

# Proven Techniques Key For Parents in the OR

*'Cadillac' intervention program reduces children's anxiety but at a high financial cost.*

BY BETSY BATES

FROM AN INTERNATIONAL CONFERENCE ON PEDIATRIC PSYCHOLOGICAL TRAUMA

LOS ANGELES – Parents want to be with their children in the operating room during the anxious moments that precede induction of anesthesia.

And children want their parents to be present. Even anesthesiologists, surgeons, and nurses think this is a good idea.

But in a series of randomized trials in Canada, Europe, and the United States, only an expensive, multiday "Cadillac" behavioral intervention program has proved its worth in reducing child anxiety in meaningful ways when parents are present in the operating room before surgical procedures, Dr. Zeev N. Kain said at the conference.

The Advance program – which involves a psychoeducational and behavior modeling video, graduated shaping exercises, distraction techniques, supportive telephone coaching, and adherence checks – reduced emergence from anesthetics, lowered analgesic use, and reduced time to discharge (Anesthesiology 2010; 112:751-5).

"It's a great intervention. The problem is, it's an expensive intervention," he said.

Of course, anyone who has been involved in pediatric surgery can easily point to anecdotal situations in which parental presence in the operating room was highly comforting to the child, easing induction of anesthesia, said Dr. Kain, who is professor and chair of anesthesiology and perioperative care at the University of California, Irvine.

"A randomized controlled trial is not a real-life situation [in which] you look at the child, you look at the parent, you look at yourself on that day and [decide], 'Do I think this would be beneficial at this time?'" he said.

Any systematic revision in standard operating room procedures needs to be more widely applicable to a variety of children of different ages, temperaments, and coping styles and parents with styles to match.

A moment-to-moment factor analysis of what actually happens in the operating room may shed light on where anxiety-prevention efforts have gone wrong and what needs to happen to bring calm to this and other settings for

major medical procedures.

"We're not asking the right question," said Dr. Kain in summarizing results of his previous studies. "We shouldn't ask, should we or should we not be bringing parents into the operating room? We should ask, what did the parents *do* in the operating room?"

Dr. Kain and his associates recently reviewed videotapes of OR encounters, painstakingly recording hundreds of variables in behavior, verbal and physical interchanges, and physiological responses.

They found that parents and health professionals alike tend to stop utilizing the most effective interventions – distraction techniques and strengthening of coping mechanisms – and start relying on unhelpful strategies once a child's anxiety begins to build.

In a study of 273 children undergoing surgical procedures, the minute-to-minute analysis showed that most were coping well while walking to the OR.

Their coping behaviors increased as caregivers and professionals engaged in distraction techniques.

"Then it's just downhill from there," said Dr. Kain, pointing to parallel behavior graphs.

Reassurance and empathy – strategies proven to be quite unhelpful in reducing children's anxiety – were increasingly used with children as they entered the OR, were notified of what was happening, and had the mask placed on their faces for anesthesia induction.

"When we put the mask on, almost 38% of the kids started crying," he said. Videotapes showed that parents and professionals resorted to repeatedly making statements such as, "It's going to be OK," when the going got tough.

As a result of the sequential analysis, Dr. Kain and his associates are developing a training program in data-driven behavioral preparation techniques to reduce children's perioperative distress.

The program, which is being piloted at the University of California, Los Angeles, will help nurses and anesthesiologists anticipate and recognize signs of children's emotional suffering and teach them effective tools to intervene.

If all goes well, the study will be expanded to five hospitals in a randomized clinical trial, said Dr. Kain, who reported no relevant financial conflicts of interest. ■

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# Students' Risky Behaviors Continue to Trend Downward

BY MITCHEL L. ZOLER

FROM MORBIDITY AND MORTALITY WEEKLY REPORT

American high school students continued to engage in a variety of risky behaviors during 2009, although in many instances last year's levels ran significantly below rates previously recorded over the past 2 decades, according to results released by the Centers for Disease Control and Prevention from the 2009 National Youth Risk Behavior Survey.

These risky behaviors included riding in a car driven by someone who had recently consumed alcohol, an event that occurred within the prior 30 days for 28% of the high school respondents; carrying a weapon during the prior 30 days, reported by 18%; and participating in a physical fight in the prior year, reported by 32% (MMWR Surveillance Summaries 2010:59; No. SS-5).

In many cases, the 2009 numbers showed a continuation of improving trends. For example, the prevalence of high school students who never or rarely wore a seat belt in a car fell significantly from 26% in 1991 to 10% in 2009. The percentage of those who rarely or never wore a bicycle helmet fell from 96% in 1991 to 85% in 2009.

The prevalence of students who rode in a car driven by someone who had been consuming alcohol fell from 40% in 1991 to 28% in 2009. And carrying a weapon fell from 26% in 1991 to 18% in 2009.

In addition, current cigarette use dropped from 36% in 1997 to 20% in 2009. Among currently sexually active students, condom use during their last sexual intercourse increased from 46% in 1991 to 61% in 2009.

Notable exceptions to these improvements were in the areas of diet, exercise, and weight control. Obesity, defined as a body mass index at the 95th percentile or higher for age and gender, rose from 11% in 1999 to 12% in 2009, a significant increase.

Overweight, defined as a BMI between the 85th and 95th percentiles, rose from 14% in 1999 to 16% in 2009, also a significant increase. The percentage of students who said that they were trying to lose weight rose from 42% in 1991 to 44% in 2009, again a significant increase.

For the first time, the survey – conducted biannually by the CDC starting in 1991 – asked high school students about their prescription drug abuse, including use of OxyContin, Percocet, Vicodin, Adderall, Ritalin, or Xanax without a physician's prescription.

Overall, 20% of responding students admitted this type of abuse, with higher rates among all white students at 23%, all 12th-graders at 26%, and male 12th-graders at 27%.

The survey, which collected data from a weighted sample of more than 16,000 students with a 71% overall response

rate, also showed stark regional differences in student behaviors based on the states and municipalities where they lived. For example, while overall 11% of U.S. high school students said they never or rarely wore a seat belt while riding in a car, the prevalence of this behavior ranged from a low of 4% in San Diego and 6% in Texas to highs of 19% in Arkansas and 29% in Milwaukee. The data also showed significant differences in several behaviors by gender, race, or ethnicity.

Notable risk-behavior findings included:

- ▶ Never or rarely wore a bicycle helmet while cycling: 85%.
- ▶ Had driven a car during the prior 30 days after drinking alcohol: 10%.
- ▶ Had carried a gun at least once during the prior 30 days: 6%.
- ▶ Had felt so sad or hopeless almost daily for 2 or more consecutive weeks that they had stopped some usual activities: 26%.
- ▶ Had attempted suicide at least once during the prior year: 6%.
- ▶ Had smoked a cigarette at least once during the prior 30 days: 20%; in addition, 26% said they currently used some type of tobacco (cigarettes, smokeless tobacco, or cigars).
- ▶ Had consumed at least five alcoholic drinks in a row on at least 1 day during the prior 30 days: 24%.
- ▶ Had used cocaine at least once: 6%.
- ▶ Had consumed a can, bottle, or glass of sugary soda at least once in the prior week: 29%.
- ▶ Did not participate in at least 60 minutes of any physical activity at least once in the prior week: 23%.

Dating violence was reported by 10% of survey participants, more often by black and Hispanic respondents than by white respondents. ■

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