
The Role of Fathers in Risk for Physical Child Abuse and Neglect: Possible Pathways and Unanswered Questions

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Despite overrepresentation of fathers as perpetrators in cases of severe physical child abuse and neglect, the role they play in shaping risk for physical child abuse and neglect is not yet well understood. This article reviews the possible father pathways that may contribute to physical child abuse and neglect risk and their existing empirical support. The present empirical base implicates a set of sociodemographic factors in physical maltreatment risk, including fathers' absence, age, employment status, and income they provide to the family. As well, paternal psychosocial factors implicated in physical child maltreatment risk include fathers' abuse of substances, their own childhood experiences of maltreatment, the nature of fathers' relationships with mothers, and the direct care they provide to the child. However, the empirical base presently suffers from significant methodological limitations, preventing more definitive identification of risk factors or causal processes. Given this, the present article offers questions and recommendations for future research and prevention.

Keywords: *fathers; physical child abuse; child neglect; prevention*

FATHERS AND MALTREATMENT:

OVERREPRESENTED AND UNDERCONSIDERED

Consideration of the role that fathers play in the risk for future physical child abuse and neglect is long overdue. A growing body of evidence has pointed out that fathers, as well as father figures, are highly over-

represented as perpetrators of physical child abuse, particularly in its most severe forms (e.g., Brewster et al., 1998; Krugman, 1985; Margolin, 1992). For example, Sinal et al.'s (2000) review of inflicted closed-head injury (shaken baby syndrome) cases in North Carolina reported that 44% were perpetrated by fathers and 20% were perpetrated by mothers' boyfriends, in contrast to 7% perpetrated by mothers. Similarly, a review of child-maltreatment-related fatalities in the state of Missouri reported that while 21% of identified perpetrators were biological mothers, 23% were biological fathers, and 44% were unrelated males in the household (Stiffman, Schnitzer, Adam, Kruse, & Ewigman, 2002). Given that fathers provide, on the whole, substantially less direct child care than mothers (Margolin, 1992; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001), these proportions of fathers and possible father surrogates as perpetrators of severe child abuse appear as rather startling.

Despite the overrepresentation of fathers as perpetrators in severe physical child maltreatment, concern for the role of fathers and fathering in the etiology of physical child abuse and neglect has, until very recently, remained largely in the background in child mal-

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treatment research. Lately, however, interest in the role of fathers regarding physical child abuse and neglect has grown in conjunction with increased acknowledgement of the major sociological shifts taking place in relation to fathers' roles in American families more generally. Many have noted the dramatic increase in mothers' participation in the American labor force and the changing nature of both gender relations and child care provision in the United States (Cabrera, Tamis-LeMonda, Bradley, Hofferth, & Lamb, 2000; Marsiglio, Amato, & Day, 2000).

Given these shifts, the role and even the presence of fathers in the rearing of their children have occupied a growing degree of the public's recent attention. Interest in developmental research and public discourse in the 1980s and 1990s initially focused on the connection between fathers' presence (or, more accurately, their absence) and child developmental outcomes. However, developmental researchers have more recently unpacked the father presence-versus-absence dichotomy, refuting preconceived notions that fathers, particularly those viewed as high risk, are uninvolved in parenting and examining more elaborately the role of fathering and fathers' involvement in family life and child well-being (e.g., Danziger & Radin, 1990; Field, 1998; Hossain, Field, Pickens, Malphurs, & Del Valle, 1997; Phares & Compas, 1992; Vandell, Hyde, Plant, & Essex, 1997; Vogel, Boller, Farber, Shannon, & Tamis-LeMonda, 2003).

With respect to physical child abuse and neglect risk, prior research has implicated the influence of fathers rather indirectly. For example, a host of prior studies has observed single parenthood (i.e., single motherhood) as a risk factor for physical child abuse and neglect (e.g., Dubowitz, Hampton, Bithoney, & Newberger, 1987; Gelles, 1989; Schloesser, Pierpont, & Poertner, 1992) but has rarely assessed the nature of fathers' absence or nonresident fathers' involvement as shaping risk or protective elements for future physical child abuse or neglect (Dubowitz, Black, Kerr, Starr, & Harrington, 2000). Similarly, one of the most clearly established empirical patterns found in the literature is the association between low socioeconomic status and risk for child abuse and neglect, especially for physical neglect (e.g., National Research Council, 1993). To date, such research has emphasized the economic and psychosocial stressors that accompany a family's low socioeconomic status rather than the specific economic role played by fathers, as differentiated from that played by mothers, in heightening or reducing physical child abuse and neglect risk.

Prior research examining social network relationships and physical child abuse and neglect has also

rather indirectly suggested an important role for fathers by documenting mothers' problematic relationships with their significant others as a correlate of child maltreatment (e.g., Coohey, 1995; Corse, Schmid, & Trickett, 1990; Kirkham, Schinke, Schilling, & Meltzer, 1986; Straus & Kantor, 1987). Despite such links, there remains little precise understanding of the specific ways that mothers' relationships with fathers shape the family system to potentially heighten physical child abuse and neglect risk or, conversely, to potentially lower such risk in a protective fashion.

