

The Newsletter of THE AMERICAN INSTITUTE OF STRESS

Number 6

1993

CALL FOR PAPERS

SIXTH INTERNATIONAL MONTREUX CONGRESS ON STRESS

February 21-23, 1994

Grand Excelsior Hotel, Montreux, Switzerland

Includes Sessions devoted to Occupational Stress, Stress And The Skin, Psychosocial Aspects of Coronary Heart Disease, Stress And Subtle Energies (electromagnetic fields, music, aromatherapy), Post Traumatic Stress Disorder, Psychoneuroimmunology, Stress and Pain, Workshop On Oriental Stress Reduction Approaches, etc. For additional information, contact Jo Ann Ogawa, The American Institute Of Stress, 124 Park Avenue, Yonkers, NY 10703. Phone (914) 963-1200, (800) 24-RELAX. Fax (914) 965-6267, (914) 377-7398.

HIGHLIGHTS FROM OUR FIFTH CONGRESS

Lennart Levi, M.D., Ph.D. was the recipient of the Hans Selye Award at The Fifth International Montreux Congress on Stress, conducted at the Grand Hotel Excelsior in Montreux Switzerland, February 14-19, 1993. Professor Levi is Chairman of the Department of Stress Research at Karolinska Institute, which he founded. The Fifth Congress featured sessions devoted to Occupational Stress, Post Traumatic Stress Disorder, Stress and Sudden Death, Stress and the Gut, Stress and Cholesterol, Stress and Coronary Heart Disease, Stress and

Aging, New Advances in Stress Reduction Using Subtle Energies, Oriental Stress Reduction Workshop, and Stress and Social Support, presented by distinguished scientists from the U.S., Europe, Scandinavia, Russia, Africa and Japan. This issue contains selected abstracts from the Fifth Congress.

ALSO INCLUDED IN THIS ISSUE

Help For Menopausal Males.....	2
Explaining The Links Between Stress and the Gut.....	2
Stress, Stress Reduction and Serum Cholesterol.....	3
Stress And The Irritable Bowel Syndrome.....	4
Stress and Heartburn.....	5
Reducing Stress With Photic Biofeedback.....	5
Stress Related Neuroendocrine Responses and Disease.....	6
How Does Stress Cause Alexithymia?.....	6
Stress And Chronic Pain.....	7



Lennart Levi, M.D., Ph.D. at center with Dr. Paul J. Rosch, President of The American Institute of Stress and Dr. Claude Rossel, Exec. VP of the Biotonus Clinic, co-sponsors of the Fifth Congress.

The NEWSLETTER OF THE AMERICAN INSTITUTE OF STRESS is published monthly. Annual subscription rate \$35.00 (U.S.), \$45.00 (Foreign). Copyright© 1993 by The American Institute of Stress, 124 Park Ave., Yonkers, N.Y. 10703. 1-800-24-RELAX. All rights reserved.

The Newsletter of
**THE AMERICAN INSTITUTE OF
 STRESS**

Paul J. Rosch, M.D., F.A.C.P.
 Editor-in-Chief

**Contributing Editors from The Board of Trustees of
 The American Institute of Stress**

Robert Ader, Ph.D., Rochester, NY
 Herbert Benson, M.D., Boston, MA
 Michael E. DeBakey, M.D., Houston, TX
 Joel Elkes, M.D., Louisville, KY
 Bob Hope, Palm Springs, CA
 John Laragh, M.D., New York, NY
 James J. Lynch, Ph.D., Baltimore, MD
 Kenneth R. Pelletier, Ph.D., M.D., Berkeley, CA
 Ray H. Rosenman, M.D., San Francisco, CA
 Charles F. Stroebel, Ph.D., M.D., Hartford, CT
 Alvin Toffler, New York, NY
 Sue Thomas, RN, Ph.D., Baltimore, MD

Help For Menopausal Males

All females experience a state of menopause, which, as its name implies, is characterized by a cessation of menses. Many also suffer from vasomotor symptoms of hot flashes and sweats, and emotional complaints such as depression and irritability. Some males may also tend to experience similar "change of life" symptoms around the fifth or sixth decade, as well as a sharp decline in sexual function due largely to a variety of erectile problems. Other menopausal complaints which may be seen in both sexes include fatigue, dryness of the skin, and increased joint pain and stiffness. In females, many of these symptoms appear to be due to diminished production of estrogen which causes a marked increase in follicle stimulating hormone (FSH) production from the pituitary in a futile attempt to stimulate the ovaries to manufacture more estrogen. It is these high levels of FSH which are responsible for most menopausal complaints, and estrogen replacement therapy may provide very effective treatment. In menopausal males, although testosterone levels are usually normal, a significant increase in pituitary follicle stimulating hormone is also frequently seen. This suggests that the difficulty here is not a lack of testosterone, but rather that some degree of testos-

terone resistance has developed which interferes with its normal effects, including its ability to suppress FSH production. It also raises the question as to whether testosterone supplementation might correct this problem.

