions and these intentions' implementation (Doherty, Kouneski, & Erickson, 1998). Some theoretical approaches have linked a variety of factors to fathers' involvement levels, which may help differentiate highly involved from less involved fathers. These factors include paternal, child, and family characteristics, as described next.

Paternal Characteristics Influencing Fathers' Involvement

Research has shown that individual factors that characterize fathers, such as their attitudes toward parenting, motivation, and nursing skills, and also their level of education and their occupation, are associated with fathers' involvement with their children (Parke, 2003).

Fathers' Parenting Self-Efficacy

Research has indicated that fathers and mothers are similar in their sensitivity and competencies in providing care to their infants and children (Parke, 2003). However, despite these similarities, fathers provide care less frequently (Coltrane, 1996). Consequently, fathers acquire less parenting experience and tend to feel less confident in their parenting ability. This, in turn, leads them to transfer responsi-

bility to mothers, thus further limiting their experience as fathers and creating a growing gap between the two parents (Shachar & Lioush, 2007). In recognition of this cycle, the present study focused on fathers' parenting self-efficacy and its link to fathers' involvement in their children's lives.

Self-efficacy theory derives from Bandura's (1989) social learning theory. *Self-efficacy* is defined as the belief in one's ability to influence events in one's life (Coleman & Karraker, 1997). More broadly, the term refers to the motivation, cognitive resources, and necessary actions that enable control over life events (Ozer & Bandura, 1990). Beliefs about one's abilities affect one's choices, investment of efforts, persistence, and resilience in the face of obstacles or failures (Holmesa & Hustonb, 2010).

Parenting self-efficacy refers to expectations about the degree to which one is capable of performing one's parental role optimally (Beitel & Parke, 1998; Teti & Gelfand, 1991). It includes the specific knowledge and actions required for effective child rearing and the confidence that one will be able to perform parenting tasks successfully (Coleman & Karraker, 1997; Warren, Brown, Layne, & Nelson, 2011).

Research on parenting self-efficacy is scarce, and the available studies have focused on mothers. Teti and Garland (1991) pinpointed a clear correlation between mothers' self-efficacy and infants' temperament. Their study showed that parenting self-efficacy may be a decisive factor in determining maternal behavior and the baby's psychosocial development. In other studies, mothers who reported high self-efficacy were reported to be more competent than those with lower self-efficacy (Sanders & Woolley, 2005), and mothers interpreted their children's difficulties as challenges re-

quiring greater efforts and creative applications of skills (Donovan, Leavitt, & Walsh, 1990; Goto et al., 2010). Mothers who reported low parenting self-efficacy perceived children's difficulties as threats that exceeded their ability to cope (Donovan et al., 1990), and they avoided trying to cope with the difficulty actively and effectively (Bugental & Cortez, 1988).

A rare study specifically investigating fathers' parenting self-efficacy demonstrated that fathers' perceptions about their own parenting skills and attributions of value to their child-rearing role predicted their degree of involvement with their child (Beitel & Parke, 1998). Thus, as noted by Coleman and Karraker (1997), self-efficacy beliefs potentially may be self-fulfilling.

Fathers' Education Levels, Professional Status, and Number of Working Hours

Environmental factors such as cultural values and economic practices bear on the making and shaping of the father's roles in a particular cultural setting (Grolnick, Benjet, Kurowski, & Apostoleris, 1997). According to the relative resources model (Deutsch et al., 1993), fathers' power in family relations and their involvement in child rearing derive from their socioeconomic status, which is reflected by education levels, professional status (income and occupation), and degree of availability to the family. Different models have predicted different directions for those links between paternal education and occupation and the extent of fathers' involvement in their children's upbringing. According to the human capital model, couples who are raising children assign themselves parenting tasks based on rational consideration of each parent's availability vis-à-vis the time investment needed for those tasks, to

obtain maximum efficiency (Aldous, Mulligan, & Bjarnason, 1998). Thus, the degree of paternal involvement in child care should derive from fathers' working hours: Fewer work hours would correlate with greater involvement in child rearing (Crompton, 2006). Likewise, according to the relative resources model, parents who have fewer resources to offer because of factors such as lower education levels, more hours spent at work, and lower incomes are less involved in parenting (Holmesa & Hustonb, 2010). In the present study, we examined the correlation between paternal involvement and some paternal characteristics that, according to the relative resources model and the human capital model, are related to fathers' involvement in bringing up their children.

