



ORWH Women's Health Seminar Series

# Women and Pain

**November 1, 2005**

1-3 p.m.

Lipsett Amphitheater

Building 10

NIH Campus

## **Is Chronic Pain a Women's Health Issue?**

Roger Fillingim, Ph.D.

University of Florida College of Dentistry

## **The Pains of Endometriosis**

Karen J. Berkley, Ph.D.

Florida State University

## **Chronic Migraine and Women's Health**

Richard B. Lipton, M.D.

Albert Einstein College of Medicine, New York

## **Fibromyalgia: A Personal Look at Chronic Pain**

Katherine M. Woodbury-Harris, Ph.D.

National Institute of Neurological Disorders  
and Stroke

## **Questions and Answers**

The seminar series, sponsored by the Women's Health Seminar Committee of the Office of Research on Women's Health, is open to the public. Registration is not required. Sign language interpretation will be provided. If accommodations for other disabilities are needed, contact the Office of Equal Opportunity at 301-496-6301. For more information on the seminar, call 301-402-1770.

## **Is Chronic Pain a Women's Health Issue?**

**Roger B. Fillingim, Ph.D.**

Chronic pain is a major public health problem in the United States, and chronic pain should be considered a women's health issue, because abundant evidence suggests that women are at greater risk than men for developing many chronic pain conditions. This presentation will give an overview of what we know about sex differences in pain by discussing findings from community studies and clinical research, as well as laboratory studies of sex differences in pain perception. Research investigating sex differences in the effectiveness of pain medications will also be reviewed.

Several findings have emerged from population-based studies and clinical research. Community surveys indicate that the prevalence of pain is higher among women than men. Clinical research demonstrates that specific pain disorders, including fibromyalgia, temporomandibular disorders, irritable bowel syndrome, and many forms of headache occur more frequently in women. Also, some (but not all) evidence suggests that women report more pain following surgery. Another line of research has indicated that certain pain medications seem to work more effectively in women than in men.

A great deal of laboratory research has examined whether women and men perceive pain differently. These studies consistently show that women have lower pain thresholds and tolerances than men; however, the magnitude of the sex differences in pain perception seems to vary across studies and may be influenced by factors such as the sex of the experimenter.

Undoubtedly, these sex differences in responses to pain and its treatment are determined by multiple factors. For example, genetic factors appear to play a role in pain perception and responses to medications. Interestingly, some genetic markers contribute to pain only in women, while others seem to matter only for men. Also, psychosocial factors influence pain significantly and may contribute to sex differences. For example, gender role expectations, coping styles, and affective distress have all been related to sex differences in pain.

In summary, chronic pain is a major public health concern, which disproportionately affects women. Considerable information indicates that women and men experience pain differently, and there is growing evidence that the factors that influence pain may differ across sex. It is imaginable that a better understanding of these sex differences in pain may benefit women by allowing clinicians to tailor treatments based on their specific needs.

## **Chronic Migraine and Women's Health**

**Richard B. Lipton, M.D.**

Migraine is an extraordinarily common disorder by almost any standards. It affects nearly 30 million Americans, 18% of American women and 6% of American men. The striking female preponderance of migraine, the increasing risk in females relative to males after menarche, and the decline in the gender prevalence ratio after menopause suggests that cyclical hormonal factors influence the risk of migraine. In addition, women with migraine are more likely to have severe attacks in the peri-menstrual period, most likely due to the influence of estrogen withdrawal. In comparison with men,

women report more severe pain, more headache-related disability, and higher levels of health care utilization. Gender differences in migraine provide points of comparison with other chronic pain disorders.

**The Pains of Endometriosis**  
**Karen J. Berkley**

Endometriosis is a disease defined by the presence of endometrial tissue outside of the uterus. Severe pelvic pain is often associated with endometriosis, and this pain can be diminished with therapies that suppress estrogen production. Many women with endometriosis also suffer from other chronic pain conditions. Recent studies suggest that mechanisms underlying these pains and sensitivity to estrogen involve the growth into the ectopic endometrial tissue of a nerve supply, which could have a varied and widespread influence on the activity of neurons throughout the central nervous system.

**FIBROMYALGIA: A Personal look at Chronic Pain**  
**Katherine M. Woodbury-Harris**

Fibromyalgia is the most common cause of pain in women. It is largely a diagnosis by elimination and is characterized by pain above and below the waist and tender points in the muscles throughout the body. There are other symptoms as well, the most prevalent being sleep disorders and fatigue. There are no real therapies, but there are many possible ways to approach management of the pain, sleep disorders, and fatigue. I will cover some of those strategies in more detail including alternative medical approaches. These include, but are not limited to yoga, exercise, stretching and conditioning, nutrition, acupuncture, pharmaceuticals to alleviate some of the pain, fatigue and sleep disorders, and the “inner game of maintaining a positive attitude.

