

Joel Greenberg reports from Toronto at the annual meeting of the American Psychological Association

Prenatal influences on newborn

A growing number of studies have indicated that many things affecting the physical or emotional state of a pregnant woman may also influence her newborn baby. Two of the latest pieces of research suggest that obstetric medication can affect infant feeding behavior and prenatal stress may reduce fertility in female offspring.

In a study of the sucking behavior of 24- to 36-hour-old infants, researchers examined three groups of 10 babies each: Those whose mothers had received local anesthesia, pudendal block or saddle block. "The results of the study show that infants whose mothers received a saddle block during labor and delivery sucked at a slower rate, maintained their rate of sucking for shorter periods of time and consequently consumed less formula" than infants of mothers in the other groups, report Kathy C. Sanders of Charles R. Drew Postgraduate Medical School, Milton E. Strauss of Johns Hopkins University and Ronald T. Gutberlet of the University of Maryland department of pediatrics.

"Clearly the effects of obstetric medication on infant sucking behavior are independent of the state characteristics of the infant," they suggest.

The second study involved the stressing of female rats — with heat, restraint and bright lights — during their pregnancy period. The female offspring of this group, and of a nonstressed control group, were followed to maturity by Lorraine Roth Herrenkohl of Temple University's psychology department. The animals were then mated with male studs.

Herrenkohl found that one-third of the prenatally stressed females failed to become pregnant, compared with only 8 percent of the nonstressed control group. Once having become pregnant, 22 percent of the stressed group failed to maintain pregnancy, compared with just 4 percent of the controls. The psychologist reports irregularities in estrus cycling among the stressed rats who did not become pregnant. The mechanisms by which the effects of stress are transmitted from mother to daughter are not yet known, she says. But their investigation may be critical to human medical fields, she suggests.

A 'shot' for the TV strain

Has your child been vaccinated ... against TV commercials? Researchers at Stanford University and McGill University believe that young children can and should be inoculated against the adverse effects of television advertising. The vaccine they have developed is a derivative of celluloid: It actually consists of two consumer awareness films entitled "The Six Billion \$\$\$ Sell" and "Seeing Through Commercials."

In two studies at three California elementary schools, children's overall skepticism toward commercials was evaluated before viewing one of the "vaccine" films or a control film, and then again 10 days later. The youngsters were later exposed to a series of popular TV commercials and asked how they felt about them.

The investigators found that such films indeed helped children — particularly younger, "more trusting" children — to be more critical of TV advertisements. "We feel confident that it is possible to teach children to be more critical of commercial appeals by showing them instructional films that teach how commercials attempt to persuade," say Donald F. Roberts, Wendy A. Gibson, Peter Christenson and Linda Mooser of Stanford University and Marvin E. Goldberg of McGill University.

While the films helped the younger, more vulnerable children, the researchers found that among youngsters who were not inoculated, those who watched the most television were less skeptical and more trusting of commercials.

The agony of cigarette withdrawal

To most nonsmokers, giving up cigarettes sounds like a logical, healthy and relatively straightforward thing to do. But only smokers know the craving and agony that quitting can bring, at least initially. A comprehensive survey of ex-smokers by Saul M. Shiffman and Murray E. Jarvik of the University of California at Los Angeles, suggests that the first week of abstinence may be the hardest. About 90 percent of those surveyed report a "severe craving" shortly after their last cigarette, "with many of the symptoms beginning to appear within two hours after withdrawal."

Contrary to much popular belief, the researchers report that gradual withdrawal — cutting down on consumption by half or more — may actually "prolong their [the smokers'] agony by intermittently reinforcing their symptoms and smoking behavior. Typically, this chronic state of withdrawal will lead to relapse and return to baseline rates of smoking. ... Thus, craving leads to smoking and smoking leads to craving in a cycle of dependence."

Shiffman and Jarvik also found that the irritability and anxiety levels of nonsmokers seem to peak in the early evening and intensify their craving for cigarettes. Such a "diurnal craving" may be due to environmental factors such as meals or social contacts, or "it could be due to some diurnal or circadian variation within the smoker's internal environment."

In a separate study of 134 successful and unsuccessful quitters, researchers at the Kaiser-Permanente Mental Health Center in Los Angeles have come up with a type of profile of a successful "long range" quitter: A person whose father had never smoked, who may have been able to stop smoking in the past, who smokes only half the time through the day and evening, who has smoked for more than 25 years and who is 45 years of age or older.

Skinnerian golf: Putting for rewards

Speaking of agony, only a 25-handicapper knows the true exasperation of golf. Now, thanks to the ingenuity of two researchers from Hofstra and Western Kentucky universities, the level of frustration might be lowered for some hackers. It may have been the furthest thing from B. F. Skinner's mind, but Hofstra's Richard M. O'Brien and Western Kentucky's Thomas C. Simek (a four-handicapper and teacher of golf amateurs) report that a "behavioral methodology" of teaching golf yields considerably better results than traditional instruction techniques.

Benefiting from a "chaining and mastery" approach to learning golf, a group of novice golfers averaged more than 17 strokes better on their first round of play than a group trained in the traditional verbal and modeling technique. Behavioral chaining consists of first teaching the group to sink short putts and working backward to longer shots and, finally, drives. Standard teaching methods involve body positioning and show how to swing with drivers and irons rather than putters.

The behavioral approach of teaching the putt first is based on "the reinforcement of seeing the ball disappear into the ground ... putting the ball in the hole," say the authors. And if the would-be Jack Nicklaus and Nancy Lopez have problems dropping the first six-inch putts, O'Brien and Simek simply provide a larger hole, ball and putter "to provide both immediate reinforcement and mastery of the basic stroke in its simplest form."

During the training, the behavioral group consistently shot closer to the hole than did the traditional trainees at numerous distances. And following their eight lessons, each group competed on a regulation, 18-hole course. The results: The mean score for the behavioral group was 98.5, compared with 115.8 for the traditional group.