In the absence of a well-elaborated empirical base clarifying the role of fathers in physical child abuse and neglect risk, many theoretical lenses have been drawn on to help explain the role of fathers as relevant to physical child abuse and neglect. Each theoretical model places certain elements of fathering in the foreground while placing others in the background, and none accounts for the complete array of fathering factors that might explain their roles in a comprehensive way.

To illustrate,¹ sociobiological theory, for example, emphasizes adaptive behaviors that increase the likelihood of passing on one's genes to future generations and highlights that parents invest and divest effort in child rearing and children based on their genetic closeness (cf. Malkin & Lamb, 1994; Radhakrishna, Bou-Saada, Hunter, Catellier, & Kotch, 2001). Sociobiological theory has been applied as a lens from which to understand higher rates of physical abuse and neglect by stepfathers or mothers' boyfriends; however, it is limited in helping to provide an understanding as to why known biological fathers are also overrepresented as perpetrators of physical abuse and neglect, or why biological mothers maltreat their children who carry reproductive value.

Other theories such as feminist and economic theories also help in understanding various roles that fathers may play within the family. Feminist theory has placed emphasis on fathers' power as related to their gender and the potential abuse of their power in the family context. It has particularly been applied to shed light on the high co-occurrence observed between domestic violence and child maltreatment (Margolin, 1992). Economic theories have been principally helpful in emphasizing the economic role fathers play in family life, providing a useful framework from which to understand the evidence identifying higher physical abuse and, especially, neglect rates in single-mother households and households with unemployed fathers (Gillham et al., 1998; Paxson & Waldfogel, 1999, 2002; Pelton, 1994).

Still other theories such as psychodynamic, family systems, and attachment theories have emphasized fathers' relational patterns within the family, their affective ties (and their origins) in the mother-father dyad, and in parent-child relationship(s). These theories have pointed out, for example, tensions and potential alliances in the adult dyad that contribute to maltreating parenting or problems in the attachment between father and child (Rothbaum, Rosen, Ujiie, & Uchida, 2002). As an example, psychodynamic literature has emphasized the potential for a father or a mother to displace anger toward a child in response to felt abandonment or coercion by the other member of the parental dyad or the potential for role reversal, leading to physical abuse of a child in response to unfulfilled paternal expectations that the child behave like their parent (e.g., Steele, 1987).

An ecological model or framework has often been relied on to help integrate the varied theoretical lenses and empirical patterns that might explain the multiple levels of influence in risk for physical child abuse and neglect (Belsky, 1980; Garbarino, 1977). Although ecologically informed investigations have served, in particular, to underscore the importance of transactional patterns from micro- to macrosystem contexts, neither this broader ecological framework nor more specific theoretical traditions have yet offered a comprehensive explication of the range of biopsychosocial elements of fathering that might shape risk for physical child abuse and neglect. Given this, the present article seeks to examine, in a more multifaceted and comprehensive fashion, the many potential father pathways that may shape physical child abuse and neglect risk and the existing empirical evidence in relation to these pathways. Toward this end, we review prior research that discerns these possible pathways or provides support for their presence, and, at the same time, we offer unanswered questions and research recommendations that would assist in establishing a more complete and empirically grounded understanding of the role that fathers play in physical child abuse and neglect risk.

For this article, given the nascent state of the empirical findings on this subject, we examine the role of fathers in risk for both physical child abuse and physical child neglect. Although empirical investigations increasingly isolate findings with regard to the occurrence of physical child abuse in contrast with child neglect, a substantial proportion of the existing empirical studies specifically examining fathering elements combine findings for both these forms of child maltreatment. Given this, we identify, when available, specific findings from the empirical base for each form of physical child maltreatment. We also specifi-

cally focus in this article on the role of fathers, *per se*, in physical abuse and neglect risk as a point of departure rather than also examining the role of father figures or of other adult males who may have involvement in the homes of families at risk. We recognize that these latter males present an additional set of specialized considerations for physical child abuse and neglect risk beyond the scope of this present review and for which, at present, there is precious little extant empirical information available (cf. Holden & Barker, 2004, for further discussion). Nonetheless, a focused review of fathers' physical child abuse and neglect risk, *per se*, can aid in furthering a next generation of studies that can begin to examine more specialized questions in connection with father figures or other unrelated adult males in the home.

FATHERS' PRESENCE OR ABSENCE AND MALTREATMENT PATHWAYS

Among the earliest and most consistently reported findings implicating the important role of fathers in physical child abuse and neglect risk are those detecting higher maltreatment rates in single-parent (i.e., mother-headed) households (Gelles, 1989; Giovannoni & Billingsley, 1970; Seagull, 1987). In their examination of data from the Third National Incidence Study, Sedlak and Broadhurst (1996) reported that children in single-parent families experienced a 77% greater risk of being harmed by physical abuse and an 87% greater risk of being physically neglected. With respect to physical abuse, some researchers have posited that the absence of fathers contributes to fewer financial, child caring, and emotionally supportive resources available in the home, thus straining the mother's capacity to care for her child and heightening the likelihood she will act in a coercive and abusive fashion (Gelles, 1989; Seagull, 1987). Although some researchers have posited similar pathways explaining the links between physical child neglect and fathers' absence (e.g., Polansky, Chalmers, Bittenwieser, & Williams, 1979), other more recent research has indicated that fathers' absence, by itself, does not predict child-neglect risk (Dubowitz et al., 2000).

