The influence of fathers on their teenage children has long been overlooked.
Now researchers are finding surprising ways in which dads make a difference


By Paul Raeburn I Photoillustrations by C.J. Burton

# In 2011 administrators at Frayser High School in Memphis, Tenn., came to a disturbing realization. About one in five of its female students was either pregnant or had recently given birth. City officials disputed the exact figures, but they admitted that Frayser had a problem. The president of a local nonprofit aimed at helping girls blamed the disturbing rate of teen pregnancy on television. 

She pointed to the MTV shows 16 and Pregnant and Teen Mom. "So much of our society is sexually oriented," she said, arguing that the fixation on sex was enticing girls to have unprotected sex earlier and more often. A lot of us might say the same thing. We know that teenagers are impressionable, and the idea that they would be swayed by MTV makes sense.

But psychologists Sarah E. Hill and Danielle J. DelPriore, both at Texas Christian University, took note of a more subtle fact about Tennessee. Nearly one in four households was headed by a single mother. For Hill and DelPriore, that observation was a tip-off that something entirely different was going on. "Researchers have revealed a robust association between father absence-both physical and psychological-and accelerated reproductive development and sexual risk-taking in daughters," they wrote in a 2013 paper. You might expect sexual maturation to be deeply inscribed in a teenager's genes and thus not likely to be affected by something as arbitrary and unpredictable as whether or not girls live in the same house as

## FAST FACTS

## OF FATHERS AND TEENS

(1) Fathers have long been neglected in research on child and family psychology, but recent work is identifying numerous ways in which they affect the development of their teenage children.
2. Among them are unexpected effects on the reproductive development of daughters and the cultivation of empathy in children of both sexes.
(3) The new research suggests that a father's love and acceptance are at least as important as the love and acceptance of a mother.
their father. Yet the association is quite clear. The problem comes in trying to explain it. How could a change in a girl's environment-the departure of her father-influence something as central to biology as her reproductive development?

I put that question to Hill. "When Dad is absent," she explained, "it basically provides young girls with a cue about what the future holds in terms of the mating system they are born into." When a girl's family is disrupted, and her father leaves or is not close to her, she sees her future: men don't stay for long, and her partner might not stick around either. So finding a man requires quick action. The sooner she is ready to have children, the better. She cannot consciously decide to enter puberty earlier, but her biology takes over, subconsciously. "This would help facilitate what we call, in evolutionary sciences, a faster reproductive strategy," Hill said.

In contrast, a girl who grows up in a family in which the bond between her parents is more secure and who has a father who lives in the home might well (subconsciously) adopt a slower reproductive strategy. She might conclude that she can take a bit more time to start having children. She can be more thorough in her preparation. "If you're going to have two invested parents, you're investing more reproductive resources. If the expectation is you are not going to receive these investments, you should shift toward the faster strategy," Hill explained.

## The Missing Link

For a long time, until women began entering the workforce in bigger numbers in the 1960 s and 1970 s, fathers had a uniquely valuable familial role to play. They brought home the paychecks that housed and fed their families and provided a


## The discovery of the father is one of the most important developments in the study of children and families. Our failure to address the question of fathers' value is more than simply a matter of academic bickering.

bickering. It is reflected in the shape of the American family. Fathers are disappearing: fewer dads are participating in the lives of their children now than at any time since the U.S. began keeping records. This shift matters because the effects of a missing father can be profound and counterintui-tive-as in the age at which a daughter enters puberty.

## Daughters at Risk

Yet the links between puberty and a father's presence are just associations. They do not reveal what causes these changes. In the ideal experiment that would answer this question, we would assemble a group of families and randomly assign some of the fathers to abandon their families and others to stay. Obviously, this proposal is not likely to win approval from an ethics board. So what is the next best thing? Hill and DelPriore designed an experiment in which young women-some of them teenagers and others just past their teen years-were asked to write about an incident in which their father supported them and then were encouraged to write about a time he was not there for them. Then they were asked about their attitudes toward sexual behavior. If the researchers' hypothesis was correct, memories of unpleasant father experiences would

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lead the young women to express more favorable views of risky sexual behavior. Pleasant memories of their fathers should push them in the opposite direction.

