Names_____

Article Activity

Answer the following questions about your article

1. What is the purpose of the study? What are the researchers trying to find out?

2. What is their target population?

3. What group was actually studied? Is any information given about the selection of the sample?

4. What information was collected from the sample? This information describing the data which has been collected is known as **descriptive** statistics.

5. What conclusions are drawn about the population based on the information from the sample? This is known as **inferential** statistics.

6. Did this study use a survey from a sample and then use that result to claim the same result represented the population?

Now find 2 other people to compare with, each with a different article names:

7. Which article(s) used information on various characteristics of the sample to conclude that there was a relationship between some of those characteristics?

8. Did any of the studies treat or manipulate the subjects? (this doesn't mean they did something wrong, just that they changed something or gave them a treatment) Did the researchers conclude that the difference in treatment caused different results for the subjects?

9. Do you see any problems with the validity of any of the studies described?

The following is an article from
http://archives.cnn.com/2002/HEALTH/parenting/05/16/baby.brains/index.html

Baby face: Infants know who you are

May 16, 2002 Posted: 4:15 PM EDT (2015 GMT)

WASHINGTON (CNN) -- Because of the way human brains develop, 6-month-old babies are better at recognizing certain faces than 9-month-old infants, a new study says.

Even more surprising, those 6-month-olds are also better than adults at some face recognition, it contends.

But there's a catch: It is non-human faces that the 6-month-olds excel at recognizing.

In a study detailed in Science magazine, researchers discovered that the 6-month-olds had no problem distinguishing between individual humans or between individual monkeys. But just three months later, at 9 months of age, while babies could still tell the difference between human faces, they couldn't tell one monkey from another.

"Early in development, the brain is open to any face," said Charles Nelson, a child psychologist at the University of Minnesota. But apparently sometime between 6 and 9 months of age, he said, babies' brains "key in" on the fact that human faces are the ones they need to pay attention to.

As people get older, they get better and better at detecting the subtle differences in the faces they see a lot: human faces, Nelson said. But at the same time, they lose the ability to detect differences in things they don't see a lot.

It's a phenomenon called "cognitive narrowing."

Olivier Pascalis, who led the study at the University of Sheffield in England, said a baby's brain gets "hard wired" during the first year of life, creating a template it can use to compare all those new human faces.

The researchers see a possible parallel between the development of face recognition and the development of speech. It may be that young children can learn a second language easier than adults because their brains are more open to new and different sounds, Nelson said.

The Science study involved 30 6-month-olds, 30 9-month olds, and 11 adults.

The babies, sitting on an adult's lap, looked at pictures of human and monkey faces. Researchers videotaped the children's eye movements, to gauge which picture they were focusing on, and for how long.

The longer they looked at a picture, the less familiar to them it was considered to be, because babies of any age -- as well as adults -- will look longer at the picture that is new, or unfamiliar.

Participants were first shown identical pictures, either of a monkey or a human. Then, they were shown one of those original pictures again, plus a new photo.

When looking at the monkey pictures, the 6-month-olds spent more time looking at the new picture. But the nine-month-olds, as well as the adults, split their time fairly evenly looking at the two monkey faces -- meaning, the researchers said, that they didn't recall seeing one of the monkey faces earlier.

Those in every age group could recognize humans faces they had seen before.

Study: Duct tape wart cure overstated

CHICAGO (AP) — Duct tape's success at curing warts may have been overstated, according to a new study that raises doubts about the tape's effectiveness as a cheap, painless treatment.

The tape supposedly works by irritating the skin and stimulating the body's immune system to attack the virus that causes warts. It earned a place in the medicine cabinet in 2002, when a small study showed it to be effective on children and young adults.

ON DEADLINE: Tape's purported therapeutic qualities challenged

This time, a study among older adults found duct tape helped only 21% of the time and was no better than moleskin, a cotton-tape bandage used to protect the skin.

But researchers used transparent duct tape. Only later did they learn that the transparent variety does not contain rubber, unlike the better-known, gray duct tape that appeared to be effective in the 2002 study.

"Whether or not the standard type of duct tape is effective is up in the air," said co-author Dr. Rachel Wenner of the University of Minnesota, who started the new study as a medical student. "Theoretically, the rubber adhesive could somehow stimulate the immune system or irritate the skin in a different manner."