Prior studies have documented that father absence is often associated with familial economic deprivation (Black, Dubowitz, & Starr, 1999; McLoyd, 1990; Paxson & Waldfogel, 1999; Pelton, 1994), with, for example, 34% of single-mother-headed households living below the poverty level (as compared with 16% of single-father-headed households; Fields & Casper, 2001). Although poverty continues to be identified as among the most closely associated risk factors for

both physical child abuse (Straus, Gelles, & Steinmetz, 1980) and neglect, especially among the poorest of the poor (Brown, Cohen, Johanson, & Salzinger, 1998; National Research Council, 1993; Pelton, 1994), empirical research is still necessary to directly document the specific pathway from father absence, *per se*, to heightened physical child neglect and abuse risk via family impoverishment.

Complicating the picture, fathers' absence, most often assessed dichotomously in prior studies, does not necessarily denote an absence of fathers' involvement in the life of the child or family. Conversely, fathers' mere presence in the home may not necessarily mean a higher degree of their involvement when compared to those families assessed dichotomously as having absent fathers. Some have emphasized that single-mother homes, in fact, consist of a wide variety of patterns of father and/or other adult male involvement. For example, Radhakrishna et al. (2001) have noted that some single-mother homes involve a comparatively greater number of unrelated adult male figures, which may contribute to greater instability in the mother-child dyad, thereby heightening maltreatment risk.

Whether a father resides at home or not, he may play a variety of roles, economically related and otherwise, that shape a child's safety, risk, and well-being. Other aspects of fatherhood and fathers' involvement in family life may play significant roles in shaping child neglect and abuse risk such as their employment status and age, their own socialization experiences in childhood (particularly those that may be related to abuse or neglect themselves), the characteristics of their relationships with the mother and the child, and their potential use of psychoactive substances.

FATHERS' EMPLOYMENT STATUS, ECONOMIC HARDSHIP, AND PATHWAYS TO CHILD MALTREATMENT

Beyond whether fathers are present or absent in the family, the specific role they play in a family's economic well-being has been linked with physical child abuse and neglect risk. It has long been documented that economic hardship is one of the most consistently identified risk factors for physical child abuse and neglect. For example, a number of prior studies have reported that severe or fatal injuries due to physical abuse and neglect are more likely to be found among families with low annual incomes (e.g., Gelles, 1992; Gill, 1970; Kruttschnitt, McLeod, & Dornfeld, 1994; Sedlak & Broadhurst, 1996; Wolock & Horowitz, 1979). As well, Kruttschnitt et al. (1994) reported that the risk of recurrent abuse appears to be

related to the length of time a family has been in poverty.

Although the majority of such studies have not isolated the ways in which fathers' specific economic contribution to the family may shape maltreatment risk, several studies have identified father-specific aspects of economic hardship that are correlated with physical child abuse and neglect risk. For example, studies have reported that unemployed fathers are far more likely than employed fathers to physically abuse their children (Jones, 1990; Wolfner & Gelles, 1993). One study, using state-level aggregate data, found that states with higher proportions of nonworking fathers also report higher rates of maltreatment (Paxson & Waldfogel, 1999), although these researchers note that caution should be taken in generalizing such findings to individual-level behaviors.

Some researchers have hypothesized that unemployment can lower the male breadwinner's status within the family and that such loss in status might provoke a father to attempt to reassert his authority by engaging in physically abusive and violent behaviors toward the child and/or other family members (e.g., Madge, 1983; Straus, 1974). Studies have reported that fathers who have sustained heavy financial losses tend to become more irritable, tense, and explosive, which in turn increases their tendency to become more punitive toward their children (cf. McLoyd, 1990). It may be that economic losses are perceived as stressful, especially in an uncontrollable way. According to stress theory, it is such uncontrollable stresses that appear to most directly contribute to the breakdown of personal coping capacities (cf. Lefcourt, 1992; Pearlin, 1999) and to thus elicit more negative psychosocial outcomes (e.g., Brosschot et al., 1998; Peeters, Buunk, & Schaufeli, 1995). In relation to parenting, Bugental and colleagues have specifically documented that when parents perceive a loss of control or power in their lives, they tend either to behave coercively toward their children in response, motivated by a desire to regain lost control, or, conversely, to behave in a tenuous or withdrawing fashion toward their children in response to their perceived precarious state of authority (Bugental, Lewis, Lin, Lyon, & Kopeikin, 1999). Such research is particularly instructive because it begins to suggest one potentially important mediating pathway explaining the mechanisms through which fathers' economic pressures may directly shape physical child abuse and neglect risk, thus outlining potential targets for intervention.

