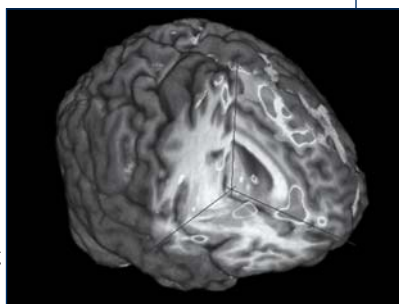


Placebos: Sugar, Shams, Therapies, or All of the Above?



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PET scan of the brain regions— anterior cingulate, dorsolateral prefrontal cortex, anterior insula, and nucleus accumbens—in which the endogenous opioid system and mu-opioid receptors were activated during placebo administration
© J.K. Zubieta

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Ever since NCCAM cosponsored a conference in 2000 on placebos and placebo responses, the Center has funded research to advance knowledge in this area. Members of NCCAM's National Advisory Council for Complementary and Alternative Medicine (NACCAM) heard new developments in placebo research when two NCCAM-supported investigators spoke at the Council's meeting in June 2007. The sessions were open to the public.

What Are Placebos and Their Effects?

Catherine Stoney, Ph.D., NCCAM program officer, served as moderator of the scientific symposium. A placebo response, she said, is one or more beneficial physical

or psychological changes that occurs in response to a placebo—which can be defined in various ways as:

- An inactive substance (for example, a sugar pill) designed to look like an active medication
- A “sham” procedure or device, such as a procedure designed to look like acupuncture but not to deliver treatment effects
- A “therapeutic encounter or symbol,” such as:
 - An interaction with a health care provider
 - Something symbolic in such an encounter (for example, the “white-coat effect” that some researchers have noted).

(continued on pg. 2)

CAM Stakeholders Bring Their Views to NCCAM Dialogue

A rich, multifaceted conversation took place on June 20, 2007, at the “NCCAM Stakeholder Dialogue” on the NIH campus in Bethesda, Maryland.

In an effort to share information and hear the opinions of the many communities interested in complementary and alternative medicine (CAM), NCCAM has held previous stakeholder meetings (also called Town Hall Meetings) in 2000, 2001,



Attendees discussed the Center's activities and priorities

Photos: Bob Stockfield

2002, and 2004. At this year's meeting, NCCAM invited its stakeholders to meet the Center's Acting Director, Ruth L. Kirschstein, M.D.; to express their views on the Center's future activities and priorities;
(continued on pg. 8)

Placebos: Sugar, Shams, Therapies, or All of the Above?

(continued from pg. 1)

Placebos like inactive pills and sham procedures have a history of use in controlled experiments. They allow researchers to obtain a truer picture of the effects of the active treatment under study, above and beyond what might occur over time and due to the expectation of positive benefit. Placebos are also widely viewed as nuisances, however—producers of “noise” that complicate analysis of study data—because sometimes there are therapeutic responses to them.

Increasingly, scientists and clinicians have come to believe that the power of placebos, when harnessed, could potentially enhance health and health care. Studies of placebo effects could also provide insight into the mind’s effects on the body and on practices in the CAM domain of mind-body medicine (such as meditation, hypnosis, and yoga). NCCAM is supporting a variety of studies that are looking at placebos and their effects:

- At many levels, ranging from molecules, cells, and organ systems; to thoughts, emotions, expectations, and interactions; and to social and economic factors
- In many ways, including how they operate in specific diseases and conditions and how they can be enhanced in clinical practice.

“People Get Well in Ways We Don’t Understand”

Ted Kaptchuk is an associate professor of medicine at Harvard Medical School, associate director of the Division for Research and Education in Complementary and Integrative Medical Therapies at Harvard’s Osher Institute, and a member of NCCAM’s Advisory Council. He received his training in Asian medicine in China. Professor Kaptchuk recalled that when he was working as director of a chronic pain unit at a chronic disease facility in the

United States, he saw some improvements that led him to think, “People get well sometimes in ways that we don’t understand. Practitioners usually credit their therapies. Sometimes, it seemed to me that relief and healing had nothing to do with the specific therapy—indeed, that important processes were going on underneath the official therapy. That’s why I became interested in studying the placebo effect.”



Ted Kaptchuk

Professor Kaptchuk describes the placebo response in randomized, controlled trials as a “box” of many complex elements that he and his colleagues are seeking to “unpack.”

In an illustration that he has developed (see figure on pg. 4), the last three bulleted items are the focus of his research.

He described a few of his studies, including one published in 2006 in which he and his colleagues compared the effects of a sham device and an inactive pill with each other and with real treatments. His team was interested primarily in the placebos’ effects. The participants were 270 adults with persistent arm pain from repetitive use.