And that is what happened. Women became "more sexually unrestricted" after recalling an incident in which their father was disengaged, Hill explained. Further experiments showed that father disengagement did not change women's views of other kinds of risky behavior; for instance, they were not more likely to ride a bike without a helmet. The effect was limited to sex.

Hill told me that her research rests heavily on work by Bruce J. Ellis of the University of Arizona, who helped to establish the connection between father absence and adverse outcomes for daughters. Ellis calls himself an evolutionary developmental psychologist. He wants to know whether Charles

Darwin's theory of natural selection can help explain how children's environments shape their development-precisely the question that came up in Hill's study. His research on fathers began in 1991, with efforts to test an interesting theory. The idea was that early childhood experiences could change the way children later seek their mates. Early experience seems to "set" the reproductive strategy that girls use later in their lives. This is not true of boys, possibly because they have a different reproductive strategy.

In a series of studies beginning in 1999, he found that when girls had a warm relationship with their fathers and spent a lot of time with them in the first five to seven years of their lives, they had a reduced risk of early puberty, early initiation of sex and teen pregnancy. As Ellis continued this work, however, he became increasingly frustrated. Clearly,

# BUILD YOUR OWN FAMILY Not all families have two deeply committed parents. <br> For everyone else, here are the essentials for raising kids right 

By Roni Jacobson

Single-parent households are a fact of life. One in four children in the U.S. lives with only one parent, usually a single mom, according to census data. Yet a child without two committed parents need not face a disadvantage because of that fact.

Distilling a large body of research down to its essentials reveals a few key factors. The most important elements of child rearing are not the identity or gender of the adults involved but the quality of care coming from those people, as well as its consistency over the years. In cases where one parent is absent, unreliable or uncommitted, research suggests that families keep the following priorities in mind.

## COMMIT

Raising a child has always been tough, but rarely does one parent manage it alone. In a study on fragile families by a group of researchers at Columbia University and Princeton University, only 17 percent of single moms reported that they were raising their

teachers, coaches or religious leaders can provide support, as long as those commitments are enduring. The mentoring organization Big Brothers Big Sisters, for example, requires volunteers to commit for at least a year, with the average mentor-mentee relationship lasting two years and three months.

## COLLABORATE

The harsh reality, though, is that the primary parent in a
children completely on their own-most of them had help from the child's father, their own parents, other relatives or friends.

Yet consistency is key. "It's not enough that there just be an adult that's on dutyone year it's the mom, the next year it's the grandma, the next year it's the biological father. You need somebody who is going to be there for the long haul," says Anne Martin, a developmental psychologist at Columbia University. "The child needs to feel safe and secure in his or her environment to grow intellectually and emotionally."

For older children, mentors such as
amily often struggles to find fractured family often struggles to find someone who can shoulder a decade or more of unflagging support. Take that study from Columbia and Princeton: most of the unmarried fathers initially said they wanted to be involved in their child's life. Yet three years after their baby's birth, almost half of the fathers living apart had not been in recent contact with their child.

One way to help engage these dads and other caregivers is to focus on their relationship with the mother. Clinical psychologist Kyle Pruett of the Yale University Child Study Center highlights this variable in his efforts
the association between fathers and daughters was profound. Yet he could not determine whether the parental behavior caused the consequences he was seeing in the daughters. An alternative was that girls who begin puberty early and engage in risky sexual behavior do so because they inherited certain genes from their parents. Fathers might pass on genes linked to infidelity to their daughters, in whom they could be associated with risky sexual behavior and early puberty. Or something else in the family's environment could be responsible for the changes in their daughters.

Ellis came up with an innovative way to pose the question. He considered families in which divorced parents had two daughters separated by at least five years in age. When the parents divorced, the older sister would have had five more years with a father's consistent presence than the younger sister. If
> "The great emphasis on mothers and mothering in America has led to an inappropriate tendency to blame mothers for children's behavior problems and maladjustment when, in fact, fathers are often more implicated than mothers in the development of problems such as these," Rohner says.
to bring unengaged fathers into their children's life. "Focusing on the men alone turned out to be a waste of money and research efforts," Pruett says. "We have found that the best way to support the mother is not to deal with the father separately but to deal with him in context with her."