Economic hardship has also been closely related to greater transience in residence, lower educational attainment, higher rates of mental health disorders (including substance abuse), and less adequate social

support (Sedlak & Broadhurst, 1996), each of which may also independently influence fathers' problematic parenting as a consequence. Thus, future research is necessary that examines the potentially varied direct and indirect pathways that fathers' economic hardship takes in shaping high-risk fathering behavior and in shaping mothers' own high-risk parenting behavior. Nonetheless, it appears that fathers' economic insecurity and job loss are likely to contribute both directly and indirectly to heightened physical child abuse and neglect risk via multiple pathways.

YOUNG FATHERHOOD AND PATHWAYS TO CHILD MALTREATMENT

As with mothers, the age at which a man becomes a parent may play an important role in the degree to which risk and protective elements may be in place, shaping the potential for physical child abuse and neglect, particularly if this age is a very young one. Prior research suggests that several characteristics of young fatherhood foreshadow the possibility of future child maltreatment. The transition to parenthood is a difficult passage for most. It has been suggested that adolescent fathers, in particular, begin to experience inordinate stress, fear, and negative emotions from the point at which they discover that a woman they have had sexual relations with is pregnant (Elster & Panzarine, 1980; Westney, Cole, & Munford, 1986). Early fatherhood has been linked with more negative parenting attitudes and behaviors, sometimes leading to a withdrawal of involvement in the relationship with the mother and the baby, and to declining satisfaction with parenting more generally (cf. D. B. Miller, 1994).

Various studies have noted that younger fathers are particularly vulnerable to experiencing economic hardships because of their relatively lower educational status and the relatively fewer employment opportunities they face in comparison with older fathers (Bolton, 1987; Elster & Panzarine, 1983; Lamb & Elster, 1985; Rhein et al., 1997; Rivara, Sweeney, & Henderson, 1986; Samuels, Stockdale, & Crase, 1994). However, what has not yet been empirically documented is whether young fatherhood may in some ways interact with or potentiate the influence that financial insecurity plays in shaping future physical child abuse and neglect risk. Like older fathers, younger fathers facing difficult economic circumstances may encounter common challenges in coping with seemingly uncontrollable stresses.

However, young fatherhood presents additional realities that might complicate fathers' relationships

with their children and their partners, potentially heightening physical child abuse and neglect risk. For example, several studies of young fathers have reported their relative lack of preparedness for fatherhood, both cognitively and emotionally (Caparulo & Lonson, 1981; Rivara et al., 1986). Studies have documented that adolescent fathers' knowledge of infant development tends to be deficient and unrealistic (De Lissoy, 1973). Furthermore, Vaz, Smolen and Miller (1983) reported that psychological depression and social isolation were found to be present in almost one third of adolescent fathers studied, conditions closely associated with child maltreatment risk in mothers (e.g., Sidebotham, Golding, & the ALSPAC Study Team, 2001; Whipple & Wilson, 1996). Nonetheless, empirical evidence has yet to directly link young fathers' depression and physical child abuse and neglect risk.

Adolescent fathers have also been reported to be inordinately involved in illicit activities and drug use (Bolton, 1987; Fagot, Pears, Capaldi, Crosby, & Leve, 1998; Larson, Hussey, Gillmore, & Gilchrist, 1996; Rhein et al., 1997) and to have difficulty in controlling their tempers (Bolton, 1987). As with depression, although maternal substance abuse and involvement in illicit activity have been linked with greater physical child abuse and neglect risk, future research can establish whether and to what degree such a link exists for young fathers as well.

It is important to recognize that the role of young paternal age in physical child abuse and neglect risk is a little-understood area, and the existing evidence base rests largely on studies with a variety of methodological limitations, many of which derive from the challenges researchers face in enrolling representative samples of young fathers in research studies. At present, the large majority of studies in this area relies on small numbers of study participants, the majority of whom have been limited to African American and low-income fathers or fathers already identified as at risk.

FATHER'S SUBSTANCE ABUSE AND MALTREATMENT PATHWAYS

Notwithstanding limited empirical evidence concerning young fathers, prior studies have reported clear links between fathers' substance abuse (including alcohol) more generally and heightened risk for both physical abuse and physical neglect (Ammerman, Kolko, Kirisci, Blackson, & Dawes, 1999). Earlier work has reported parental substance abuse to be a strong predictor of risk for subsequent physical child abuse and neglect (Chaffin, Kelleher, & Hollenberg,

1996), and several studies have specifically reported fathers' substance abuse as correlated with physical abuse and neglect. For example, Moss, Mezzich, Yao, Cavaler, and Martin (1995) reported that substance abusing fathers exhibited more than twice the scores on the Child Abuse Potential Inventory than comparison group fathers where no substance abuse was present. Furthermore, drawing from protective services records, Murphy et al. (1991) reported that 59% of the maltreatment (both abuse and neglect) cases that involved substance abuse identified fathers as substance abusers.