Each participant was randomized into a so-called acupuncture group or amitriptyline (a type of medication) group. During the first 2 weeks, or “run-in period,” all participants received either the sham acupuncture treatment or the inactive pill. Next, half of each group received the active treatment and the other half received the corresponding sham or placebo. Participants did not know at any time whether they were receiving active treatment or a sham/placebo. The team then looked at various pain outcomes.

Among their findings:

- The sham acupuncture device worked better than the placebo pill (except during

(continued on pg. 4)

CAM at the NIH:

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Lori Arviso Alvord, M.D.,

is a new member of the National Advisory Council for Complementary and Alternative Medicine (NACCAM, see related story on pg. 6). She is associate dean for student affairs and multicultural



Lori Arviso Alvord, M.D.

affairs and assistant professor of surgery and psychiatry at Dartmouth Medical School, Hanover, New Hampshire. Dr. Alvord received her M.D. degree from Stanford University School of Medicine and did her postdoctoral training at Stanford University Hospital and the University of Colorado Health Sciences Center. Her publications include an autobiography, *The Scalpel and the Silver Bear: The First Navajo Woman Surgeon Combines Western Medicine and Traditional Healing* (Bantam, 1999).

After her medical training, when Dr. Alvord returned home to New Mexico to work in a Navajo community, she says, she discovered that “although I was a good surgeon, I was not always a good healer. I went back to the healers of my tribe to learn what a surgical residency could not teach me. From them I have heard a resounding message: Everything in life is connected. Learn to understand the bonds

between humans, spirit, and nature. Realize that our illness and our healing alike come from maintaining strong and healthy relationships in every aspect of our lives.”

Traditional Navajo healers (*hataalii*) use song, symbols

(such as corn pollen, eagle feathers, masks of the Navajo gods, and sand paintings), and ceremony with their patients, and involve family and neighbors in the process. The psychological and spiritual comfort thus provided can prepare patients for surgery, childbirth, or chemotherapy, for example, and speed their recovery afterwards.

Tell us about your background and interest in complementary and alternative medicine (CAM).

Much of my background in CAM comes from being raised in the Navajo culture. The Navajo perspective, including on health and healing, is remarkably different from that of conventional Western culture. Our view, and that of many other tribes, is interested in the well-being of all things. We see humans as part of an embedded matrix that is much larger than we are and is made up of many things: mind, body, and spirit; relationships to other

human beings, nonhuman beings (such as animals), and the natural world; and the air we breathe, food we eat, and water we drink.

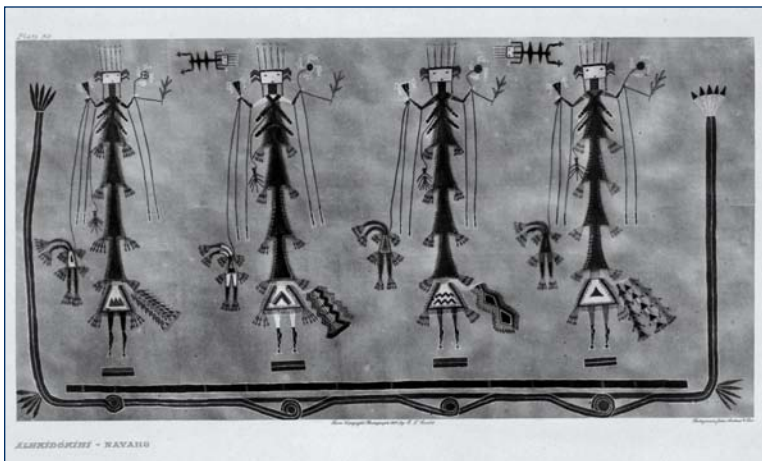
There is also what some Western people call a “spiritual perspective”—a sense that all these are interconnected.

(continued on pg. 10)

Some Examples of Health-Related Beliefs and Practices From Traditional Navajo Culture

- Many Navajo believe that stating something may happen in the future (such as potential complications, including death) will cause the event to occur.
- Family decisions on health matters are commonplace. Families require time to gather and weigh the options with the patient.
- There are many types of traditional healers (such as crystal gazers, herbalists, stargazers, and hand tremblers). The right one is sought out for the patient by the family, for specific problems.
- Therapies may be delayed by the patient so that a traditional healer can be consulted and, on occasion, a ceremony performed in the home.

Excerpted from the Indian Health Service’s “Cross Culture Medicine,” Navajo Area Indian Health Service (www.ihs.gov/FacilitiesServices/AreaOffices/Navajo/naihs-cross-culture-medicine.asp). One resource for further reading is the American Cancer Society’s “Native American Healing” (go to www.cancer.org and enter the title in the search box). ❖



A Navajo sand painting. Among the Navajo and certain other tribes, sand paintings are created with colored sand by a traditional healer as part of a healing ceremony.

Courtesy Northwestern University Library, photo by E.S. Curtis

Calendar of Events

This calendar lists events on CAM in which NCCAM or other components of NIH are sponsors or participants. It includes information available at press time.