Warts are harmless, stubborn bumps on the hands or feet, caused by a type of papillomavirus. The virus camps out in the skin's upper layers without calling the attention of the body's immune system. Another type of papillomavirus causes cervical cancer, but the strains that cause warts are not cancerous.

Wenner's finding does not surprise Dr. Amy Paller, chairman of the dermatology department at Northwestern University's Feinberg School of Medicine, who was not involved in the new study.

"I have plenty of patients come in having tried duct tape. That's why they come in, because it didn't work," Paller said.

Duct tape may work better in children than in adults, Paller said. Children have strong immune systems and usually have better luck than adults getting rid of warts with any treatment, she said. The median age of subjects in the new study was 54.

Over-the-counter topical treatments containing salicylic acid sometimes work on warts. Doctors use laser therapy or liquid nitrogen against an unyielding wart, or in extreme cases a prescription cream or a virus-fighting injection. Warts usually clear up on their own in about two years, she said.

Warts can spread to other people through towels or skin-to-skin contact. They are extremely common in children, showing up in up to 20% in some studies. It's not known how common they are in adults.

In the new study, appearing in the March issue of *Archives of Dermatology*, researchers followed 80 people with warts. The patients were randomly assigned to cover their wart with either a bandage made of duct tape and moleskin, or a bandage made of moleskin alone.

Transparent duct tape was used so patients and doctors would not be able to guess which bandages contained the duct tape.

The patients were instructed to wear the bandage for a week, remove it after the seventh day and then, on the eighth day, soak the wart in water, and lightly scrape it with an emory board. They repeated the treatment for two months or until the wart disappeared. It was the same regimen as in the 2002 study.

Duct tape showed paltry success in the new study. Eight of the 39 patients (21%) who got the duct tape treatment saw their warts disappear. Nine of the 41 patients (22%) who got only moleskin saw their warts vanish. There was no significant difference between the two groups.

The following is part of an article from http://www.msnbc.msn.com/id/19912237/ posted on July 23, 2007.

School conducts anti-phishing research

Methods at Indiana University raising ethical, logistical questions

updated 6:45 a.m. MT, Mon., July 23, 2007

EVANSVILLE, Ind. - The e-mail appeared to be a routine correspondence between two friends. "Check this out!" it read, then listed a Web address.

But the note was fake, part of an online ruse called phishing that has become a scammer's favorite way to get sensitive information from unsuspecting computer users.

The catch? The scammers were Indiana University researchers, the e-mail an experiment.

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As universities nationwide study ways to protect online security, methods at Indiana are raising ethical and logistical questions for researchers elsewhere: Does one have to steal to understand stealing? Should study participants know they are being attacked as part of a study? Can controlled phishing ever mimic real life?

Indiana researchers say the best way to understand online security is to act like the bad guys.

"We don't believe that you can go and ask people, 'Have you been phished?' There's a stigma associated with it. It's like asking people, 'Have you been raped?'" said Markus Jakobsson, an associate professor of informatics who directs IU's Anti-Phishing Group.

The university has conducted nearly a dozen experiments in the last two years. In one, called "Messin' With Texas," researchers learned mothers' maiden names for scores of people in Texas. Maiden names often are used as a security challenge question.

Another conducted in May found that 72 percent of more than 600 students tested on the Bloomington, Ind., campus fell for an e-mail from an account intended to look familiar that sought usernames and passwords.

By contrast, only 18 percent of 350 students in a separate control group were fooled when they received e-mails from addresses they did not recognize.

The experiments found that hackers have the most success by using hijacked Web addresses or e-mail accounts that look real. The research also showed computer users generally have little knowledge of Web site security certificates and leave themselves open to attack with poorly configured routers or operating systems.

Understanding those weaknesses is a key to combating phishing, which accounted for nearly three-quarters of 11,342 online attacks recorded between January and March, according to the US-Cert, which monitors online attacks for the Department of Homeland Security.

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Federal laws governing university research allow scientists to use deceptive means if the risk participants face is minimal and no greater than what they would face in daily life.

Peter Finn, who serves on the Indiana review board that approves the studies, said the university believes the phishing experiments fall within those guidelines -- even though about 30 students complained about the methods.

"The probability of harm from the study is nowhere near the magnitude of the harm that would result from actual phishing attacks," Finn said.

