

IN THE LAB

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Comforting Children Without Pills and Shots

By SHIRLEY S. WANG



With seriously ill children often taking so many medicines, parents increasingly are asking for nondrug treatments—such as meditation—to help their kids cope with drug side effects or symptoms of conditions from asthma to cancer.

These "complementary" medicine strategies are not meant to replace conventional medicines or procedures but to be used in conjunction with them to combat issues such as nausea induced by chemotherapy, or the stress and anxiety of being sick and in a hospital.

There's been an "explosion" of research in complementary medicine in the past 15 years, says Kathi Kemper, a pediatrics professor who studies the mind-body connection and heads the Center for Integrative Medicine at Wake Forest in Winston-Salem, N.C.

Helping Children Cope

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Take a look at some of the techniques recommended in the "Comfort Kit" put together by the Integrative Medicine Program at Children's Hospitals and Clinics of Minnesota.

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A 2008 report published by the American Academy of Pediatrics' task force on complementary and alternative medicines cited recent studies showing that more than 50% of children with chronic health conditions use them and an estimated \$127 million was spent on complementary visits as of 2004.

"Whether doctors are ready for this or not, consumers are already there," says Timothy Culbert, medical director of the integrative medicine program at Minneapolis-based Children's Hospitals and Clinics of Minnesota, one of the largest hospital-based, pediatric complementary medicine programs in the country. "Pediatrics as a profession needs to catch up."

Dr. Culbert and his colleagues are about to launch a study at four hospitals in the U.S. and Canada to examine in greater depth the use of nondrug coping skills in kids with cancer.

Several years ago, they developed a "Comfort Kit" designed to teach children these coping skills, including deep-breathing relaxation techniques; aromatherapy, in which patients inhale chemicals produced by plant oils; and acupressure, a variant of acupuncture with pressure applied to certain points in the body.

In a number of small pilot studies using the kit, Dr. Culbert's team found that kids can learn such skills and appear to find them helpful. For instance, one study of 150 kids who underwent surgery showed that 87% said the techniques helped them cope with pain after the procedure. Another study conducted last year found the vast majority of kids with cancer reported that acupressure helped relieve their feelings of nausea.

At the University of Alberta in Edmonton, Canada, Sunita Vohra is running a clinical trial with 80 participants to examine whether a self-calming strategy can help children with a variety of diagnoses, including attention-deficit hyperactivity disorder and opposition-defiant disorder, where kids are known to be violent. The aim is to teach children to focus on "their presence in the moment"—by paying attention to breathing and other sensations and blocking out external commotion. "It gives you an inner place to be that's more calm, more secure," Dr. Vohra says.

She is beginning an individualized study of the use of probiotics—micro-organisms thought to be healthy for the person that consumes them—with gastrointestinal diseases. Dr. Vohra is also studying whether melatonin aids sleep in kids with attention-deficit hyperactivity disorder.

Wake Forest's Dr. Kemper has investigated the pediatric use of music therapy, chiropractic care that involves manipulating the body, and "healing touch," which is based on the premise that the presence of one person's electromagnetic energy field has an affect on another person.

Several of her studies, including one published in the journal *Pediatric Research*, have shown that music helps soothe kids with cancer. In 2008, she and her colleagues published findings on eight premature infants showing that live harp music can help them gain weight. Previous findings depicting this effect puzzled them, because such babies can't increase the number of calories they are eating on their own.

To figure out what was going on, Dr. Kemper's group put devices called actimeters, which measure very small movements, on the legs of the infants and found that those babies who were exposed to the music were alert and paying attention compared to those in a quiet room or getting the usual care.

Later, "music helps them sleep and be less tense," says Dr. Kemper. Soothed babies exhibit fewer tiny muscle movements compared with more tense babies, which reduces the amount of calories they burn.

It isn't always clear from these studies what the active ingredient is that's responsible for the apparent benefit of the therapy. Recent preliminary findings from Dr. Kemper's group show that kids with cancer report feeling calmer, less anxious and more comfortable in the presence of someone performing healing touch. Yet the study can't tease apart whether it is the mere presence of a calm person in the room or the actual healing touch that appears to affect the patient.

Then there is the question of whether a treatment should be used if it hasn't been found to be effective in kids. For instance, Dr. Kemper conducted a small study of 18 kids showing that acupressure isn't more effective than placebo in reducing nausea. Despite the fact that it may not be as effective, "a lot of families like doing it because it empowers them," Dr. Kemper says.

In her clinical practice, Dr. Kemper doesn't discourage families if they want to use a treatment that is considered safe, even if the data don't show it is effective, such as chicken soup for a common cold. "If it's a way of coping, I say go for it, because it's safe," says Dr. Kemper. Families just need to be cautious if a therapy has side effects, is costly or is used instead of a therapy that is known to be effective, she says.

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