September 2007

Meeting of the National Advisory Council for Complementary and Alternative Medicine:

September 5. *Location:* Neuroscience Center Building, 6001 Executive Blvd., Rockville, Maryland. *Information:* nccam.nih.gov/about/advisory/naccam/

October 2007

First International Fascia Research Congress:

October 4-5. *Location:* Boston. *Information:* www.fascia2007.com/index.htm

November 2007

The Status and Future of Acupuncture Research: 10 Years Post-NIH Consensus Conference:

November 8-11. *Location:* Baltimore. *Information:* www.acupunctureresearch.org/2007conference.html ❖

Placebos: Sugar, Shams, Therapies, or All of the Above?

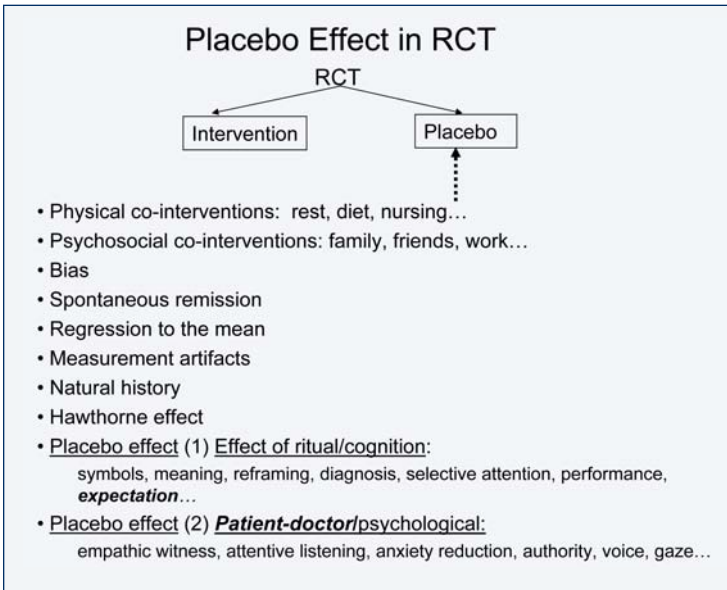
(continued from pg. 2)

the run-in period) on the primary measure of pain and on the severity of symptoms.

- A pain-relieving placebo effect persisted over time—not just for a short time, which is a commonly held belief about placebos.
- Placebo effects may relate to the expectations of participants and the information provided to them. As part of the standard informed-consent process, all participants had been told before the

expectations about pain relief from an actual acupuncture treatment and that used a sham device. This controlled study used fMRI brain imaging to study participants’ brain responses, literally shedding light on multiple pathways and mechanisms of the brain that may play an important role in placebo pain-relief effects. Another study, now being submitted for publication, examines various proposed components of the placebo effect both separately and together.

CAM at the NIH asked Professor Kaptchuk about his future study plans. In addition to further examining the underlying biological mechanisms of placebo effects, he hopes to investigate such issues as whether a “placebo responder” exists; whether placebo effects can be administered in a dose-dependent manner; and whether behavioral methods can amplify and harness the placebo effect in clinical practice and dampen and reduce it in clinical trials.



Used by permission

Components of the response to placebo treatment in randomized controlled trials © T.J. Kaptchuk

study started about possible side effects they might experience if they received an active treatment. Each group was told to expect different side effects. Interestingly, many participants who received only the sham device (about one-quarter) or inactive pill (about one-third) reported they experienced the side effects of the corresponding active treatment. This, said Professor Kaptchuk, also illustrates a strong “nocebo effect”—the flip side of the placebo effect. A person experiences negative, not positive, physical and psychological effects in response to a nocebo.

Professor Kaptchuk described a second study that also worked with participants’

“There Are Perfections in the Brain That Need To Be Exploited”

The second speaker, Jon-Kar Zubieta, M.D., Ph.D., is a professor of psychiatry, radiology, and neurosciences at the University of Michigan Medical School and at the university’s Molecular and Behavioral Neuroscience Institute. His training is in neuroimaging, nuclear medicine, and psychiatry.

Dr. Zubieta has been studying brain activity and responses to placebos in the context of pain and stress. He is interested in the operation of expectations and awareness in placebo effects and even more interested in resilience mechanisms—people’s ability to

mobilize a response, especially biologically, when they believe they are receiving or will receive a treatment that could be helpful. He and his team use positron-emission tomography, or PET (see image on pg. 1), to study the experiences of pain and pain relief (including from placebos) in the brain as they are occurring.