Children's Characteristics Influencing Fathers' Involvement

Two characteristics have been the focus of examinations of fathers' involvement with their children: a child's sex and age. Research has demonstrated differences in fathers' involvement with their sons and daughters (Beyer, 1995; Bronstein, 1984). Fathers tend to reveal more interest in their sons' achievements and spend more time playing with their sons than with their daughters (Marsiglio, 1991). Researchers have also shown that fathers' involvement is more significant to boys' development than to girls', particularly in terms of educational achievements and behavioral performance (Bretherton, Lambert, & Golby, 2005; Parke, 2002).

Findings regarding fathers' involvement as a function of children's age have been inconsistent (Rouyer, Frascarolo, Zaouche-Gaudron, & Lavanchy, 2007; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). For example, Parke (2003) found that the father's role as

physical game partner varies with children's age. This finding is supported by the theoretical notion that mothers usually form an intimate primary bond with infants, especially when nursing, due to primary maternal preoccupation or attunement. The father is generally assumed to enter into that dyad later (Raphael-Leff, 2010). This finding coincides with the assumption that fathers grow more comfortable with being involved with their children when the children are older because of the greater likelihood that father and children will have mutual recreational interests and greater amounts of time for each other (Lamb, 1986).

Conversely, some findings suggest that fathers' involvement decreases as children grow older, from 1 hour per day for infants to 30 minutes a day for children ages 9–12 years (see Yeung et al., 2001). McBride and Rane (1997) found that several measures of paternal involvement during children's early development (responsibility, interaction, and availability/accessibility) were correlated with fathers' attributions of importance to the parental role during that period.

Family Characteristics Influencing Fathers' Involvement

Specific contextual factors may mediate or regulate fathers' involvement in their children's upbringing. A better understanding of these contextual factors, particularly family and maternal factors, is important in light of the recent interest shown by policymakers in programs to encourage higher levels of paternal involvement. According to family systems theory (Bronfenbrenner (1992), the quality of family relations, the satisfaction derived from family relations, family cohesiveness, and adaptability can influence fathers' involvement in their

children's development and play an active role in fathers' willingness to take part in child rearing. According to the family systems model, each family member affects all others interdependently. Thus, the quality of relations (dynamics) within the marital system has a significant impact on the subsystem of parent-child interrelations, and thereby affects fathers' involvement with their children (Aldous et al., 1998). In other words, couples who are satisfied with their marriage and communication will exhibit more positive involvement in their children's development, whereas negative emotions between spouses will lead to less willingness to invest in the family system and to help the other spouse bring up the children.

The circumplex model of the family system approach delineates two central components of family functioning: family cohesiveness and adaptability (Olson, Russell, & Sprenkle, 1980, 1983; Olson, Sprenkle, & Russell, 1979). *Cohesiveness* consists of the emotional connections that typify the level of bonding and separation between family members. *Adaptability* is the family system's ability to make changes and to adjust flexibly to new developmental situations as well as unexpected situations that occur in the family life cycle. Both components reveal family functioning, and ideally the two are in equilibrium (Olson et al., 1983). The family circumplex model suggests that family cohesion and family adaptability are defining characteristics of family functioning and parental involvement in child rearing (Olson & DeFrain, 1997). To examine fathers' involvement within the context of the family system, the present study investigated how family cohesiveness and adaptability may relate to fathers' involvement in child rearing.

Maternal Factors Influencing Fathers' Involvement

As we have already mentioned, increased understanding of contextual factors such as mothers' behaviors can add crucial information conducive to policymakers' design of programs that foster higher levels of father involvement. Research findings show that information on mothers' attitudes toward fathers' roles and involvement in child rearing is important to efforts to predict the levels and quality of paternal involvement (Beitel & Parke, 1998; Bonney, Kelley, & Levant, 1999; Hakoama & Ready, 2011).

In particular, *maternal gatekeeping* is conceptualized as any behavior by the mother that inhibits or discourages a father from learning or engaging in parenting behaviors, and which consequentially determines the nature of his relationship with his children (Allen & Hawkins, 1999). Parke (1996) argued that mothers find themselves in an ambivalent position: They want to receive fathers' help with the children, but by doing so they simultaneously feel they are giving up key aspects of their own natural nurturing duties. McBride and Rane (1998) reported that those fathers whose involvement was evaluated more positively by their wives were more involved and responsible; likewise, fathers whose wives shared their beliefs and attitudes about parenting roles took more responsibility for their children. McBride et al. (2005) found that the relationship between mothers' ratings of their children's father's involvement and the fathers' degree of actual involvement in their children's lives was moderated by mothers' attitudes about paternal involvement. To advance understanding of the impact of mothers' perceptions, the present study in-

cluded examination of the correlations between maternal perceptions of fathers' involvement and fathers' own self-reported involvement.