Despite this clear correlational evidence identifying fathers' substance abuse as a risk factor, little is known with regard to exactly how fathers' substance abuse may serve to heighten child maltreatment risk (McMahon & Rounsaville, 2002). It appears likely that fathers' substance abuse may influence child maltreatment risk through multiple pathways and in ways that affect other risk and protective factors. Although little is known about what role fathers' substance abuse may play on a family's overall financial stability or its management of stressors, some evidence indicates that paternal substance abuse plays a key role in the functioning of the parental dyad. Paternal substance abuse has been associated, for example, with maternal substance abuse (Barnett & Fagan, 1993) and domestic violence (Bennett & Lawson, 1994), both of which have high comorbidity with physical child abuse and neglect (e.g., Edleson, 1999; Magura & Laudet, 1996). Male partners have been found to influence a woman's introduction to alcohol or substance use, including the use of harder drugs (e.g., Amaro & Hardy-Fanta, 1995). Once involved in drug or alcohol abuse, women appear to face far greater odds of experiencing partner violence than women not involved (B. Miller, 1998).

Fathers' substance abuse also conceivably influences their own direct provision of child care linked with both physical neglect and physical abuse. Studies by Eiden and colleagues have found that, in comparison with non-alcoholic fathers, alcoholic fathers are less sensitive and show higher levels of negative affect toward their infants, and their infants are less securely attached (e.g., Eiden, Chavez, & Leonard, 1999; Eiden, Edwards, & Leonard, 2002). It has also been found that fathers' alcoholism is associated with higher paternal irritation with the infant, greater aggression toward the parental partner, and greater maternal antisocial behavior and depression (Eiden & Leonard, 2000; Leonard et al., 2002). Substance and/or alcohol abusing fathers, similar to mothers, may also plausibly show impaired judgment about appropriate parenting expectations or a child's devel-

opmentally appropriate behavior, although this remains to be directly empirically documented.

FATHERS' OWN UPBRINGING AND PATHWAYS TO CHILD MALTREATMENT

Although it is plausible that fathers' own socialization experiences may play an important part in determining fathering behavior deemed as abusive or neglectful, little direct evidence has examined the influence of fathers' childhood experiences on their parenting. A growing literature has sought to identify an intergenerational association between abuse experiences in childhood with current parenting behaviors, although a number of important methodological issues limit these findings, which are most frequently based on cross-sectional, retrospective research designs drawing on parents' own memories (Egeland, 1993; Widom, 1989). Such retrospective studies have variously estimated intergenerational transmission rates of physical child abuse at approximately 30% (Kaufman & Zigler, 1993), with studies reporting rates ranging between 7% and 70% (Belsky, 1993).

Few studies have examined this pattern specific to fathers. In cross-sectional studies, Ferrari (2002) reported that fathers experiencing childhood abuse used physical punishment less frequently with their own children, whereas Merrill, Hervig, and Milner (1996) reported that fathers recalling parental violence toward themselves also reported significantly higher physical child abuse potential. More recent longitudinally executed studies have begun to more clearly outline a modest relationship between childhood abuse and fathers' physical abuse risk, although the present findings are far from conclusive. For example, Horwitz, Widom, McLaughlin, and White (2001) have reported that experiences of childhood abuse and neglect appear to increase the likelihood of subsequent antisocial personality disorder in men, a factor that has been found more prevalent in child abusing parents than nonabusing parents (e.g., Dinwiddie & Bucholz, 1993). In twin-study research controlling for genetic influences on intergenerational patterns of violence for boys, Jaffe, Moffitt, Caspi, Taylor, and Arseneault (2002) reported that domestic violence exposure in early childhood accounted for 5% of the variance in boys (as well as girls) externalizing behavior at 5 years of age. However, neither study examined males' parenting behavior as an outcome of experienced maltreatment in childhood.

More direct evidence linking fathers' childhood maltreatment experiences and their future risk for

abuse or neglect of their own children remains sparse. Doumas, Margolin, and John (1994) reported that males' exposure to marital aggression in their families of origin predicts their own parental (as well as marital) aggression. Similarly, several studies (e.g., Halford, Sanders, & Behrens, 2000; Swinford, DeMaris, Cernkovich, & Giordano, 2000) have reported that male partners who recounted observing or experiencing violence in their family of origin exhibit greater propensity to perpetrate violence with their intimate partners. However, these studies have typically overlooked an examination of males' parenting behavior.

Although social learning theory posits the likely intergenerational link between male socialization experiences and fathering behavior, a highly underexplored area from an empirical standpoint includes ways in which fathers' childhood experiences directly predict their future risk for physically abusing and especially for neglecting their children. Studies examining this linkage will remain highly challenging to execute rigorously given the limitations attendant to retrospective reporting and the challenges of controlling for genetic and other environmental influences in teasing out the unique role of family-of-origin experiences on fathering behaviors (e.g., DiLalla & Gottesman, 1991; Horwitz et al., 2001).

FATHER, MOTHER, AND CHILD INTERACTIONS AND MALTREATMENT PATHWAYS

Direct and indirect evidence indicates that fathers' interactions with mothers play an important role in physical child abuse and neglect risk. Early work by Belsky (1979) notably pointed out that relational qualities of the parental dyad have important correspondences with qualities of the parent-child relationship. Such mutually influential interactional patterns in the father-mother-child triad have been demonstrated across numerous studies. For example, the quality of mothering provided to an infant has been linked with supports the mother receives from her partner, and the quality of the relationship between partners has been shown to predict how both mothers and fathers nurture and respond to their children's needs (Brunelli, Wasserman, Rauh, Alvarado, & Caraballo, 1995; Donovan & Leavitt, 1989; Parks, Lenz, & Jenkins, 1992; Samuels et al., 1994).