Jakobsson said researchers take steps to protect information from hackers who might snoop on the studies. The fake Web sites and e-mails used in the phishing attempts are created behind a secure server. No information submitted by test subjects is stored. The experiments, which are not encrypted in order to mirror real conditions, record only that someone gave information -- not what they provided.

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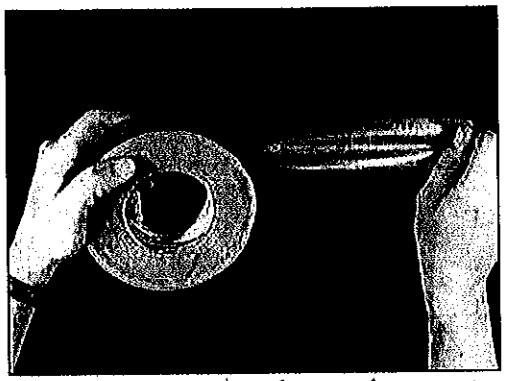
The following is an article from http://www.cbsnews.com/stories/2002/10/14/health/main525523.shtml
CHICAGO, Oct. 14, 2002

Duct Tape Therapy

Study Says Duct Tape Effective For Removing Warts

By Bootie Cosgrove-Mather



(AP) Duct tape, the all-purpose household fix-it with hundreds of uses, can also remove warts.

Researchers say over-the-hardware-counter duct tape is a more effective, less painful alternative to liquid nitrogen, which is used to freeze warts.

The study was reported in the October issue of the Archives of Pediatrics and Adolescent Medicine.

In the study, patients wore duct tape over their warts for six days. Then they removed the tape, soaked the area in water and used an emery board or pumice stone to scrape the spot. The tape was reapplied the next morning. The treatment continued for a maximum of two months or until the wart went away.

The duct tape irritated the warts, and that apparently caused an immune system reaction that attacked the growths, said researcher Dr. Dean "Rick" Focht III of Cincinnati Children's Hospital Medical Center.

He said researchers did not test other kinds of tape, and so they cannot say whether there is anything special about the gray, heavy-duty, fabric-backed tape.

Pediatric dermatologist Dr. Anthony J. Mancini of Children's Memorial Hospital in Chicago said he uses duct-tape therapy for warts in his practice.

"The whole point of this is a non-painful approach," said Mancini, who was not involved in the study.

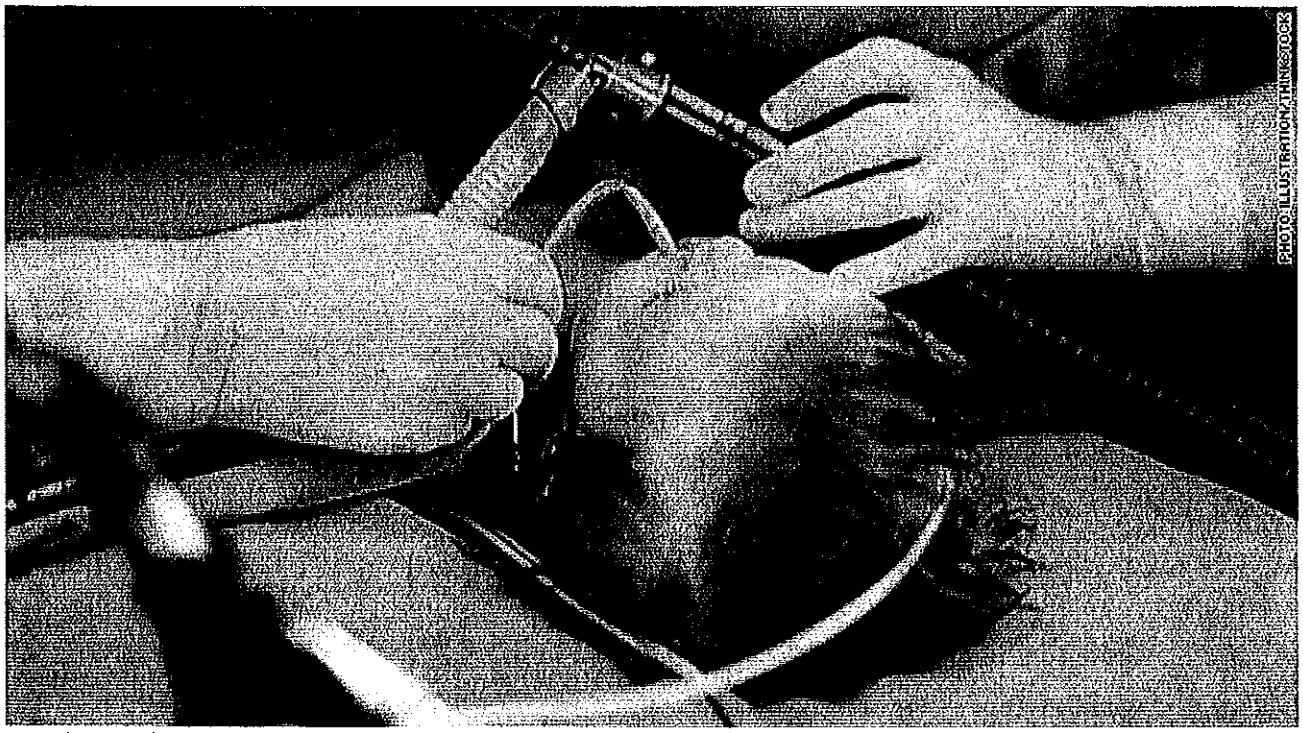
The study was conducted at the Madigan Army Medical Center near Tacoma, Wash. It began with 61 patients between the ages of 3 and 22, but only 51 patients completed the study.