Purpose and Hypotheses of the Present Study

The purpose of the present study was to examine fathers' involvement in the development and education of their preschool children with hearing loss, in comparison to that of fathers of preschoolers with normal hearing. To the best of our knowledge, this is an area hitherto neglected in the literature, and it should be clear that the entire discussion of the preceding literature review is based on children with typical hearing. We investigated the correlations between fathers' involvement and several characteristics of the child, father, and family. Fathers' involvement was assessed through self-reports as well as their spouses' reports. Both the extent (quantity) of paternal involvement and the types (quality) of that involvement were measured. We hypothesized the following:

1. Fathers of children with hearing loss will report higher levels of involvement in comparison to fathers of children with normal hearing.
2. Positive correlations will emerge between paternal self-reports and mothers' reports of paternal involvement.
3. Positive correlations will emerge between both types of reports of paternal involvement (self-reported and mother reported) and fathers' parenting self-efficacy.
4. Correlations will emerge between father involvement (for both report types) and fathers' education level, professional

status, and number of working hours. (The direction of these correlations was not predicted because of inconsistent prior findings.)

5. Positive correlations will emerge between both types of reports of paternal involvement and father-reported levels of family cohesion and adaptability.
6. Fathers of boys will report higher involvement than fathers of girls in both the hearing loss and normal hearing groups.
7. Negative correlations will emerge between both types of reports of paternal involvement and child age.

Method Participants

The study participants were 74 fathers of a child 3 to 6 years old: 38 fathers of a child with hearing loss and a matched group of 36 fathers of a child with normal hearing—and these 74 men's wives. All the children with hearing loss attended the same regular preschools as the children with normal hearing. All the children with hearing loss attended the same regular preschools with the children with normal hearing. Thus, there were 36 different preschools. The children with hearing loss and their families were treated by MICHA Tel Aviv, a non-profit early intervention agency that provides educational and rehabilitative services to children with hearing loss and their families; children are served from birth to age 7 years. MICHA (the Society for the Education of Deaf Children) provides auditory assessment and communication therapy to the children as well as guidance and support to their families. Because MICHA Tel Aviv is responsible for the treatment and care of young children with hearing loss throughout central

Israel, the families live in many different towns. Each child attends the regular preschool program in his or her neighborhood with children who have normal hearing.

All the children with hearing loss used spoken language to communicate. They had no additional disabilities. The hearing loss was profound for 30% of the children, severe for 28%, mild to moderate for 34%, and unilateral for 8%. Cochlear implant use was reported for 32% of the children, and hearing aid use for 60%. All the children had prelingual hearing loss, detected between the ages of 3 and 38 months. Upon diagnosis, the children had been referred to the MICHA center and received sensory aids.

The fathers were recruited through the educational director of the MICHA center. A set of questionnaires was directed to fathers who met the study's recruitment criteria. The father of a child in the present study had to be (a) married to the mother of the child and (b) able to speak Hebrew (the latter in order to ensure adequate completion of the questionnaire set).

The group of fathers of a child with normal hearing was matched to the hearing loss group based on the children's age, $M = 5.06$, $SD = 1.07$, and $M = 5.21$, $SD = 0.99$, respectively, $t(72) = 0.65$, $p > .05$; on the children's sex, 20 boys and 16 girls and 19 boys and 19 girls, respectively, $\chi^2(1) = 0.23$, $p > .05$; and on the fathers' education level, $\chi^2(4) = 4.79$, $p > .05$. As the t values and chi-square values show, no significant differences emerged between the two groups on any of the demographic variables.

Instruments

Fathers completed four questionnaires, and mothers completed the father involvement scale.

Demographic Questionnaire

The demographic questionnaire included questions on the characteristics of the father, mother, child, and family.

Inventory of Father Involvement

The 34-item Inventory of Father Involvement (Hawkins et al., 2002, adapted to Hebrew by Al-Yagon, 2009) was completed in the first-person voice to obtain fathers' self-reports and in the third-person voice to obtain mothers' ratings of fathers' involvement in the young target child's life. The inventory comprised a global scale and six subscales: parenting and affection, providing support to your spouse, praise and school encouragement, fomenting responsibility, caring and showing interest, and role modeling. Items tapped behavioral, cognitive, affective, and moral/ethical dimensions of fathers' involvement, rated on a 7-point Likert scale (0 = not relevant to 6 = very typical). Previous research on parents' self-reports indicated high Cronbach's alphas for internal consistency of the global scale: .81 among mothers and .93 among fathers (Al-Yagon, 2009).

