



Humans and the Human Family are Special!



MODULE 1



2. Our families

We have already learned that caring in the human family is very special. Here is a closer look at the members of the human family and how our families are similar to and different from that of other species.



Parents

How does a woman know how to be a mother?

How does a man know how to be a father?

We have gotten a glimpse of the developmental challenges children face. How does a mother know how to guide her child through these challenges? How does a father know how to raise a child? Here are some of the ways parents learn:

1. They may parent the way they were parented.
2. They may think they can rely on “instinct” or “gut reaction.”
3. They may take the advice of friends and relatives.
4. They may read books written by trusted authorities, or take a child development course.
5. They may do what the media says to do, using advertising and sensationalistic reporting to guide their choices.

Only a small percentage of all parents read anything or make use of scientific information to guide their parenting. Yet the United States Government has spent millions of dollars on research, and science can provide many useful guidelines regarding the needs of children and the best way to nurture them. But before we talk more about human moms and dads, let’s take a look at some other parents!

Mothering in other mammals

A mammal is an animal that gives birth to live young and nurses them with milk. Because mammal mothers nurse their young, they invest a great deal of energy into caring for them. But how do mammal mothers know to care for their young and not just leave them after giving birth? How do they know what to do? Scientists have studied mothering in other mammals; three examples are the rat, the sheep and the rhesus monkey.

Rat mothering



Rat mothering is dependent on hormones that are present during pregnancy and birth. Oxytocin is one hormone that is important to rat mothering behavior. However, how a female rat was mothered does affect how she mothers her own pups. A female rat does not recognize her own pups. She will mother any pup she finds. The smell and appearance of pups trigger mothering instincts in the rat mother. When a rat grows up it no longer looks like a pup and the mother rat no longer mothers it.

To learn more read about the science of rat maternal behavior in these articles:

[Oxytocin and mutual communication in mother-infant bonding](#)

[Oxytocin-Dopamine Interactions Mediate Variations in Maternal Behavior in the Rat](#)

Sheep Mothering



Scientists have studied the way mother sheep, called ewes, learn to mother their lambs. Humans watching sheep have known for thousands of years that a ewe will only mother her own lamb. Right after birth, the mother forms a strong bond with her lamb and only directs mothering to that special one. So sheep mothers are selective and not like rat mothers who will mother any pup. But how does the ewe recognize her own lamb? Careful research has shown that the hormone oxytocin acts on the mother's brain to make her sensitive to the smell of her new lamb. This hormone actually enables the brain to rewire itself. Sheep and rats are similar in that mothering behavior is triggered by oxytocin.

Students can read more about sheep maternal behavior in this article:

[Ewe Behavior](#)

Rhesus monkey mothers



Rhesus monkeys live in social groups and are much smarter than rats and sheep. They also spend a longer part of their lives dependent on their mothers, learning how to survive and get along with others. The childhood of a rhesus monkey female greatly affects her ability to mother and rhesus monkeys must learn to be mothers-- a high percentage of their first born babies die because they don't know how to care for them. Mothering in these monkeys is also affected by stress and social status. Low ranking mothers have to protect their infants more from bullying by other group members. This protective behavior has a psychological impact on infants and makes them more fearful. So the way a rhesus monkey mothers changes her infant's personality in predictable ways for life.

Scientists have discovered that even though monkey mothering is practiced and learned it is still affected by a number of hormones especially oxytocin.

Students can learn about how infant abuse is transmitted from one generation to the next in rhesus monkeys in this article:

[Early experience affects the intergenerational transmission of infant abuse in rhesus monkeys](#)



Fathering in other mammals

Fathers care for babies in only a small number of mammal species. Rats, sheep and rhesus monkeys cannot be used to study paternal behavior because the young of these species are not cared for by their fathers. In species where fathers care for young, fathers and mothers have a bond between them. The take home message is that human fathers are very special. The bond between mothers and fathers that makes a family is also very important. The two most studied animal fathers are the prairie vole and the titi monkey.

Prairie vole fathers

We will talk about prairie voles again in later Modules because prairie vole males and females fall in love after they mate! They stay together for life and both parents care for the young. The behavior of prairie vole fathers is affected by hormones and a father's hormone levels change after the young are born. Fathering behavior is also affected by a male's early treatment by his parents and fathering behavior is partly learned. Prairie vole males who spend more time babysitting their brothers and sisters make better fathers. Babysitting is called **alloparenting** by scientists.

To read more about how experience as a babysitter affects prairie vole fathering students can read this article:

[Alloparenting experience affects future parental behavior and reproductive success in prairie voles \(*Microtus ochrogaster*\)](#)

Do you think experience as a babysitter helps human fathers?