Dr. Zubieta highlighted some of his findings:

- He has seen an almost perfect match across people's responses to placebo treatment, between the release of substances called endogenous opioids (EOs) and lessened sensitivity to pain over time. Endogenous opioids are chemicals that occur naturally in the body and have characteristics similar to those of drugs like morphine.
- In "executive areas" of the brain (areas that integrate information, and also reduce pain through the release of EOs), there is "enormous individuality and variability" among study participants in terms of which regions are activated and how much.
- The brain chemical dopamine appears to be important in pain relief experienced from placebos. Dopamine and its pathways are known to be central in responses to reward and the prospect of reward. Dr. Zubieta thinks that they may also become activated by the prospect of pain relief, including from placebos. This, in turn, may drive systems like EOs that reduce both the pain experience and its unpleasantness.
- Cognitive influences such as thoughts and beliefs, emotions, gender, hormones, and genetics all appear to play a role in how people experience pain, stress, and the placebo response. For example, in preliminary work, Dr. Zubieta found gender differences in how much people's EOs respond to the administration of a placebo. He is trying to shed further light on this area by examining the influence of estrogen and progesterone.



Catherine Stoney and Jon-Kar Zubieta

When asked by an audience member, "Are there imperfections in the human brain that need to be remedied?" Dr. Zubieta answered, "There are imperfections in the human brain that need to be exploited." Among other factors he hopes to study are individual variability in specific genes. "Then," he said, "our knowledge of the biology of the placebo effect can be examined in the context of disease states, including movement disorders, depression, and cardiovascular disease."

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Resource on Dietary Supplement Research Projects

The **CARDS** (Computer Access to Research on Dietary Supplements) **Database** is a way to learn about dietary supplement research projects funded by NIH, the Department of Agriculture, and the Department of Defense. The database is sponsored by the NIH Office of Dietary Supplements. At press time, it covered projects funded from fiscal years 1999 to 2005, with more updates planned. You can search by supplement name, type of study, health outcome/biological effect, and/or other criteria. Records include an abstract and links to pertinent publications. For access (free), go to www.ods.od.nih.gov/research/cards_database.aspx.

Meditation: Evidence-Based Report Released

The Agency for Healthcare Research and Quality has released a new evidence-based report, *Meditation Practices for Health: State of the Research*. The most recent in a series requested and funded by NCCAM, the report is based on 813 studies across five broad categories: mantra meditation, mindfulness meditation, yoga, tai chi, and qi gong. The study focuses on high blood pressure, other cardiovascular diseases, and substance abuse disorders, the conditions for which meditation has been most studied.

The authors, from the University of Alberta Evidence-Based Practice Center in Canada, conclude that because of problems with methods used in the studies (for example, insufficient detail, poor design, or variation between the patient groups studied), it cannot be determined whether meditation practices are effective therapies for these three conditions or which type of meditation is the most effective. The authors suggest more research of higher quality and provide specific recommendations.

You can download the report at www.ahrq.gov/clinic/tp/medittp.htm or request a printed copy at AHRQPubs@ahrq.hhs.gov or 1-800-358-9295. ❖

Six NACCAM Members Appointed



From bottom left to right: 1st row: Ruth Kirschstein, Margaret Chesney. 2nd row: Lori Arviso Alvord, Martin Goldrosen. 3rd row: Margery Gass, Frank Torti, Stephen Barnes. Back row: Fabio Cominelli, Sheldon Cohen. Drs. Kirschstein, Goldrosen, and Chesney are with NCCAM.

U.S. Health and Human Services Secretary Mike Leavitt has appointed six new members to the National Advisory Council for Complementary and Alternative Medicine (NACCAM):

Lori Arviso Alvord, M.D. (see pg. 3), is the associate dean for student affairs and multicultural affairs and an assistant professor of surgery and psychiatry at Dartmouth Medical School, Hanover, New Hampshire. A member of the Navajo Tribe, Dr. Alvord has experience both in conventional Western medicine and in Navajo healing traditions and practices.

Stephen Barnes, Ph.D., is a professor in the departments of pharmacology and toxicology, biochemistry and molecular genetics, environmental health sciences, genetics, and the vision sciences at the University of Alabama at Birmingham (UAB). He is also director of UAB's Center for Nutrient-Gene Interaction, associate director of the Purdue-UAB Botanicals Research Center for Age-Related Diseases, and director of the Mass Spectrometry Shared

Facility at the UAB Comprehensive Cancer Center, where he is also senior scientist.

Sheldon Cohen, Ph.D., is the Robert E. Doherty Professor of Psychology at Carnegie Mellon University, Pittsburgh. He is also an adjunct professor of pathology and of psychiatry at the University of Pittsburgh School of Medicine and

a Member of the Pittsburgh Cancer Institute.

Fabio Cominelli, M.D., Ph.D., is the David D. Stone Professor of Internal Medicine, director of the Digestive Health Center of Excellence, a professor of microbiology and immunology, and chief of the division of gastroenterology and hepatology, University of Virginia Health System, Charlottesville.

Margery L.S. Gass, M.D., is a professor of clinical obstetrics and gynecology and director of the University Hospital Menopause and Osteoporosis Center at the University of Cincinnati.