Parenting Self-Efficacy Questionnaire

The 15-item Parenting Self-Efficacy Questionnaire (Raviv & Bartal, 1995, in Soref et al., 2011) assessed how parents rated their satisfaction with their own parenting skills on a 6-point Likert-type scale, from "not at all satisfied" (1) to "very satisfied" (6), Cronbach's alpha = .87. Factor analysis of a previous sample of mothers who experienced difficulties in raising their children (Elad, 2001) had revealed four factors: positive parental behaviors such as paying attention and helping the child, showing affection, and being involved (5 items); ability to cope with difficulties as a parent, to demand discipline, and to

be consistent in educating the child (5 items); impatient parental behaviors and guilt feelings regarding parental functioning (3 items); and dissatisfaction with and lack of success at parental functioning (2 items). Negative scores were reversed so that higher mean scores indicated higher parenting self-efficacy.

Family Adaptability and Cohesion Evaluation

The 20-item Hebrew adaptation (Teichman & Navon, 1990) of Olson, Portner, and Lavee's 1985 questionnaire, the Family Adaptability and Cohesion Evaluation (FACES III), was used to tap fathers' perceptions of the degree of emotional cohesiveness and adaptability within the family climate. Items were rated on a 5-point Likert scale ranging from "almost never" (1) to "almost always" (5), with higher total scores indicating greater cohesiveness or adaptability. The cohesion subscale referred to emotional bonding, family boundaries, and time spent together, reflecting the extent to which family members were perceived as connected to or separate from their family (10 items, e.g., "Family members feel closer to other family members than to people outside the family"; $\alpha = .85$). The adaptability subscale referred to leadership, discipline, roles, and negotiation, reflecting the extent to which the family system was perceived as flexible and able to change (10 items, e.g., "We shift household responsibilities from person to person"; $\alpha = .67$).

Procedure

The examiner (a research assistant) approached fathers of young children with hearing loss who attended MICHA preschools and asked them to volunteer to participate in the present study. MICHA provided these children

and their families with services in all aspects of child development. Of the 83 fathers who were approached, 38 agreed to participate (45.78%). The fathers completed the questionnaires in their free time and returned them to the examiner. Equipped with this sample of fathers of a child with hearing loss, the examiner then approached fathers of children with normal hearing in the same preschools who matched the hearing loss group on paternal education and child's age and sex. Of the 84 fathers approached, 36 agreed to participate (42.86%). Demographic information on these fathers was obtained through their children's kindergarten teachers.

Results

The total sample of fathers reported a high level of parental involvement ($M = 5.15$ on a 0–6 scale, $SD = 0.67$, $\alpha = .81$), as well as a high level of parenting self-efficacy ($M = 4.97$ on a 1–6 scale, $SD = .61$, $\alpha = .88$). Fathers also reported a high level of family cohesion ($M = 4.21$ on a 1–5 scale, $SD = 0.42$, $\alpha = .72$), whereas the perceived level of family adaptability was moderate ($M = 2.83$ on a 1–5 scale, $SD = 0.49$, $\alpha = .65$). These findings indicated appropriate family adjustability.

The Two Groups and Two Reporting Sources

Among fathers of children with hearing loss, the mean level of self-reported involvement was 5.17 on a 0–6 scale ($SD = 0.70$); the mean level of paternal involvement assigned by mothers was 5.12 ($SD = 0.61$). Among fathers of children with normal hearing, the mean for self-reported involvement was 5.14 ($SD = 0.65$). The mean for mother-reported paternal involvement was 5.13 ($SD = 0.75$).

Two-way analysis of variance (ANOVA) with repeated measures for reporter (father/mother) and for

group (normal hearing/hearing loss) as the independent variable revealed no significant main effect for group, $F(1, 72) = .01, p > .05$, or for reporter, $F(1, 72) = .22, p > .05$, and no significant group x reporter interaction, $F(1, 72) = .09, p > .05$. Pearson product-moment correlation between the fathers' self-reports and the mothers' reports about the fathers' involvement showed a high positive correlation ($r = .61$).

Fathers' Characteristics

As shown in Table 1, high positive correlations emerged between fathers' involvement and father-perceived parenting self-efficacy for both reporting sources (fathers' self-reports and mothers' reports about the fathers). In addition, negative correlations emerged between self-reported parental involvement and fathers' professional status as well as fathers' amount of working hours. In other words, fathers reported that they were more involved with their chil-

dren when their professional status was lower and when they spent fewer hours at work.

We conducted two hierarchic regressions to examine whether group (i.e., fathers of children with normal hearing and fathers of children with hearing loss) moderated the relations between fathers' parental involvement and parenting self-efficacy. One regression examined self-reports and the other examined mothers' reports (see Table 2). Each regression was conducted in two phases, with self-efficacy and group inserted first and the interactions between the variables inserted second.

