

## **Study shows father's influence** Dads can sway girls toward math, science

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University of Michigan cell biologist Kristen Verhey remembers as a child playing with her father's computer and solving math problems during family trips.

Because of her father, a University of Michigan-Dearborn mathematics professor emeritus, Verhey says she felt that her potential was limitless.

"It wasn't specifically the math (at home) that made the difference, it was the attitude that you could do anything you wanted," said Verhey, who graduated from Harvard University in 1995 with a doctorate in biology. "I don't ever remember thinking, 'Well I'm a girl, I can't do this.'"

Verhey's fond memories reinforce the findings of a U-M study released in May by the Institute for Social Research.

The study found, among other things, that daughters of fathers without traditional gender stereotypes were more likely to become interested in mathematics and science-related fields than their stereotyped counterparts.

The study, conducted in the Ann Arbor area from 1987 through 2000, followed three groups of children and their parents to determine the level of influence childhood has on career choice. More than 800 children and 500 parents participated in the study.

Women have historically been underrepresented in fields like computer science and engineering, said Pamela Davis-Keane, a U-M psychologist with the Institute of Social Research.

Daughters whose parents encouraged math and science involvement earned better grades in those subjects and felt more confident in their computing abilities, Davis-Keane said. Daughters of parents who showed apathy toward math and science shied away from those fields.

Davis-Keane said even though they didn't realize it, many parents in the study spent more time developing math and science interest in their sons than in their daughters.

"The differences are very subtle - it may be in the types of toys the parents bought for their children or just in conversation," Davis-Keane said.

Verhey said her upbringing, with its strong undertones of gender equality and encouragement for learning, helped point her toward a science-related career.

And getting her dad's help during difficult math courses didn't hurt, either, she said.

"We were always given the perception that math is fun and not something to be afraid of," Verhey said, recalling a college calculus course she took with her father "just for fun."

Creating a math- and science-friendly home environment like the one Verhey described can help increase the number

of women in those fields, Davis-Keane said.

One thing is clear, she said: It's not the girls' potential that's lacking.

"It's not an achievement issue, but it seems to be a matter of influence," Davis-Keane said. "Parents should encourage kids to excel in math and science even if they weren't good at it themselves."

To Verhey's father, Roger Verhey, encouraging his children was natural.

"My focus was to encourage them to put forth effort," he said. "My hopes were for them to like something and work at it ... I never tried to make them something they were not."

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