Of the 26 patients treated with duct tape, 85 percent got rid of their warts compared with 60 percent of the 25 patients who received the freezing treatment.

Researchers did not test the duct tape on older adults and also did not study whether warts recurred.

The apparent curative powers of duct tape are no surprise to Tim Nyberg, one-half of the Duct Tape Guys, who write books and perform comedy about the adhesive's allure. Nyberg said he and his duct tape partner, Jim Berg, do a shtick that includes duct tape wart removal.

"It's the universal panacea," Nyberg said.



October 3rd, 2011
11:57 AM ET

Anesthesia use in kids linked to learning disabilities

When your kid needs surgery, your response is probably, "Do whatever is necessary to fix him NOW. We'll worry about later, later." But it turns out that putting a child under anesthesia may increase the risk of long-term damage to his or her ability to think.

A new study published by the American Academy of Pediatrics concludes that exposure to anesthesia before age 2 may manifest in a form of cognitive impairment called apoptotic neurodegeneration. But let's not get ahead of ourselves. First of all, the researchers found no greater risk in those subjects who had only been "put under" once. Multiple exposures to surgery/anesthesia, on the other hand, significantly increased the risk of developing learning disabilities later on in life.

The estimated incidence of learning disabilities, as measured at age 19, was 21.3% for kids who'd not had anesthesia, 23.6% for those exposed once, and 36.6% for those with multiple exposures, according to the study.

But what other factors might be at play? For starters, as noted in the study itself, "...the underlying condition necessitating the surgery or a coexisting disease that could confound the relationship between anesthesia/surgery and neurodevelopmental outcomes."

Indeed, it's impossible to control for the influence of the surgery itself, says Dr. David Reich, chairman of anesthesiology at Mount Sinai School of Medicine. "Surgery causes trauma to tissues, inflammation, and blood loss. Postoperatively, there are variable degrees of inflammation, disability, and pain. The skill of the surgeon and the experience of the team before, during, and after surgery all vary widely and are difficult to quantify."

Furthermore, asserts Reich, "anesthesia is not a 'black box.' There are wide differences in blood pressure, oxygen, carbon dioxide, and levels of acidity that influence brain blood flow and flow to other tissues of the body." In fact, many of the drugs and techniques used today were not even available when these surgeries currently under review took place back in the 1970s and '80s. Halothane, for example, then the predominant anesthetic agent for children, is now rarely, if ever, used in the United States, says Reich.

To arrive at their results and draw this new conclusion, the Mayo Clinic's Dr. Randall Flick and his colleagues analyzed more than 8,500 participants from one town in Rochester, Minnesota, born between January 1976 and December 1982. The data analysis was fully adjusted for health status by taking advantage of access to complete medical charts for all members of the study. Children who did not provide research authorization, left the district before age 5, or tested severely intellectually disabled were excluded from the sample.