Frank M. Torti, M.D., M.P.H., F.A.C.P., is the Charles L. Spurr Professor of Medicine and chairman of the department of cancer biology at Wake Forest University School of Medicine and director of the Comprehensive Cancer Center, Wake Forest University, Winston-Salem, North Carolina.

More information about NACCAM is at nccam.nih.gov/about/advisory/naccam/. ❖



How many adults in the United States use CAM? What are their characteristics, attitudes, and behaviors related to health? What CAM therapies do they use and for what purposes?

A large piece of this puzzle fell into place when NCCAM released, in May 2004, results from the largest (over 31,000 respondents) and most representative survey to date on Americans' use of CAM. The results were based on an NCCAM-supported CAM supplement to the Centers for Disease Control and Prevention's 2002 National Health Interview Survey (NHIS).

Since that time, NCCAM has been supporting studies to obtain more detailed information on CAM use—for example, by certain populations (such as women, racial/ethnic minorities, and older people) and for specific health problems or conditions. Findings have begun to appear in the peer-reviewed literature. This occasional column in *CAM at the NIH* will highlight selected findings.

Women

A team of seven authors led by Dawn Upchurch, Ph.D., of the University of California, Los Angeles, School of Public Health analyzed the NHIS responses of almost 17,300 women. About 75 percent of the women were White, and about 60 percent were under age 50. Among their findings about the respondents' use of CAM within the past 12 months:

- Forty percent used CAM.
- Having a higher level of education, being employed, and living in the West were among the factors connected to a higher rate of CAM use.
- Women aged 50 to 59 had the highest rate of CAM use, followed by women aged 40 to 49 and 30 to 39; women aged 70 and older had the lowest rate.



© Digital Vision/Getty Images

- The respondents used CAM for various conditions (see box below), especially for musculoskeletal conditions and chronic pain.
- Most often, they used CAM along with conventional medicine.

The authors analyzed which therapies were most used by looking at the major domains of CAM (for more, see nccam.nih.gov/health/whatisacam/), plus prayer for health. Among these choices, prayer, biologically based therapies, and mind-body practices (in that order) were the types of CAM most used. This study, the authors say, is a starting point and a portrayal of the general social context of CAM use by American women, but many aspects of the topic and of CAM in general remain to be explored.

The Top 10 Medical Conditions for Which Women Respondents Used CAM¹

1. Back pain/problem	15%
2. Head or chest cold	10%
3. Neck pain/problem	7%
4. Arthritis/gout/lupus/fibromyalgia . . .	6%
5. Anxiety/depression	6%
6. Joint pain/stiffness	5%
7. Stomach/intestinal problem	4%
8. Severe headache/migraine	4%
9. Insomnia/trouble sleeping	3%
10. Recurring pain	2%

¹ Percentages have been rounded.

NIH requires that grant applications be submitted via the Web portal Grants.gov (www.grants.gov) using Form 424 (Research and Related, or R&R, application). To find out more, go to era.nih.gov/electronicreceipt.

For more information on these and other funding opportunities, go to nccam.nih.gov/cgi-bin/grants/funding.pl.

RFA-AT-07-004: Mechanisms of Immune Modulation

Sponsors: NCCAM and the National Cancer Institute. This reissue of an announcement from July 2006 is for studies that use state-of-the-art research approaches to investigate mechanisms of action in CAM therapies believed to have effects on immune function. Such therapies may be used with the intent to maintain wellness, reverse the immune decline that often occurs with aging, and prevent the immune suppression that occurs with certain diseases such as cancer and HIV/AIDS. Other potential roles for the therapies include enhancing vaccine responses and supporting defense against biowarfare agents. ❖

(continued on pg. 11)

Spotlight on Clinical Trials

The clinical trials below are among the many NCCAM-sponsored trials that were recruiting, or planning to start recruitment soon, at press time. To see others, go to nccam.nih.gov/clinicaltrials/alltrials.htm. Readers who do not have access to the Internet can inquire with the NCCAM Clearinghouse (see pg. 2).



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Acupuncture and Pain Relief in Fibromyalgia

Fibromyalgia is a chronic disorder that involves widespread pain, tenderness, and stiffness of muscles and associated connective tissue structures, as well as fatigue, headache, and sleep disturbances. In this study, the researchers are seeking to learn more about

- The causes, in the nervous system, of fibromyalgia pain
- The effects of acupuncture on brain activity, including on certain brain receptors (mu-opioid receptors) involved in pain reduction.

A group of women with fibromyalgia will be randomized to receive either real or sham acupuncture. The team will use three imaging techniques: fMRI, PET, and H-MRS.

(continued on pg. 9)

CAM Stakeholders Bring Their Views to NCCAM Dialogue

(continued from pg. 1)

and to give their feedback on NCCAM's core areas of research, research training, and outreach. Representatives from the CAM community were particularly encouraged to attend.