The results for fathers' self-reported involvement revealed no significant interaction between self-efficacy and group, but a significant interaction did emerge between self-efficacy and group for mother-rated paternal involvement. To test and probe the interaction we used Preacher, Curran and Bauer's (2006) method. Inspection of the sources of the interaction

Table 1
Pearson Product-Moment Correlations Between Fathers' Involvement and Study Variables

Variable	Father involvement	
	Self-reported	Mother reported
Father characteristics		
Self-reported involvement	—	.61***
Self-efficacy	.55***	.43***
Education level	-.17	.07
Professional status	-.26*	.01
Working hours	-.20*	-.17
Family characteristics		
Family adaptability	.30**	.22*
Family cohesion	.33**	.30**
Child characteristics		
Child's age	.11	.09
Mother characteristics		
Education level	-.24*	-.08
Professional status	-.34**	-.20
Working hours	.11	.00

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

Table 2
Standardized Regression Coefficients of Self-Efficacy and Hearing Status for Father's Involvement

Predictor	Source of involvement			
	Self-reported		Mother reported	
	ΔR^2	β	ΔF^2	β
Step 1	.31***		.19**	
Group		-.11		-.06
Self-efficacy		.56***		.44***
Step 2	.001		.04*	
Group x self-efficacy		.05		.29*
Total F^2	.31***		.23***	
N	74		74	

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

(see Figure 1) revealed a positive significant correlation between fathers' perceived self-efficacy and mother-reported paternal involvement only for the normal hearing group, $b = .45$, $t(70) = 4.36$, $p < .001$, not for the hearing loss group, $b = .16$, $t(70) = 1.65$, $p > .05$. Only in families with normally hearing preschoolers were fathers who felt more competent as

parents seen by their wives as more involved in child rearing.

Family Characteristics

As Table 1 shows, significant positive correlations emerged between fathers' involvement and the two father-perceived family measures (family adaptability and cohesion) for both reporting sources, although stronger

correlations emerged for paternal self-reports than for mothers' reports.

We conducted four hierarchic regressions to examine whether group (fathers of children with normal hearing and fathers of children with hearing loss) moderated the relations between fathers' parental involvement and the two father-rated family climate variables: cohesion and adaptability. Two regression analyses examined self-reported involvement (for cohesion and adaptability, respectively), and the other two examined mother-reported involvement (for cohesion and adaptability, respectively). Each regression analysis was conducted in two phases, with family cohesion and adaptability and group inserted first and the interactions between the variables inserted second.

The results revealed no significant interaction between family adaptability and group for either reporting source regarding fathers' involvement. Neither did a significant interaction emerge between family cohesion and group for the fathers' self-reported involvement. However, a significant interaction did emerge between family cohesion and group on mother-rated paternal involvement (see Table 3). Inspection of the sources of the interaction (see Figure 2) revealed a positive significant correlation between father perceptions of family cohesion and mother-reported paternal involvement only for the normal hearing group, $b = .40$, $t(70) = 3.43$, $p < .01$, not for the hearing loss group, $b = .06$, $t(70) = .57$, $p > .05$. Only in families with normally hearing preschoolers were fathers who perceived their families as more cohesive seen by their wives as more involved in child rearing.

Children's Characteristics

As Table 1 shows, no significant correlation was found between fathers' level of involvement and their child's age.

Figure 1
Interaction Between Self-Efficacy and Hearing Status for Father's Involvement as Reported by the Mothers