Several prior studies have specifically identified a buffering role that fathers' support may play in maternal-child relationships at risk for future physical child abuse and neglect. For example, fathers' support can play a protective role in relation to mothers' depression, shielding infants from negative outcomes (Field, 1998), promoting greater maternal respon-

siveness to their children (Jackson, 1999), and minimizing power-assertive maternal child-rearing attitudes (Brunelli et al., 1995). Similarly, Unger and Wandersman (as cited in Samuels et al., 1994) have shown that teen mothers with positive partner support are less rejecting and punitive toward children. Conversely, some direct empirical evidence suggests that low father support toward the mother is intertwined with mothers' risk for both physical abuse and physical neglect (Kotch et al., 1995; Whipple & Webster-Stratton, 1991). For example, Coohey (1995) reported that, although three quarters of neglectful mothers in her study stated having partners, they also recounted feeling less companionship, less instrumental support, and less exchange of resources from their partners in comparison with matched nonneglectful mothers.

Fathers' direct involvement in child care also predicts qualities of the home environment (Cutrona, Hessling, Bacon, & Russell, 1998) and child developmental outcomes (Feldman, Greenbaum, Mayes, & Erlich, 1997; Hodges, Landis, Day, & Oderberg, 1991), including risk for child neglect (Dubowitz, 1999). Prior studies have noted that fathers often form independent attachments with infants that promote their security, and infants' security of attachment with both mothers and fathers appears to be mutually influenced and interdependent (Field, 1998; Fox, Kimmerly, & Schafer, 1991; Hossain & Roopnarine, 1994). However, evidence suggests that the nature of fathers' involvement with their children likely plays a complex role in directly shaping risk specifically for abuse and neglect risk.

For example, in one of the first studies directly examining fathers' involvement and child neglect risk, Dubowitz et al. (2000) reported that fathers' greater direct involvement with child care was positively linked with higher child neglect risk but that their involvement in other household domains was linked with lower child neglect risk. These researchers suggest that the fathers' greater participation in child care in this study may have been an indicator of mothers' relative unavailability in the child caring role, which itself may have led to heightened child neglect risk. Such empirical findings suggest a complicated and not yet well understood picture of the ways in which fathers' involvement in caring for their children in conjunction with other roles and interactions in the home may heighten and/or reduce physical child maltreatment risk. It is likely that future studies examining this complex interplay will not only require study of both mothers and fathers behaviors simultaneously and in conjunction with one another, but the collection of data from both partners, given

that empirical patterns have been reported differentially across informants (Phares & Compas, 1992).

Particularly in the early phases of parenting, partners must make major adjustments to parenting a new infant in the home, and they face increasing stresses that challenge their relationship and parenting behaviors. Fathers are frequently concerned about what role they will play in parenting, their increasing family burdens, and about what changes are being brought about by the infant's presence (e.g., Guterman, 2000). Mothers are often concerned about the evolving role their partner will play. As well, the relationship between mothers and their partners may pass through a substantial transition, raising the potential for increased conflict and declining satisfaction in the relationship (cf. Nitz, Ketterlinus, & Brandt, 1995; Osofsky et al., 1985).

Mounting evidence underscores that troubled or violent relationships between fathers and mothers appear particularly linked with physical child abuse and neglect risk, and, similarly, that coercive interactions between mothers and fathers appear linked with heightened coercive behaviors toward children (Appel & Holden, 1998; Corse, Schmid, & Trickett, 1990; Dumas, 1986; Edleson, 1999; Kirkham et al., 1986; O'Keefe, 1995; Salzinger et al., 2002; Straus & Gelles, 1986; Straus & Kantor, 1987). For example, Rosenbaum and O'Leary (1981) reported that parents who use physically aggressive tactics to resolve spousal disputes also tend to use similar tactics in disciplining their children. Similarly, according to reports from battered women, violent husbands are less involved in child rearing and use less induction and physical affection and more negative control techniques in their child-rearing practices (Holden & Ritchie, 1991).

In line with these findings, a number of studies have reported that the presence of domestic violence between adult partners is closely associated with physical child abuse and neglect, particularly in its most severe forms. For example, domestic violence was found to be present in 41% of cases of critical and fatal child maltreatment in a state of Oregon review (Oregon Children's Services Division, 1993) and in 40% to 43% of child maltreatment fatalities in child fatality reviews from New York City and the state of Massachusetts (Child Fatality Review Panel, 1993; Felix & McCarthy, 1994). Similarly, studies conducted from hospital settings of children suspected of being maltreated have reported that between 45% and 59% of their mothers showed evidence of being battered by their partners (McKibben, De Vos, & Newberger, 1991; Stark & Flitcraft, 1988).

