

Home life influences onset of maturity

By Jeff Harrison

For many young girls, a stable family life is one key factor to avoiding a number of serious health problems. Research conducted at The University of Arizona and the University of Wisconsin, Madison, shows that girls who grow up with supportive parents who themselves have a strong relationship are more likely to delay the onset of puberty.

Early puberty in girls is already known as a risk factor for a variety of health problems, including mood disorders, substance abuse, adolescent pregnancy and cancers of the reproductive system. Understanding these risks is also essential as a means to develop effective early intervention and prevention strategies.

Bruce J. Ellis, an associate professor in the Norton School of Family and Consumer Sciences at the UA, and Marilyn J. Essex at Wisconsin based their study on a 1991 model developed by noted psychologist Jay Belsky and his colleagues of the role of family ecology in speeding up or slowing down puberty in girls.

Belsky's theory is that children's early experiences affect how they mature. Certain stressors in and around the family create conditions that speed puberty as well as sexual activity. These stressors include poverty, marital conflict, negativity and coercion in parent-child relationships, and lack of support between parents and children. According to Belsky's theory, children adaptively adjust their sexual development in response to the conditions in which they live.

To test this, Ellis and Essex investigated how stressors affect children's development by examining families of 227 preschool children in Wisconsin. They measured socioeconomic conditions, marital conflict, parental depression and supportive versus coercive parenting through interviews with mothers and fathers.

The study followed the children through middle school, testing the first hormonal changes of puberty, the awakening of the adrenal glands, in 120 of the children (73 of whom were girls) when they were in first grade, and the development of secondary sexual characteristics, such as breast budding and the growth of body hair, in 180 girls in

fifth grade. Ellis, who was the lead author of the study, said the data on puberty were obtained from "mother-and-daughter reports."

"Essentially, the mothers and daughters were independently shown a series of diagrams depicting different levels of physical development and then selected the diagram that most closely resembled the daughter," Ellis said.

The results of the study show that children living in families with greater parental supportiveness, from both mothers and fathers, with less marital conflict and less depression reported by the fathers experienced the first hormonal changes of puberty later than other children. In addition, children whose mothers had started puberty later (a genetic factor), whose families were better off financially when the children were in preschool, whose mothers gave them more support when they were in preschool and who had lower Body Mass Index scores when they were in third grade developed secondary sexual characteristics later than their peers.

"Consistent with the theory, quality of parental investment emerged as a central feature of the proximal family environment in relation to the timing of puberty," Ellis said.

"These results replicate and extend previous longitudinal research indicating that higher levels of positive investment and support in family relationships in preschool predict lower levels of pubertal maturation in daughters in the seventh grade," he said.

Part of the funding for the study came from the National Institute of Mental Health. Ellis also received support from the Frances McClelland Institute for Children, Youth and Families, which is based at the Norton School and serves as a catalyst for the cross-disciplinary study of children, youth and families at the UA.

Contact

Bruce J. Ellis (520) 626-5703 bjellis@email.arizona.edu