And perhaps the timeframe during which these surgeries took place is the most important caveat to note. This new study is a study of association. "Despite the fact that data were collected prospectively," says Reich, "this is retrospective research, because the idea for the research emerged decades later. Even with strong independent statistical findings, there is no way to be certain in a retrospective cohort study that the observations were not influenced by some [other] factor not studied, such as blood loss during surgery."

The bottom line: Knowing that young brains are especially susceptible to the affects of anesthesia, some early surgeries might be delayed, thereby preventing future learning disabilities in some children.

Post by: Ben Tinker - CNN Medical News Senior Producer

http://thechart.blogs.cnn.com/2011/10/03/anesthesia-use-in-kids-linked-to-learning-disabilities/?hpt=he_c2

Study suggests the 'hanging out' online with Facebook, MySpace not a waste for teens

By bmeyer November 20, 2008, 12:12AM

ST. LOUIS -- Some might call it unproductive. Or maybe a bad habit. Or just a frivolous distraction. Or even dangerous.

Julianne Howell, a freshman at St. Joseph's Academy, calls her daily Facebook routine time well spent.

"It's like a social connection," she said. "It's not a waste of time. It's like talking on the phone -- that isn't a waste of time."

Howell's justification for the hours she spends on the social networking site is dead on, according to a study released today by the MacArthur Foundation. A team of researchers working on the foundation's "Digital Youth Project" concluded that interaction with new media such as Facebook is increasingly becoming an essential part of becoming a competent citizen in the digital age.

And further, all that Web surfing isn't necessarily eroding the intelligence or initiative of the young generation.

"It may look like kids are wasting a lot of time online, but they're actually learning a lot of social, technical and also media literacy skills," said Mizuko Ito, a researcher at the University of California, Irvine who led the study.

A team of researchers conducted more than 800 interviews of youths and their parents, and spent more than 5,000 hours observing teens on sites such as Facebook, MySpace and YouTube. The goal was to find out how youths use digital media, such as social networking sites and video games, to understand and participate in society.

Some of their findings should be no surprise to teens or their parents.

For instance, teens like to hang out with their friends online. They learn social skills online. They flirt online.

They develop interests, express themselves creatively, and give each other feedback -- all online.

But the kicker?

All that Internet time isn't rotting their brains. Actually, it's almost necessary, according to the study.

Kids denied access to new media, because their family can't afford it or because their parents, school or library restrict their access or time on social networking sites, are likely to be short on skills that members of their generation are expected to possess, the researchers concluded.

"When kids lack access to the Internet at home, and public libraries and schools block sites that are central to their social communication, youth are doubly handicapped in their efforts to participate in common culture and sociability," the study reads.

The research was funded by the John D. and Catherine T. MacArthur Foundation, a social advocacy group that focuses, in part, on the effect of technology on children and society.

The study isn't the first to suggest youths use new media in productive ways. Another study released in September by the Pew Internet and American Life Project suggested that teens use video games to stay in touch with friends -- and that some games may even encourage youths to become involved in their communities.

But that's not the impression most adults have of digital media, according to the MacArthur study. Adults largely underestimate the value of new technology and tend to view online activity as a risky or unproductive distraction.

"There hasn't been a really good understanding of how kids participate online," Ito said.

Much of the study focused on what the study calls "hanging out" online.

In the past, teens' hanging out has involved face-to-face interaction, whether at a mall, a movie theater or a friend's house. Parents have long pushed back against what can seem to be excessive, idle socializing.

But the study notes there is value to at least a reasonable amount of hanging out, be it a physical interaction or meeting up online.

"It's really about reinforcing a social connection," Ito said.

Basically, hanging out is good, at least in moderation, and kids are now doing a lot of it online.

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Research findings

The team of 28 researchers also made these determinations:

• Teens expect privacy online. Even if hundreds of "friends" can see their Facebook profiles, they expect their parents to stay out.

• Youths are mostly "hanging out" online with friends they first met in person, not strangers they met on a website.

• Social networking sites are used to publicly signal the existence and intensity of relationships, whether with friends or romantic partners.

• Creating profiles on social networking sites allows young people creatively express themselves and develop a visual identity. They get feedback from their peers on the same sites.

• Teens tend to understand the social benefits of using digital media while adults often see it as a "waste of time."