According to Pruett, many moms must first learn to accept that their helper will have a different parenting style than they do and not try to mold the other caregiver's behaviors to mimic her own. Duplicating efforts can even backfire, as researchers at Ohio State University found in a study published in 2011. One year after resident fathers took over parenting tasks from a mother, the couples in the study had become more combative and more inclined to undermine each other. A better strategy, the authors suggest, is for the two to decide together on their different spheres of influence, perhaps with one parent in charge of bathing and the other in control of preparing meals.

A positive relationship between caregivers can have a major impact on a child's psychological development. In a 2013 study of African-American families, researchers at the University of Vermont and the University of North Carolina at Chapel Hill found that the better the relationship between a single mother and her primary helper, the fewer mental health and behavioral problems in the children. A better bond can also reinforce nonresident fathers' commitment to
their kids. In a 2008 study led by sociologists Marcia Carlson and Lawrence Berger of the University of Wisconsin-Madison, fathers who lived apart but exhibited good communication and teamwork with a child's mom were more likely to still be involved in their children's life five years after they were born, regardless of whether the parents were romantically involved.

## ENGAGE

Women today continue to perform the majority of primary caregiving tasks, such as feeding, bathing and comforting children. Fathers, on the other hand, tend to take part in supplementary activities, such as play, which matter less to a child's survival but assist their cognitive development. As a result, the quality of their involvement appears to matter more for children than the quantity.

In a 2013 study of fathers living apart from their biological children, for instance, scientists at the University of Connecticut and Tufts University found that neither monetary contributions nor the frequency of visits had a significant effect on the child's well-being. Rather the critical factor was how often the father engaged in child-centered activities, such as helping with homework, playing together, or attending sports events and school plays.

This kind of involvement promotes cognitive development by "stretching the child's current level of ability, building on what they
know right now and expanding it," Martin says. Known as scaffolding, such engagement helps children develop logical reasoning and problem-solving skills that translate into various situations in life. In households with two married, biological parents, both mothers and fathers tend to scaffold equally. Children living apart from their fathers, however, are less likely to receive the same exposure to cognitively stimulating activities, according to a 2013 study by Carlson and Berger.

Helper parents are therefore especially important for promoting children's intellectual growth. A recent review in the Journal of Community Psychology found that mentorsincluding relatives, teachers or other involved adults-advance children's academic achievement by introducing them to new ideas and experiences and finding "teachable moments" that challenge them to think critically.

Knowledge building can happen anywhere, not only on outings to museums or in the classroom but also at dinner, while playing, or when driving to and from soccer practice. The key, researchers say, is paying attention to what children are interested in and following their lead.

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father absence causes early puberty and risky behavior, then the younger daughter should show more of that behavior than her older sibling. Also, genes or the family's environment would not confuse the results, because those would be the same for both daughters. It was close to a naturally occurring experiment, Ellis realized.

Ellis recruited families with two daughters. Some were families in which the parents divorced; others were intact, to be used as a control group. He wanted to answer two questions: Was the age at which girls had their first menstrual period affected by the length of time they spent with a father in the house? And did that age vary depending on how their fathers behaved? The second question was added because fathers with a history of violence, depression, drug abuse or incarceration can affect children's development.

Ellis's suspicions were confirmed. Younger sisters in divorced families had their first periods an average of 11 months
earlier than their older sisters-but only in homes in which the men behaved badly as fathers. "We were surprised to get as big an effect as we did," Ellis told me. The conclusion was that growing up with emotionally or physically distant fathers in early to middle childhood could be "a key life transition" that alters sexual development.

The next step Ellis took was to look at whether these circumstances could affect the involvement of girls in risky sexual behavior. This time he turned to Craigslist, a classified advertising Web site, and posted announcements in several cities that began, "SISTERS WANTED!" The criteria were very specific: he was looking for families with two sisters at least four years apart in age and currently between the ages of 18 and 36 . He limited his search to families in which the birth parents separated or divorced when the younger sister was younger than 14 years. Ellis and his colleagues were able to recruit 101 pairs of sisters, some from families in which the parents had divorced and, using a different ad, some whose parents had not.