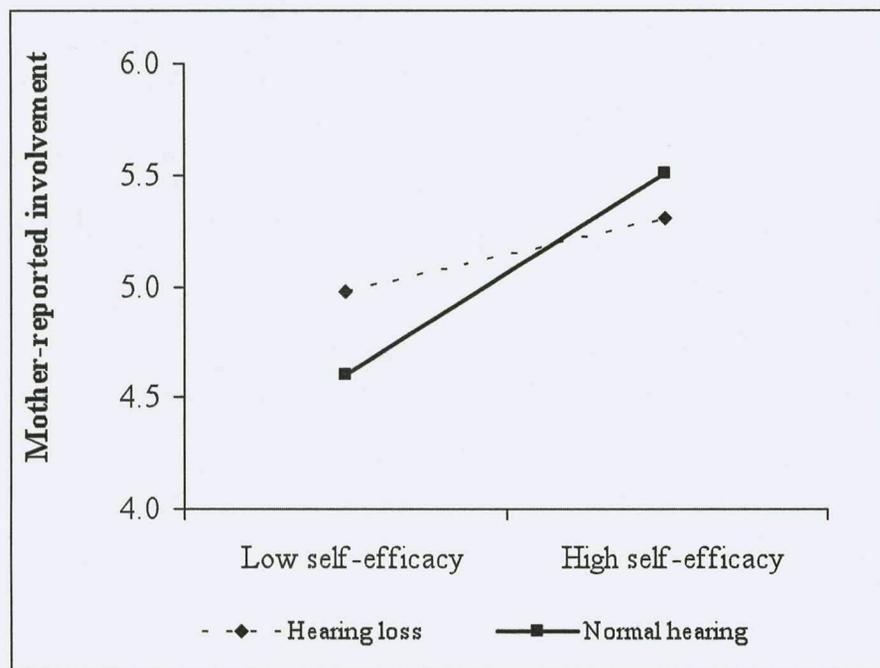


Table 3
Standardized Regression Coefficients of Family Variables and Hearing Status for Father's Involvement

Predictor	Source of involvement							
	Self-reported		Mother reported		Self-reported		Mother reported	
	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	.12**		.10*		.09*		.05	
Group		-.13		-.09		-.04		-.01
Cohesion		.37**		.33**		—		—
Adaptability		—		—		.30**		.22
Step 2	.03		.06*		.00		.01	
Group x cohesion		.25		.34*		—		—
Group x adaptability		—		—		.01		-.12
Total R^2	.16**		.16**		.09		.05	
N	74		74		74		74	

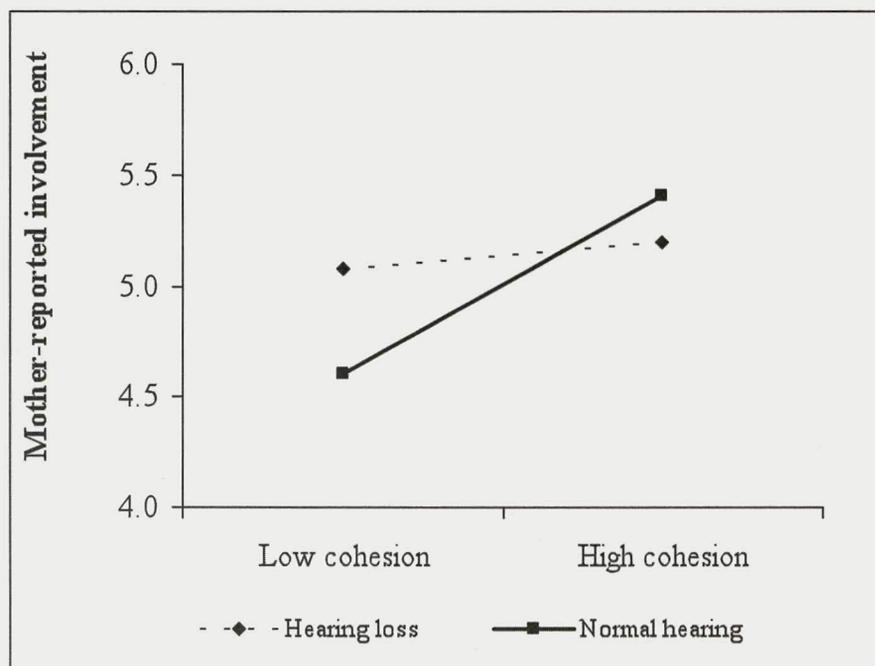
* $p < .05$. ** $p < .01$. *** $p < .001$.

Thirty-nine of the men in the sample were fathers of boys, and 35 were fathers of girls. Two-way ANOVA—child's gender x group (fathers of children with hearing loss and fathers of children with normal hearing)—revealed no significant difference in self-reported parental involvement between fathers of preschool-age

sons and fathers of preschool-age daughters ($M = 5.26$ and $M = 5.03$, respectively, on a 0–6 scale), $F(1, 70) = 2.21, p > .05$. No significant difference was found between groups, $F(1, 70) = 0.08, p > .05$, nor any significant interaction, $F(1, 70) = .03, p > .05$. Likewise, the two-way ANOVA for the mothers' reports about fathers' in-

volvement—child's gender x group (fathers of children with hearing loss and fathers of children with normal hearing)—revealed no significant difference between fathers of preschool-age sons and fathers of preschool-age daughters, $M = 5.12$ and $M = 5.12$, respectively, $F(1, 70) = 0.001, p > .05$. No significant difference was found between groups, $F(1, 70) = 0.01, p > .05$, and no significant interaction $F(1, 70) = 1.00, p > .05$.

Figure 2
Interaction Between Family Cohesion and Hearing Status on Father's Involvement as Reported by the Mothers



Mothers' Characteristics

As shown in Table 1, fathers' self-reported level of involvement correlated negatively with mothers' level of education and professional status. That is, fathers reported more involvement when their wives' education level and professional status were lower.

