

Prenatal cell phone exposure tied to behavior

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By Anne Harding

NEW YORK (Reuters Health) - Children whose mothers used cell phones frequently during pregnancy and who are themselves cell phone users are more likely to have behavior problems, new research shows.

The finding "certainly shouldn't be over interpreted, but nevertheless points in a direction where further research is needed," Dr. Leeka Kheifets of the UCLA School of Public Health, who helped conduct the study, told Reuters Health. "It's a wonderful technology and people are certainly going to be using it more and more," she added. "We need to be looking into what are the potential health effects and what are ways to reduce risks should there be any."

Kheifets and her team looked at a group of 13,159 children whose mothers had been recruited to participate in the Danish National Birth Cohort study early in their pregnancies. When the children reached age 7, mothers were asked to complete a questionnaire about their children's behavior and health, as well as the mother's own cell phone use in pregnancy and the child's use of cell phones.

After the researchers adjusted for factors that could influence the results, such as a mother's psychiatric problems and socioeconomic factors, children with both prenatal and postnatal cell phone exposure were 80 percent more likely to have abnormal or borderline scores on tests evaluating emotional problems, conduct problems, hyperactivity, or problems with peers.

Risks were higher for children exposed prenatally only, compared with those exposed only postnatally, but were lower than for children exposed at both time points.

Kheifets and her colleagues note that a fetus's exposure to radiofrequency fields by a mother's cell phone use is likely very small. However, they add, research has shown that children using cell phones are exposed to more radiofrequency energy than adults, because their ears and brains are smaller.

Because cell phone use was so infrequent among children in the study - 30 percent of kids were using a cell phone, but just 1 percent used a cell phone for more than an hour a week - radiofrequency exposure seems unlikely to have caused any behavior problems, they say.

"Another possible explanation for the observed association might be the lack of attention given to a child by mothers who are frequent users of cell phones," the researchers suggest. They note that mothers who used cell phones frequently were of lower socio-occupational status, more likely to have mental health and psychiatric problems, and more likely to have smoked while they were pregnant.

No matter what the factors behind the association are - if there indeed is a real relationship between cell phone use and behavior problems--one simple way to reduce exposure to cell phones would be to use hands-free technology, Kheifets said in an interview.

Editorialists writing in the journal raise the question of whether the publication of these findings

may scare people for no reason.

Kheifets and her team believe that while their findings are preliminary, they should be reported. "We felt that the public is quite capable of dealing with proper information," the researcher said. "One shouldn't really try to be paternalistic about it."

SOURCE: Epidemiology, July 2008.

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