Titi monkey fathers



Titi monkeys are from South America. Titi mothers have it made because titi monkey fathers do all the carrying of the babies. The babies are strongly bonded to their fathers, perhaps even more than to their mothers. Titi monkey males also have to learn to be fathers and first born young are less likely to survive, because new fathers haven't yet had enough practice caring for young. Paternal behavior in titi monkey fathers is influenced by hormones. As in the prairie vole, exposure to infants changes the blood levels of hormones in titi fathers.

Students can read more about the monogamous primates and their paternal behavior at this website:

[Monogamous Primates](#)

Now Let's Look at Human Mothers!

Around the world, mothers do most of the care of children. Scientific research has shown that the way a girl was cared for by her mother and father influences the kind of mother she will be. Girls who were mistreated by their parents are more likely to neglect or mistreat their own children. The stress of living in poverty (not having enough money), or not having the support of the child's father also affects the way a woman mothers. Teen mothers have an especially difficult time and just like with the inexperienced animal parents, the children of teen parents are more at-risk of something bad happening to them.

Hormone levels in human mothers change during pregnancy and childbirth. These are the same hormones that influence maternal behavior in the other species we discussed. Just being around a baby changes a woman's hormone levels, so a woman does not have to give birth to be changed physically by motherhood.

Three abilities also determine mothering skill:

- 1. Sensitivity.** How much does a mother pick up on her infant or child's signals? Infants and children have their own ways of communicating what they need to be healthy and happy. Sensitivity means tuning in and understanding this communication. Sensitivity depends on empathy, or the ability to put yourself in another person's place and respond with care. Empathy in a mother began to develop during her own first year of life, while she was still a baby. Empathy is one of the reasons why childhood experiences greatly affect a woman's ability to mother. But the good news is that empathy and maternal sensitivity are skills. Think of them like playing a musical instrument. The more you practice the better you get. Women who have had difficult childhood experiences can still be good mothers if they practice being sensitive and get help with any emotional problems that would get in the way of empathy.
- 2. Responsiveness.** What does a mother do when her child needs something? Responsiveness means first knowing what to do to care for children and then second actually following through and doing it. A woman has to learn how to care for babies and children but also she must choose to put her child's need first. We are not like rats—we don't come with a set of instincts that tell us what to do or make us do the right thing.
- 3. Self-control.** What does a mother do when her child needs something and she wants to do something other than care for the child? What does a mother do when her child gets on her nerves? Doing the right thing as a mother depends on self-control because women often face conflicts between their own wants and needs and their child's wants and needs. Self-control is another skill that starts during early childhood and is dependent on a mother getting the right amount of love and teaching from her own parents.

Human Fathers

Although mothers may do most of the care of young children, fathers play a big role in how their children grow up. Fathers care for children just like mothers, but fathers also provide emotional and financial support to their wife and children. In some families, dad stays at home and cares for the children, while the mother provides the emotional and financial support. Fathering depends on the same sensitivity, responsiveness and self-control that mothering depends on with some differences.

- 1. Sensitive fathering.** A father must also be able to sense the emotional and other needs of his child. In men as in women, sensitivity depends on empathy. While most people think empathy is an important skill for girls and women, some people think it is not important for boys and men. So boys may get less training than girls in being empathetic and caring. This can have an effect on the kind of father a boy becomes. Empathy is just as important for boys as it is for girls. Just like girls, boys who practice caring can become more caring. Practice with caring makes boys better husbands and fathers.
- 2. Responsive fathering.** Men must also learn what to do to take care of children. Boys may not get as much of a chance to practice caring for children before they become fathers because boys are less likely to babysit. Studies show though that fathers who care for babies by changing diapers and helping feed them are more connected to their children. One of the most important jobs a father has is to play with his child. Being a responsive father means learning (or remembering) how to play!
- 3. Self-control.** Fathers must also develop a lot of self-control. Children demand a great deal of time and attention. They can also get on your nerves. Being a good father means putting the needs of your family first and not losing your cool.

Section 2 Conclusion

You have gotten a glimpse of parenting in humans and other mammals. You have learned that the human family is very special because of the strong bonds that exist between mothers and fathers and between fathers and children (although strong bonds exist between human mothers and their children that is true for all mammals). Human mothers and fathers have to learn how to be good parents. How we were raised affects how we parent by affecting empathy and self-control. How we were raised also teaches us something about how to care for babies and children. Both mothers and fathers should seek to know about the needs of babies and children and learn how to care for them. Next we will talk more about special human personality traits like empathy.