Discussion

The present study examined fathers' level of involvement in their children's development, education, and upbringing by comparing two populations—fathers of preschoolers with hearing loss and fathers of preschoolers with normal hearing—and by tapping two information sources on paternal involvement: fathers' self-

reports and mothers' reports. Results showed no significant difference between the two hearing status groups, for either self-reported paternal involvement or mother-rated paternal involvement. Regardless of their preschool children's hearing status, fathers indicated high levels of involvement in their children's lives. These outcomes contradicted structural theories predicting greater parental involvement in the face of higher demands, and did not support our assumption that fathers of children with hearing loss would be more involved in child rearing in response to these children's greater needs. It should be noted that some previous findings on fathers of children with special needs (i.e., mental retardation and chronic illness) similarly indicated that such fathers were no more involved than fathers of other children (Cummings, 1976; MacDonald & Hastings, 2008; Roach, Orsmond, & Barratt, 1999).

Regarding the two sources of reporting, a high positive correlation emerged between the fathers' and the mothers' reports concerning the fathers' involvement. According to our findings, mothers and fathers in Israel appear to view fathers' involvement similarly, thus providing validation of the high level of paternal involvement among Israeli fathers—an encouraging sign on a sociocultural level. These findings support those of previous studies indicating that maternal attitudes and perceptions have a crucial effect on fathers' involvement in their children's lives (Allen & Hawkins, 1999; Bonney et al., 1999; Lamb, 1986; McBride et al., 2005; McBride & Rane, 1998; Parke, 2003). These studies suggest that despite great progress toward egalitarian roles and values in parenting over recent decades, mothers may continue to act as the "gatekeepers" of fathers'

involvement in their children's care by encouraging or discouraging fathers' contribution. Mothers may invite fathers to be involved in order to reduce their own parenting burden and to improve the father-child relationship, or, on the other hand, may feel ambivalent about giving up their traditional central role and may consciously or unconsciously block the father's involvement in the child's life.

In the present study, we also investigated the father, family, and child characteristics related to fathers' parental involvement, in order to tap the variety of factors that possibly elicit fathers' involvement in their young children's upbringing: the father's attitudes and values, the particular family's coping strategies, and the child's types of needs (Dollahite, 2004).

Fathers' Characteristics

Our finding in the present study that fathers who reported feeling higher self-efficacy as a parent also revealed higher parental involvement (both self-reported and mother reported) supports previous findings indicating that fathers' self-reported level of efficacy predicted their degree of involvement in their child's education and development (Beitel & Parke, 1998). Other previous studies have indicated that between parenting self-efficacy and different child-rearing components (e.g., recognition of and responsiveness to the child, parental acceptance, dealing with problems) there are links that reflect the level of support the father gives the child and how interested and invested the father is in the child's upbringing (Coleman & Karraker, 1997; Elad, 2001; Teti & Gelfand, 1991).

Surprisingly, the results indicated no significant interaction between self-efficacy and hearing group for fathers' self-reports about their involvement. However, a significant interaction did

emerge between fathers' parenting self-efficacy and hearing group in the mothers' ratings of paternal involvement. Fathers who felt more competent as parents were seen by their wives as more involved in child rearing only in families that included normally hearing preschoolers. A possible explanation for these findings may be that when it comes to children with hearing loss, the father's involvement is not necessarily related to the mother's perceptions, but rather is more closely related to the father's own self-efficacy perception and his commitment to his role as a parent, and to whether the child needs his support and involvement. But when it comes to normally hearing children, maternal perceptions about fathers' involvement are related to fathers' actual involvement (Allen & Hawkins, 1999; McBride et al., 2005; McBride & Rane, 1998). This issue merits further research.

Another finding concerning paternal variables was the significant negative correlation that emerged between fathers' working hours and their level of involvement. A greater number of hours spent working correlated with reduced involvement in children's upbringing. This finding may be explained by the influence of fathers' availability on their involvement. Previous studies have found that fathers' involvement increased when mothers worked more hours and fathers worked fewer hours (Aldous et al., 1998; Holmesa & Hustonb, 2010). Interestingly, the present study found no significant correlation between mothers' working hours and fathers' involvement. This finding suggests that despite social changes such as mothers' growing presence in the labor market and mounting recognition of fathers' contribution to children's development, the responsibility of raising children appears to continue to

rest primarily with mothers (Barnett & Gareis, 2007; Doherty et al., 1998).