Aside from heightened risk of direct physical abuse and neglect against the child, interparental violence has been linked with other detrimental mental health sequelae in children, including increased aggression, depression, cognitive delays, and symptoms of post-traumatic stress disorder (Shipman, Rossman, & West, 1999). Given such consequences, children's mere exposure to partner violence (independent of their direct victimization) has been increasingly considered within legal and conceptual definitions of child neglect (e.g., Magen, 1999). The complex interplay among interparental violence and child maltreatment continues to require further empirical unraveling, for example, in tracing the temporal sequencing of varying forms of family violence and neglect when they are found to co-occur and why child and partner abuse co-occur in some families and not in others.

FUTURE DIRECTIONS FOR RESEARCH AND PREVENTION

Recent research has shown that fathers play a key role in the well-being of family members and, particularly, in the quality of child rearing provided in the home by both mothers and fathers. In particular, findings continue to accumulate identifying an important set of father-related factors linked with risk for physical child abuse and neglect (see Table 1). These include key sociodemographic and economic factors such as a father's age, his presence or absence in the home, his employment status, and the degree of job insecurity that he faces. In addition, a number of psychosocial factors related to fathers' experiences and behaviors in the family context also appear to play an important role in shaping families' risk for physical child abuse and neglect, including a father's potential involvement in substance or alcohol abuse, the degree to which he may have experienced maltreatment in his own family of origin, the nature of the direct child-caring activities he provides in the home, and the degree to which he supports or undermines the mother in her parental role, most especially if such parental interactions involve domestic violence. As Table 1 indicates, each of these father factors has some direct or indirect correlational evidence supporting its role in shaping a family's physical child abuse and neglect risk. Such an inventory of factors can begin to hint at the contours of an empirically guided risk and clinical assessment strategy for professionals considering the role of fathers in physical maltreatment risk.

At the same time, such findings raise numerous unanswered questions in relation to how and via what

TABLE 1: Empirical Evidence Supporting the Role of Specific Father Factors in the Risk for Physical Child Abuse and Neglect

<i>Paternal Factor</i>	<i>Indirect Evidence</i>	<i>Direct Correlational Evidence</i>	<i>Causal Pathway Identified</i>
Socioeconomic factors			
Absence		X	
Low income	X		
Unemployed		X	
Job or major financial loss	X		
Young age	X		
Psychosocial factors			
Substance abuse		X	
Family-of-origin maltreatment	X		
Support/undermining of mother		X	
Violence toward mother		X	
Direct provision of child care		X	

specific pathways such elements may directly operate to heighten or reduce maltreatment risk, as the existing empirical base is almost completely devoid of studies that employ causal modeling strategies (e.g., via the use of prospective research designs and such statistical strategies structural equation modeling). As noted earlier, for example, fathers' substance abuse, as with the majority of other factors reviewed herein, may directly and indirectly influence maltreatment risk along a variety of potential pathways, and/or may be a comorbid outcome with child maltreatment, stemming from other causal factors. Similarly, although fathers' unemployment experiences are associated with heightened physical child abuse and neglect risk, it has not yet been clearly established as to which processes mediate and moderate the influence of such experiences on maltreatment risk. Are there, for example, common paternal stress responses, maternal stress responses, or broader familial responses to fathers' unemployment that ultimately lead to detrimental parenting and clear detriment with respect to the child's safety? Knowledge of such mediating and moderating processes would enable professionals to begin to develop prevention strategies that can assist fathers and other family members during periods of unemployment that might mitigate subsequent maltreatment risk.

With regard to some father factors, empirical evidence is available that specifies a role in one parent's (either a mother's or a father's) future abuse or neglect risk. For example, evidence is available indicating that fathers' support or undermining of the mother directly plays a significant role in mothers' parenting behavior. On the other hand, for many fathering factors, such as a father's young age, his use of substances, or his family-of-origin experiences, studies must still trace the differential roles these factors specifically play on each parents' at-risk parent-

ing behavior separately. For example, how does a father's substance abuse shape his own parenting behavior and, differentially, play a role in shaping a mother's interactions with her children? Similarly, in what ways might a father's direct provision of child care both play a role in his own propensity toward physical child abuse or neglect and, separately, influence the mother's own maltreatment propensity?

Limiting the empirical base, the large majority of studies examining fathering and parent-child interaction derive their findings from fathers' self-reports or, more commonly, mothers' reports of fathering behavior rather than from direct observations of fathering behavior itself. However, comparisons of fathers' versus mothers' reports of parenting behavior indicate important differences across informants, emphasizing the need to triangulate the data collected in relation to fathering behavior (Phares & Compas, 1992).

Also limiting the present empirical base, the majority of studies that have examined the potential role that fathers may play in physical child abuse and neglect have examined both physical child abuse and neglect jointly and have only recently begun to separate physical neglect from physical abuse outcome findings (e.g., Dubowitz et al., 2000). It is highly plausible, however, that different father-related factors may play unique roles across these forms of child maltreatment. For example, might socioeconomic factors such as job loss or low income play different roles in shaping risk for physical child abuse as opposed to physical child neglect? Similarly, in what ways might fathers' direct involvement in child caring predict physical child abuse versus physical child neglect risk? It is likely that differential father pathways are discernible across these forms of child maltreatment and across the maltreating perpetrator, mother or father.