Over 150 people registered for the Dialogue. They represented a diverse constituency: both CAM and conventional health care providers, researchers, university and professional school faculty and students, professional associations, patient advocacy groups, other health organizations, and industry groups.

Margaret A. Chesney, Ph.D., Deputy Director of NCCAM, moderated the Dialogue and invited the audience to comment on three questions:

- What are the greatest opportunities for CAM research in the next few years?
- What are the greatest challenges to conducting CAM research?
- What impact will CAM research have on trends in integrative medicine?

The following are some of the themes that emerged and reemerged.

Research

Among the suggestions presented on research were the following:

- Because CAM and integrative medicine are widely used by many Americans, research to determine the effectiveness and safety of promising treatments should be given a high priority.
- NCCAM should fund more research on health promotion, disease prevention, wellness, and integrative health care.

“Don't focus on what's wrong with us and how to fix it,” said one participant, “but on what's right with us and how to keep enhancing it.... We are interested in optimal health, not just survival.”

- Develop new research methodologies to study whole medical systems, complex combination treatments, and individualized care.
- Use the full array of existing research methods, such as observational, descriptive, longitudinal, preference, comparison, ground, best-case, qualitative, and cluster studies.



Jack Killen, M.D. (right), and Richard Nahin, Ph.D., NCCAM, served as moderators of the “Research” session

- Use practice- or community-based resources.
- Topics that deserve greater attention include the cost-effectiveness of CAM and the impact of patient-provider interactions.
- Continue support for studies on mechanism of action (how therapies work), to better understand therapies and design optimal studies.
- Develop definitions and optimal patient-centered outcome measures or measurement techniques for CAM therapies, focused on emotions, psychosocial effects, and the sense of well-being.
- Continue to pursue opportunities to explore the role of CAM in “personalized medicine” and of genetics in individuals' responses to CAM therapies.

(continued on pg. 9)

(continued from pg. 8)

Research Training

Among the major themes that arose concerning training CAM researchers were the following suggestions:

- Continue to support research training and career development in CAM schools and institutions, and encourage CAM research training in conventional medical schools and universities.
- Provide opportunities in research training for CAM practitioners who may not be eligible or competitive for current NCCAM/NIH funding opportunities.
- Provide support at every stage of independent research careers, through competitive fellowships and career

development awards for both conventionally trained and CAM practitioner applicants.



Outreach

The major themes in outreach included the following suggestions:

- Increase sharing of reliable, science-based information on CAM with all stakeholders, including through NCCAM's Web site.
- Draw on and strengthen ties between NCCAM and the CAM practitioner and patient advocacy communities.
- Work to bridge cultural issues and gaps between the CAM and conventional medicine communities.

Dr. Kirschstein commented, "The participants helped fulfill a vital need for NCCAM to hear and understand the insights of the CAM community. Their perspective will inform our plans as we move forward to meet the goals of our strategic plan. It was an engaging and energizing day."

For more information on the Dialogue, visit nccam.nih.gov/dialogue/ ❖

Spotlight on Clinical Trials

(continued from pg. 8)

Principal investigator: Richard Harris, Ph.D., University of Michigan, Ann Arbor

More information: Go to www.clinicaltrials.gov and enter "NCT00142597" in the search box.



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Osteopathic Treatment for Carpal Tunnel Syndrome

About 15 to 20 percent of American adults have carpal tunnel syndrome, and the condition costs the United States over \$1 billion per year in medical care. Surgery can be a treatment option, but for up to one-third of these patients, the symptoms return. This randomized, controlled pilot study will evaluate the effectiveness of an osteopathic manual (hands-on) treatment in a group of men and women aged 20 to 65 who have carpal tunnel syndrome.

Principal investigator: Scott Stoll, D.O., Ph.D., Osteopathic Research Center, University of North Texas Health Science Center, Fort Worth

More information: Go to www.clinicaltrials.gov and enter "NCT00394043" in the search box. ❖

New Director of OPPE Named

Jean H. McKay, M.L.S., has been appointed Director of NCCAM's Office of Policy, Planning, and Evaluation, effective July 9, 2007. Ms. McKay will oversee the planning, evaluation, and reporting activities for the Center and serve as senior advisor to the NCCAM Director on science, science policy, and other strategic issues.

Ms. McKay came to NCCAM from the National Institute of Allergy and Infectious Diseases, where she served as Director of the Office of Program Planning, Operations, and Scientific Information in the Division of Allergy, Immunology, and Transplantation. She



Jean H. McKay

has held other NIH positions at the National Library of Medicine, the National Cancer Institute, and the National Human Genome Research Institute. She has also worked in the U.S. Food and Drug Administration's Office of AIDS and Special Health Issues. Ms. McKay received her master's degree from the University of Maryland College of Library and Information Science. ❖

Perspective:
Lori Arviso Alvord, M.D.