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Study says wrestling leads to violence

BY MARGARET LILLARD
ASSOCIATED PRESS

RALEIGH — Teenagers who watched professional wrestling on TV were more likely to behave violently than other kids, researchers are reporting today, and girls seemed to be more influenced than boys.

Those findings were part of a study suggesting that teenagers who watched wrestling shows like "RAW" and "SmackDown" had a tendency toward violence, including carrying weapons and fighting on dates.

The researchers also found that students who were most likely to fight on dates after they had been drinking or using drugs were the ones who watched wrestling most often.

The study, based on data collected seven years ago, was published today in the August issue of Pediatrics. A team led by Robert H. DuRant, a professor of pediatrics, social science and health policy at Wake Forest's Baptist Medical Center, surveyed about 2,000 students in Winston-Salem and Forsyth County public high schools in the fall of 1999 and again in April 2000. Just over half the group was male. The study is based on data that includes follow-up interviews with the surveyed teenagers.

The study found that students who were most likely to fight on dates after drinking or using drugs were the ones who watched wrestling most often.

Researchers said the data is still relevant given wrestling's high TV ratings.

Questions included whether the students had recently fought with a boyfriend, girlfriend or date; whether they had been drinking or using drugs before a fight; and whether they had watched professional wrestling on television in the two weeks before the survey.

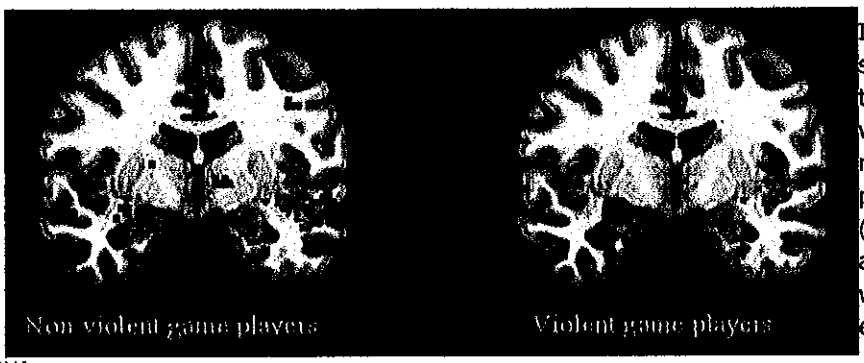
It found that 63 percent of the boys and 35 percent of the girls watched wrestling during the survey periods, and 25 percent of the boys and 9 percent of the girls watched six or more times. The study found that for both sexes, a greater frequency of watching wrestling was associated with higher rates of problematic behavior.

DuRant said the research should serve as a warning. While parents can identify wrestling as entertainment, children are less likely to place the shows in that context.

The following is an article from http://www.msnbc.msn.com/id/16099971/

Does game violence make teens aggressive?

Researchers say parents should look closely at findings of new study



In a recent research study, adolescents played two different types of video games for 30 minutes. Teens that played the violent game (right) showed increased activity in the amygdala, which is involved in emotional arousal.

RSNA

By Kristin Kalning Games editor msnbc.com updated 9:58 a.m. MT, Fri., Dec . 8, 2006

Can video games make kids more violent? A new study employing state-of-the-art brain-scanning technology says that the answer may be yes.

Researchers at the Indiana University School of Medicine say that brain scans of kids who played a violent video game showed an increase in emotional arousal – and a corresponding decrease of activity in brain areas involved in self-control, inhibition and attention.

Does this mean that your teenager will feel an uncontrollable urge to go on a shooting rampage after playing "Call of Duty?"

Vince Mathews, the principal investigator on the study, hesitates to make that leap. But he says he does think that the study should encourage parents to look more closely at the types of games their kids are playing.

"Based on our results, I think parents should be aware of the relationship between violent video-game playing and brain function."

Mathews and his colleagues chose two action games to include in their research -- one violent the other not.

The first game was the high-octane but non-violent racing game "Need for Speed: Underground." The other was the ultra-violent first-person shooter "Medal of Honor: Frontline."

The team divided a group of 44 adolescents into two groups, and randomly assigned the kids to play one of the two games. Immediately after the play sessions, the children were given MRIs of their brains.

The scans showed a negative effect on the brains of the teens who played "Medal of Honor" for 30 minutes. That same effect was not present in the kids who played "Need for Speed."

The only difference? Violent content.