Fathers' higher professional status was also found to correlate with self-reports of lower levels of involvement. This finding is consistent with those of studies showing greater involvement with children by fathers with lower occupational status (Hakoama & Ready, 2011). One explanation may be that fathers in high-status jobs must invest considerable time and energy in order to be successful at work, and are therefore less available to their children (Pleck & Hofferth, 2008).

Similarly, mothers' higher professional status and education levels were linked to lower levels of self-reported paternal involvement. A possible explanation for this finding is that women who are more educated and have higher occupational status are forced to balance between their career and their maternal role, and are ambivalent about the involvement of their husbands. On the one hand, they are interested in encouraging the father's involvement in their child's upbringing, but on the other hand, they do not want to relinquish their own maternal role and thus, as gatekeepers, discourage the father's involvement (Allen & Hawkins, 1999; McBride et al., 2005).

Family Characteristics

The present study found that fathers' perceptions of their families as more adaptable and cohesive were linked to greater paternal involvement in children's upbringing, as reported by both the father and the mother. Family cohesion, the emotional bond that family members feel toward each other, reflects family members' degree of connection, involvement, or separation from one another (Olson et al., 1983). Therefore, a high level of cohesion—as perceived by the fathers in the present study—reflects high in-

volvement. Similarly, family adaptability reflects the family's coping style and sharing of roles (Olson et al., 1983). Therefore, in families with a balanced level of adaptability—as perceived by the fathers in the present study—parents share parental roles with each other, are flexible as necessary, and adjust themselves to situations, thereby leaving room for fathers' involvement.

Interestingly, we found a significant interaction between family cohesion and group only for mother-rated paternal involvement. Fathers who perceived their families as more cohesive were seen by their wives as more involved in child rearing only in families with normally hearing preschoolers. There were no such significant interactions in the hearing loss group or, in either group, for fathers' self-reported involvement. This finding can be understood in terms of Bronfenbrenner's (1992) concept that children with special needs cannot be raised in isolation from the family system context. Perhaps the lack of such an interaction for the hearing loss group can be explained by the existence of special needs and associated variables in these families, which compelled the fathers to become involved no matter how cohesive the family, or which influenced mothers' perceptions about fathers' involvement beyond the family cohesion variable. On the other hand, in the families of normally hearing children it may be that fathers' perceptions of high cohesiveness in the family (indicated, e.g., by spending more leisure time together or feeling closer to one another than to people outside the family) were linked to mothers' perceptions of higher levels of paternal involvement.

Children's Characteristics

We found no significant correlation between fathers' involvement and chil-

dren's age. Previous studies have reported inconsistent findings regarding children's age. Rouyer et al. (2007) found that some fathers appeared to be more involved in their children's development when the children were younger, whereas Lamb (1986) reported that fathers seemed more comfortable with greater involvement when their children were older. Perhaps the preschool age range in the sample for the present study precluded the emergence of age-related trends (see review in Rouyer et al., 2007). The lack of significant findings in the present study regarding children's age suggests that paternal involvement may be regulated not only by child-related factors but also by other factors within the family, such as its structure and relationships (Harris & Morgan, 1991; Marsiglio, 1991).

Limitations of the Study and Recommendations for Future Research

Several methodological limitations of the present study should be noted. First, due to the small sample size, the study may not have captured the full scope of parenting and related behaviors exhibited by fathers of children with hearing loss. Further investigation should include fathers of children under the age of 3 years, fathers of bilingual-bicultural children, Deaf fathers, and fathers in different family structures: divorced, separated, or single parents. We also recommend study of the correlation between the severity of the child's hearing loss and/or the type of hearing device (cochlear implant or hearing aids) and the father's level of involvement. Second, the present sample included only those fathers of children with hearing loss who agreed to participate. It is possible that those fathers who consented may already have been more involved in parenting than

those who declined, who could present different patterns of behaviors. Hence, until researchers replicate the present study with additional larger samples, generalization of our findings should be done with caution. In particular, cross-cultural replications may enhance the generalizability of our results to families living in countries other than Israel.

In summary, the present research broke new ground in examining the involvement of fathers of children with hearing loss; our results indicated fathers' high levels of involvement, regardless of their children's hearing status. Fathers' involvement in their preschoolers' upbringing was linked to father characteristics, family characteristics, and mothers' perceptions. Outcomes related to mothers' perceptions suggest the need for professionals to encourage mothers to support and enable fathers' involvement. Empowerment of the father will lead to greater feelings of competency and consequently to increased involvement. Future research should trace fathers' involvement along the child's stages of development and should investigate other variables—such as satisfaction derived from marital relations, family structure (two-parent vs. single-parent), and types of child disabilities—that might contribute further to the understanding of fathers' involvement in their children's lives.

Note

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