(continued from pg. 3)

In the Navajo medicine system, we don't look at one organ and try to make it healthy; we look at how it interacts with the rest of the body, how the person is thinking, and how they are doing spiritually.

As one example, we can look at diabetes, which is quite common among Native people. In Western terms, diabetes is a disorder in the pancreas and blood sugar, of intolerance to glucose, etc. However, it can also be viewed as a people having come out of balance with their traditional way of living. It was important for Native people to be very active and strong in order to survive, to do things like hunt, grow plants, and haul water. Also, the traditional Native diet was one of whole foods such as whole grains, fruits, and nuts. They didn't have trans fats or highly processed foods and didn't use a lot of chemicals, sugars, or starches.

We are coming to better understand the effects of the mind on the body, which is often an element in CAM. I have studied the Navajo ceremonies, to interpret them in terms of their ability to provide mind-body interventions and other benefits to health. I also study how we can best deliver surgical care and prepare and sustain our

patients by providing environments that are truly healing.

What environments can help people to heal better?

To start, there is the role (now better understood) that stress and anxiety play in our bodily processes. The more we can ease stress and anxiety, the better medical outcomes we can have. For example, in the surgical setting, people's blood pressure and heart rate can go wildly out of control if they are angry or stressed. It is difficult for patients to receive anesthesia if they are not in the "right place" in their minds and bodies.

I think one of the things that NACCAM does is to bring the perspectives of many people to the table. NCCAM's studies reflect that.

Every part of a patient's experience matters and can affect outcomes. I believe that patients need to be able to trust in the people who are caring for them and feel that they are truly being cared for and respected. They need to have everything carefully explained (taking into account cultural differences and meanings) and have their concerns addressed at each stage. We should provide a place for them that is comfortable and gives them a sense that there are many forces in the universe that can help them heal, such as music, artwork, animals, gardens, and calm places.

What are a few important things that most people could do to improve their health?

The things I discussed before—such as body, mind, environment, and relationships—all matter and require careful attention. I think that in our very busy society, we do not pay enough attention to the needs of our body, to nourish it correctly and give it proper exercise. So, we have an epidemic of obesity, starting in children.

With regard to our minds, we are not thoughtful enough about the things that will help our minds stay healthy. We are ever driven to be more productive, sometimes at the expense of our own sanity and well-being. We live in a faster and faster environment, with e-mail and so much else coming at us so quickly, and we are just supposed to keep up. This can make us unhappy. Unhappiness will present itself in the body somewhere along the way. For optimal well-being, we should nourish ourselves physically, mentally, and spiritually and pay careful attention to our relationships, especially to raising our children.

I am a strong proponent of meditation and of many Eastern philosophies, including Buddhism. Meditation has been extremely helpful in my own life. I also believe strongly in the work of psychiatrists and psychotherapists to help heal the wounds of the past, which I think are at the core of many illnesses. The better we integrate people who work with the mind and those who work with the body, so that they understand and work with each other, the faster we will come to an understanding of healing.

How do you see your role on NACCAM, and what do you hope to contribute?

I think one of the things that NACCAM does is to bring the perspectives of many people to the table. NCCAM's studies reflect that. I think I can offer a dimension both as a surgeon who researches surgical outcomes and as the only Native person on the Council. Many cultures, including those of the Native people, have traditions that reach way back. For example, Natives were the first to use vitamin C to treat scurvy and digitalis to help certain heart conditions. These cultures have wisdom that we are just beginning to think about carefully, understand, and research in the typical scientific way. It may or may not turn out to be the right model, but it's important to keep trying to understand the dimensions of that world. ❖

CAM Use in America: Up Close

(continued from pg. 7)

Racial and Ethnic Minorities

Robert Graham, M.D., and colleagues at the Osher Institute, Harvard Medical School, analyzed the survey data pertaining to CAM use by three racial/ethnic groups: Hispanics, non-Hispanic Blacks, and non-Hispanic Whites. They found that the rates of CAM use by non-Hispanic Blacks (26 percent) and Hispanics (27 percent) were “considerably less” than that of non-Hispanic Whites (36 percent). The CAM therapies these respondents used most were prayer, herbal medicine, relaxation techniques, and chiropractic. There were significant racial/ethnic differences in the use of certain therapies. Some factors associated with CAM use across racial/ethnic groups were being a woman, being age 35 to 54, having a higher level of education, having a higher level of income, having a usual source of medical care, and visiting a health professional within the past 6 months. Hispanics and non-Hispanic Blacks were less likely than non-Hispanic Whites to tell their health care provider that they used CAM. The authors make recommendations for future research, noting that this type of information could help health care providers deliver culturally sensitive care.