This time the researchers found that risky sexual behavior was not related to how long daughters lived with their fathers but to what the fathers did in the time they spent with their daughters. "Girls who grew up with a high-quality father-who spent more time as a high-investing father-showed the lowest level of risky sexual behavior," Ellis said. "Their younger sisters, who had less time with him, tended to show the highest level of risky sexual behavior."

The next question, then, is exactly how do fathers exert this effect on their daughters? One possible explanation, as unlikely as it might seem, is that a father's scent affects his daughters' behavior. Many animals emit pheromones, chemical messengers that can be picked up by others and can alter their behavior. "There is certainly evidence from animal research, in a number of species, that exposure to the pheromones of unrelated males can accelerate pubertal development and some evidence that exposure to pheromones of a father can slow it down," Ellis explained.

If the same is true of humans, pheromones could help explain how the presence or absence of fathers affects their daughters-although that remains an untested hypothesis.

## Although fathers matter, others can help fill that role. We all know children who grew up in difficult circumstances but now live rich and rewarding lives.

Some research suggests that women who sleep with a male partner have more regular menstrual cycles, perhaps because of the presence of the male's pheromones.

As we finished our conversation, Ellis brought up something I had been wondering about. What effect does father presence or absence have on sons? He told me that we do not yet know about sons. His hypothesis is that a father's involvement could have a different effect on sons, enhancing a competitive urge and spurring sons to achieve more when they grow up and leave the family.

## Warts and All

As parents of teenagers understand, it is often hard to know how to respond to the crises, struggles, school challenges and social difficulties that are a normal part of the passage from childhood to adulthood. What we do matters-but it is so often hard to know what we should do. One key feature of good parenting, however, is to be accepting of teenagers, which again is often easier said than done-especially when they show up with a tattoo or call you from the principal's office.

Ronald P. Rohner of the University of Connecticut has spent some years looking at the consequences for children and teenagers of being either accepted or rejected by their parents. He thinks that parental acceptance influences important aspects of personality. Children who are accepted by their parents are independent and emotionally stable, have strong selfesteem and hold a positive worldview. Those who feel they were rejected show the opposite-hostility, feelings of inadequacy, instability and a negative worldview.

Rohner analyzed data from 36 studies on parental acceptance and rejection and found that they supported his theory. Both maternal and paternal acceptance were associated with these personality characteristics: A father's love and acceptance are, in this regard, at least as important as a mother's love and acceptance. That is not necessarily good news for fathersit increases the demands on them to get this right. "The great emphasis on mothers and mothering in America has led to an inappropriate tendency to blame mothers for children's behavior problems and maladjustment when, in fact, fathers are often more implicated than mothers in the development of problems such as these," Rohner says.

Empathy is another characteristic that we hope teenagers will develop, and fathers seem to have a surprisingly important role here, too. Richard Koestner, a psychologist at McGill University, looked back at 75 men and women who had been part of a study at Yale University in the 1950s, when they were children. When Koestner and his colleagues examined all the factors in the children's lives that might have affected how empathetic they became as adults, one factor dwarfed all others-
how much time their fathers spent with them. "We were amazed to find that how affectionate parents were with their children made no difference in empathy," Koestner says. "And we were astounded at how strong the father's influence was."

Melanie Horn Mallers, a psychologist at California State University, Fullerton, also found that sons who have fond memories of their fathers were more able to handle the day-today stresses of adulthood. Around the same time, a team at the University of Toronto put adults in a functional MRI scanner to assess their reactions to their parents' faces. Mothers' faces elicited more activity in several parts of the brain, including some associated with face processing. The faces of fathers, in contrast, elicited activity in the caudate, a structure associated with feelings of love.

The evidence shows that fathers make unique contributions to their children. It emphatically does not show that children in families without fathers in the home are doomed to failure or anything close to that. Although fathers matter, others can help fill that role [see "Build Your Own Family" on page 48]. We all know children who grew up in difficult circumstances but now live rich and rewarding lives. Not all of them grow up to be the president of the United States, but Barack Obama is an example of what can be achieved by a child who grew up without a father but managed to overcome it.

Fatherhood is about helping children become happy and healthy adults, at ease in the world, and prepared to become fathers (or mothers) themselves. We often say that doing what is best for our kids is the most important thing we do. The new attention to fathers, and the research we have discussed here, should help all of us find our way. M

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