### **Karen J. Berkley, Ph.D.**

Dr. Karen Berkley is a Distinguished Research Professor in the Department of Psychology and the McKenzie Professor of Neuroscience at Florida State University. She also is an Honorary Professor of Anatomy at University College in London. She received her Ph.D. from the Department of Physiology and Biophysics/Psychology at the University of Washington in Seattle prior to her appointment at Florida State University. Dr. Berkley's research interests are in the neural mechanisms of pain, particularly towards understanding pelvic pain in females. She is recognized as a pioneer and leader in the field of basic research on the mechanisms of visceral pain. Her current focus on pain resulting from endometriosis has benefited from collaboration in parallel clinical research studies. She has been the recipient of several NIH grants to support her research. Dr. Berkley has served as an expert on three National Academy of Sciences, Institute of Medicine committees and as Councilor for both the Society for Neuroscience and the International Association for the Study of Pain. She has an extensive publication list including book chapters, peer-reviewed journal articles, and reviews on pelvic pain, especially related to women's health. Additionally, she has served on the editorial boards of a number of journals and is currently on the editorial board of Pain, Journal of Pain, Somatosensory and Motor Research and The American Journal of Physiology.

### **Roger Fillingim, Ph.D.**

Dr. Roger Fillingim received his Ph.D. in Clinical Psychology from the University of Alabama at Birmingham in 1990 and completed his internship at Duke University Medical Center. His postdoctoral training was performed at the University of North Carolina at Chapel Hill, which he finished in 1994. He is currently an Associate Professor at the University of Florida College of Dentistry and a staff psychologist with the North Florida South Georgia VA Health System. For the past several years, Dr. Fillingim's research has been focused on understanding the nature of sex differences in pain and analgesia, and the complex biopsychosocial factors underlying sex-related influences on pain. His work is recognized internationally as crucial to the field, and he is considered a leading expert in this area of research. He currently serves on the editorial boards for 4 peer-reviewed journals. Dr. Fillingim published more than 100 scientific articles or book chapters, edited two books, and was the author of a third book on pain. Dr. Fillingim is the recipient of multiple grants from the National Institutes of Health and is a frequent speaker at national and international meetings.

### **Richard B. Lipton, M.D.**

Dr. Richard Lipton is Professor and Vice Chair of Neurology, and Professor of Epidemiology and Population Health at the Albert Einstein College of Medicine in New York. Dr. Lipton earned his medical degree at the University of Chicago, Pritzker School of Medicine. He completed his medical internship at Northwestern Memorial Hospital in Chicago, a neurology residency and clinical neurophysiology fellowship at the Albert Einstein College of Medicine, and a neuroepidemiology fellowship at Columbia University. He is a diplomate of the American Board of Psychiatry and Neurology and a fellow of the American Academy of Neurology. He is also the Lotti and Bernard Benson Faculty Scholar at the Albert Einstein College of Medicine, and principal investigator of the Einstein Aging Study. He maintains a clinical practice as Director of the Montefiore

Headache Unit and attending physician at Montefiore Medical Center in the Bronx, New York. Dr. Lipton holds leadership positions in several professional societies. He served on the executive committees of the American Headache Society and the International Headache Society. He is an Associate Editor of two scientific journals, *Cephalalgia* and *Headache* and is on the editorial boards of several others, including *Neurology*. Dr. Lipton's research and clinical interests include headache epidemiology and clinical trials, cognitive aging and dementia, as well as, outcomes research. He has published more than 300 original articles and reviews and 6 books on headache, epidemiology, and health services research. He has twice received the H.G. Wolff Research Award from the American Headache Society for excellence in headache research and is the co-recipient of the Medical Book Award from the British Medical Association for his text "*Headache in Clinical Practice*". He is co-editor of "*Wolff's Headache and Other Head Pain*" and the lead author of the U.S./U.K study on Migraine and the quality of life, published in the Journal, *Neurology*.

**Katherine M. Woodbury-Harris, Ph.D.**

Dr. Katie Woodbury-Harris received her Ph.D. in Physiological Psychology and Neurophysiology at Arizona State University and completed her postdoctoral training at Georgetown University. Dr. Woodbury-Harris has worked at the National Institutes of Health for 24 years as a Scientific Review Administrator. She led a review panel for ten years, which reviews grant applications in the areas of stroke, neurotrauma, and pediatric disorders. For the past five years, Dr. Woodbury-Harris has been the Scientific Review Administrator for the Clinical Trials Review Committee at the National Institute of Neurological Disorders and Stroke. She is on the Program Committee for the Stroke Council for the American Heart Association, the Board of Councilors for the National Neurotrauma Society and the Board of Advisors for the Spring Brain Conference, and is a frequent speaker at national and international meetings.