Older Adults Who Report Anxiety and Depression

Many adults over age 65 report higher levels of depressive symptoms, but very few of them are diagnosed with or receive conventional treatment for these problems. Joseph Grzywacz, Ph.D., and colleagues at Wake Forest University School of Medicine analyzed data on about 5,800 older adults who reported using CAM, including those who answered yes to a survey question on whether they had “been frequently depressed or anxious” in the preceding 12 months.

About 82 percent of those who reported symptoms of anxiety or depression (A/D) had used CAM (when prayer for health was included in the definition of CAM), compared with 65 percent of those who did not report these symptoms. When prayer was not included, the rates were about 35 percent and 27 percent, respectively. There were no racial/ethnic differences. The A/D group who used CAM mostly used mind-body therapies (especially spiritual practices), relaxation techniques, and nonvitamin/nonmineral/natural products; however, fewer than 20 percent used CAM for their mental health concerns. The authors suggest that this is likely not because these problems are underrecognized and undertreated, but because many older adults believe depressive feelings are a natural part of aging or, overall, have had less experience with “nonspiritual” forms of CAM than younger people have had. They note that their study has limitations (for example, more precise measures of mental illnesses are needed) but that future research could yield more insights on self-management practices for health purposes, including mental health.

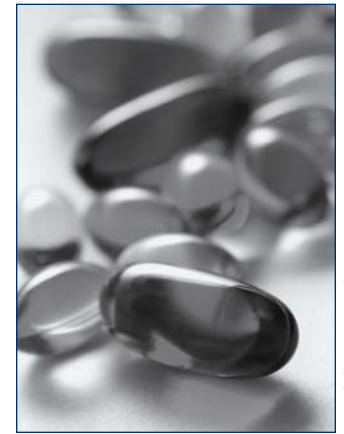
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For more on these and other papers based on the 2002 NHIS CAM data, consult the PubMed database at www.ncbi.nlm.nih.gov/sites/entrez or the NCCAM Clearinghouse (see pg. 2). ❖



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FDA Rule Issued on Dietary Supplement Manufacturing

The U.S. Food and Drug Administration (FDA) issued a final rule on June 22, 2007, that establishes regulations requiring current good manufacturing practices (CGMPs) for dietary supplements. The goal, said the agency, is to prevent inclusion of the wrong ingredients in products, too much or too little of a dietary ingredient, contamination, and improper packaging or labeling.

Robert E. Brackett, Ph.D., Director of FDA's Center for Food Safety and Applied Nutrition, noted that the CGMPs should increase consumers' confidence in the quality of supplements they purchase and also provide for more accountability in the manufacturing process. A related action will require, by the end of 2007, that manufacturers report all serious adverse events related to dietary supplements. For more information, see www.fda.gov/consumer/updates/dietarysupps062207.html. ❖

CAM at the NIH:

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More Information

The following new NCCAM publications are available on the Web and from the NCCAM Clearinghouse (see pg. 2):

- Herbs at a Glance fact sheet: *Astragalus* (nccam.nih.gov/health/herbsatagance.htm)
- *CAM Use and Children* (nccam.nih.gov/health/children/index.htm)

* * *

On June 22, 2007, NCCAM Acting Director Ruth L. Kirschstein, M.D., presented NCCAM's **Fiscal Year 2008 Budget Request** before the U.S. Senate Subcommittee on Labor-HHS-Education Appropriations. You can read the text of Dr. Kirschstein's remarks at nccam.nih.gov/about/offices/od/directortestimony/0607.htm.

* * *

Patrick Mansky, M.D., spoke on **CAM and pediatric cancer** on July 8, 2007, as part of an expert panel on "The Group Room," a radio show. Dr. Mansky is Director of the Integrative Medicine Consult Service, NIH Clinical Center (see the Spring 2007 issue). To listen to the program, go to www.vitaloptions.org and click on "Listen to past shows."

* * *

You can now view **results from many NCCAM-funded studies** (formerly included in a "Research Roundup" column in this newsletter) by using the resources on the "Research Results" page on NCCAM's Web site, at nccam.nih.gov/research/results. ❖

NCCAM Exhibits at Upcoming National Meetings

American Society for Microbiology Interscience Conference on Antimicrobial Agents and Chemotherapy, September 17-20, Chicago

American Osteopathic Association Annual Convention and Scientific Seminar, September 30-October 4, San Diego

American Academy of Family Physicians Scientific Assembly, October 3-6, Chicago

American Academy of Pediatrics National Conference and Exhibition, October 27-30, San Francisco

Society for Neuroscience Annual Meeting, November 3-7, San Diego

American Public Health Association Annual Meeting and Exposition, November 3-7, Washington, D.C.

American Academy of Family Physicians and Society of Teachers of Family Medicine Conference, November 8-11, Newport Beach, California

Society for Integrative Oncology International Conference, November 15-17, San Francisco ❖