What's not clear is whether the activity picked up by the MRIs indicates a lingering — or worse, permanent — effect on the kids' brains.

And it's also not known what effect longer play times might have. The scope of this study was 30 minutes of play, and one brain scan per kid, although further research is in the works.

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Larry Ley, the director and coordinator of research for the Center for Successful Parenting, which funded Mathews' study, says the purpose of the research was to help parents make informed decisions.

"There's enough data that clearly indicates that [game violence] is a problem," he says. "And it's not just a problem for kids with behavior disorders."

But not everyone is convinced that this latest research adds much to the debate – particularly the game development community. One such naysayer is Doug Lowenstein, president of the Entertainment Software Association.

"We've seen other studies in this field that have made dramatic claims but turn out to be less persuasive when objectively analyzed."

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THE WALL STREET JOURNAL.
WSJ.com

HEALTH JOURNAL | JANUARY 27, 2009

Does Bran Make the Man? What Statistics Really Tell Us

By MELINDA BECK

Can eating breakfast cereal determine the sex of your baby?

A debate over that question in a British scientific journal shows why some observational studies should be taken with a big shaker of salt.

The original study, "You Are What Your Mother Eats," in the journal Proceedings of the Royal Society B, made headlines around the world last April. Researchers at Exeter and Oxford universities asked 740 pregnant women to record what they ate during pregnancy and just before. Not surprisingly, their diets during pregnancy had no correlation with their babies' gender.

But 56% of women who consumed the most calories before conception gave birth to boys, compared with 45% of those who consumed the least. Of 132 individual foods tracked, breakfast cereal was the most significantly linked with baby boys.

How could that be? The authors said animal studies also found male offspring are more common in times of plenty; they speculated that higher glucose levels in mothers may favor the survival of male embryos, which are slightly heavier than females.

Baloney, said some U.S. statisticians, who suspected the finding was simply a false association that can occur by chance in a large set of data.

"Think of it this way: The probability of getting all spades in a given bridge hand is infinitesimally small, but in all the bridge games all over the world, somebody might," says Stan Young, assistant director of the National Institute of Statistical Sciences in Research Triangle Park, N.C. He obtained the study data, re-analyzed it and wrote a commentary in the journal's current issue saying the cereal finding was pure chance.

The study's authors wrote a rebuttal disputing Dr. Young's analysis and standing by their findings.

Behind the cereal squabble lies a deep divide between statisticians and epidemiologists about the nature of chance in observational studies in which researchers track peoples' habits and look for associations with their health but don't intervene at all.

Statisticians say random associations are rampant in such studies, which is why so many have contradictory findings. To prove the point, researchers in Ontario studied the astrological signs of hospital patients and found that Sagittarians are susceptible to fractures, Pisces are prone to heart failure, and so on. The links met the traditional mathematical standard for "statistical significance" but were completely random, and disappeared when the study was repeated with a different sample.

Some statisticians argue for a tougher standard of proof when researchers are fishing in large data sets. One method, a Bonferroni adjustment, requires dividing the usual mathematical formula by the number of variables; if 100 foods are studied, the link must be 100 times as strong as usual to be considered significant. Otherwise, statisticians say only strict clinical trials with a control group and a test group and one variable can truly prove a cause-and-effect association.

Epidemiologists argue that a Bonferroni adjustment throws out many legitimate findings, and that it's irrelevant how many other factors are studied simultaneously. They also note that controlled clinical trials are costly, time-consuming and sometimes unethical. The link between smoking and cancer, for example, was seen in many observational studies, but forcing subjects to smoke for years to prove it would be untenable.

In the cereal study, Dr. Young argues that the data collected on the mothers' diets at mid-pregnancy should be factored into the adjustment for statistical significance, and that when it is, the significance of breakfast cereal vanished. "If you can pick and choose your data after the fact, you can make them look however you want," he says.

"There's no way that the mother's diet in mid-pregnancy would affect the gender of her infant," counters Fiona Mathews, the lead author and a lecturer in mammalian biology at Exeter, who says that data was included only for comparison.

So does breakfast cereal affect a baby's gender? Don't paint the nursery yet. A good rule of thumb is to wait and see if an observation association pops up again when the study is repeated, something Dr. Mathews says she plans to do.

- **Email** healthjournal@wsj.com.

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