A looming, unanswered question with respect to fathers' roles in physical maltreatment risk is the way that culture shapes fathers' roles in family life and how such variations may alter physical child abuse and neglect risk. The vast majority of studies reviewed in this article have examined either White or African American fathers and have not specifically examined the role of cultural factors in maltreatment risk. Studies examining ethnicity in the context of physical child abuse and neglect have most often reported findings on mothers alone (e.g., Cooney, 2001) or have not separately examined fathers from mothers in their analyses (e.g., Wissow, 2001). We are aware of only one study that has compared fathering behaviors and outcomes across cultures vis-à-vis physical child abuse and neglect risk (Ferrari, 2002), which preliminarily reported that Latino ethnicity and value placed on machismo and familism played significant roles in predicting fathers' use of physical punishment. Several studies examining close proxies of physical child abuse and neglect have similarly reported important fathering differences across cultures. In a nationally representative sample of two-parent families, Hofferth (2003), for example, found African American fathers exhibiting less warmth, more control, and more responsibility toward their children than White fathers, and White fathers exhibiting more control and less responsibility for their children than Latino fathers.

These limitations in the existing empirical base prevent a more comprehensive and precise understanding of fathers' roles in physical child abuse and neglect risk. Given the present state of the empirical base, we offer the following set of recommendations for the next generation of studies aiming to advance the knowledge base examining fathers' roles in physical child maltreatment risk.

First, future studies should assess fathers' involvement in family life and child rearing in a multifaceted fashion beyond global indicators (such as presence versus absence or time spent with a child). The early and emerging evidence suggests that father involvement is a highly complex process and may operate in unexpected ways, shaping physical child abuse and neglect risk. Fortunately, the growing empirical base on fathers and fathering more generally is yielding more sophisticated and psychometrically sound assessment measures that can be employed to trace a more multidimensional picture of fathers' influence on family life and child rearing.

Second, given differing findings reported across informants in earlier studies, future studies should move beyond the mere use of maternal self-report, collecting data on behavioral patterns and hypothe-

sized predictors from multiple informants, and especially from fathers themselves. Furthermore, parent-child observational coding systems (cf. Eyberg & Robinson, 1982; Roberts, 2001) can be readily adapted to track fathers' interactions with their children to cross-validate and track informant biases of either parent about fathering behavior.

Third, future studies should attempt to document father-relevant factors as predictors of each parents' (mothers' versus fathers') at-risk behavior separately, as influential processes may operate differentially across parents and/or operate in an interactional pattern between parents.

Fourth, future studies should track physical child abuse and physical child neglect risk as separate outcomes rather than combining both as a single outcome of interest. Early evidence suggests that although each of these forms of maltreatment may share some overlapping etiological elements, fathering factors may likely operate differentially across types.

Fifth, future studies should attempt to more precisely tease out causal directionality in fathering factors under study, and the mediating and moderating processes that accompany these factors, so as to enable more relevant application to intervention and prevention purposes. Toward this end, prospective research designs drawing from population-based studies offer distinct methodological advantages over retrospective designs using clinically based samples (Guterman, 2004; Widom, Raphael, & DuMont, 2004). In addition, the employment of multivariate techniques, especially the use of causal modeling strategies (such as structural equation modeling), will hold the greatest potential to identify causal pathways, their directionality, and important mediating and interactional processes.

Finally, early findings on cultural differences in fathering indicate that future research must begin to more explicitly trace cultural elements that might shape fathers' contribution to the risk and protective elements predicting child maltreatment risk. These may minimally include such culturally based elements as fathers' attitudes and behaviors concerning gender relations, power assertion, and child care, as well as culturally based expectations about fathers' roles as economic providers, especially given these factors' identified links with risk status for physical child abuse and neglect.

Clear opportunities exist to achieve major advances in developing a more comprehensive and detailed understanding of the father pathways that determine physical child abuse and neglect risk. Such knowledge, once attained, will provide direct guid-

ance to those aimed at engaging and working with fathers and their families in ways that can reduce their risk for future physical child abuse and neglect. Although professionals working to avert and to reduce physical child abuse and neglect risk must consider how best to address fathers' roles in family life, they presently face precious little available empirically validated knowledge that can guide their practices. The evidence base has clearly established that fathers play an important role in physical child abuse and neglect, and, given this, it is essential to begin to develop intervention strategies and models that address fathers' needs and motivation for services, their risk profiles, their help-seeking patterns, as well as intervention strategies to engage and work with fathers in ways that help to enhance the protective elements and minimize the risk elements shaping physical child abuse and neglect. Given the inordinate role that fathers play in the most severe cases of physical child abuse and neglect risk, empirical advances that help develop an understanding of and an effective response toward at-risk fathers are likely to make a major contribution to protecting the lives and safety of vulnerable children.

NOTE

1. This article does not purport to comprehensively review and explore all the many theoretical perspectives relevant to fathering and child maltreatment. Rather, the theories noted here are examples of a selection of possible theoretical applications to the problem, highlighting the limits to which any single one can explain the expanding empirical base.

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