This issue was resolved in a presentation delivered at our Fifth International Montreux Congress on Stress which included detailed clinical and endocrine studies in over four hundred male patients with menopausal type complaints. These, as well as other signs of premature aging appeared to be due to a relative rather than absolute deficiency of testosterone. Some of the factors which may have contributed to this included stress, alcohol, obesity, lack of exercise, prior vasectomy, mumps, and certain medications. Treatment with various forms of testosterone over several months produced excellent results in the vast majority of cases, with significant improvement in both physical and psychological parameters. Extensive biochemical studies, including liver function tests, lipid profiles, and measures of prostatic activity revealed no abnormalities, and there were no other adverse effects noted. This proposed new testosterone resistance syndrome may explain a variety of disturbing symptoms experienced by middle aged males. More importantly, treatment is safe and effective, particularly with respect to the marked improvement in sexual function that was demonstrated.

A New Testosterone Resistance Syndrome

Malcolm Carruthers - Positive Health Centre, London
 Fifth International Montreux Congress on Stress

*Is it not strange that desire should so many years
 outlive performance?*

Shakespeare

Explaining The Links Between Stress And The Gut

Physicians have long recognized the impressive effects of emotional stress on varied aspects of

(Continued on page 3)

(Continued from page 2)

gastrointestinal function. During the Civil War, the influence of emotions on gastric secretion and motility were vividly demonstrated by Beaumont in a soldier with a gastric fistula which permitted direct visualization of the stomach, and subsequently, Walter Cannon demonstrated the ability of stress to interfere with swallowing mechanisms. Since then, stress has been linked with peptic ulcer, irritable bowel syndrome, ulcerative colitis, heartburn, diarrhea, and other disturbances of the gut in numerous reports. These effects appear to be mediated by a variety of influences. Attempts have been made to explore this in experimental animals, usually by noting the pathologic results following the application of a severely noxious stimulus. Such types of severe stress may occur in humans, and result in acute ulcers, as is seen with severe burns. However, the vast majority of clinical GI problems are usually related more to individual personality characteristics, as well as more subtle types of stress. Another factor which influences animal studies is that the effects of experimental stress may differ in animals that are isolated as opposed to those in groups. As a consequence, it has been difficult to develop an animal model of stress related gastrointestinal disease that has clinical relevance.

Some of these concerns were addressed at our recent Fifth International Montreux Congress on Stress, where a new model of mental stress in rats was presented. This obviates some of these problems by utilizing a fear conditioned emotional response that more closely simulates clinical situations. Research using this model has shown that stress can markedly increase the frequency of colonic contractions and has facilitated further investigation as to how this is mediated. The most important factor seems to be an increase in the central nervous system production of corticotropin-releasing factor (CRF). This does not involve the usual pituitary-adrenal pathways, since it occurs even when the pituitary has been removed. In addition, central nervous system (CNS) release of dopamine also plays a role via effects that include activation of the vasopressinergic pathway. These observations have provided considerable insight into how certain drugs affect the gut and may lead to promising new medications. Tranquilizers like

Valium reduce stress induced colonic hypermotility by suppressing the CNS release of CRF. However, other chemicals also achieve reduction of motility by acting at more peripheral sites. These findings may have important implications with respect to treating stress related bowel disorders such as irritable bowel syndrome (IBS), which is characterized by an increase in colonic motor activity.

Other research suggests that certain personality or behavioral characteristics seem to be associated with specific GI complaints. IBS patients tend to be compulsive, and highly sensitive to psychosocial stresses. Those with ulcers are more apt to have dependence versus independence problems, and are more affected by stresses stemming from professional or family responsibilities. In patients suffering from ulcerative colitis, loss of important emotional relationships, and feelings of self deprecation appear most likely to cause relapses. It is obviously difficult to develop experimental models that would reflect these characteristics. In addition, stress is not an objective and well defined tool that produces unique or characteristic responses in animals, and its effects are more apt to be a function of the severity of the stressor and the environmental milieu. In humans, the effects of stress on the gut are more apt to be modulated by personality and behavioral factors.

CNS Regulation Of Colonic Motility Under Stress

Lionel Bueno INRA - Toulouse-Cedex

Stress-Induced Digestive Disturbances In Humans And Animals

Serge Bonfils - Hopital Bichat, Paris

Fifth International Montreux Congress on Stress

Stress, Stress Reduction and Serum Cholesterol

It is a frequently over-looked biochemical fact that 75% of blood cholesterol is endogenous. Cholesterol is produced in the liver, largely under the influence of stress, and only 25% comes from dietary fat intake. When one considers the varied but profound influences of stress on blood fats, coagulation factors, platelet clumping, adrenaline and noradrenaline secretion and other life-style

(Continued on page 4)

(Continued from page 3)

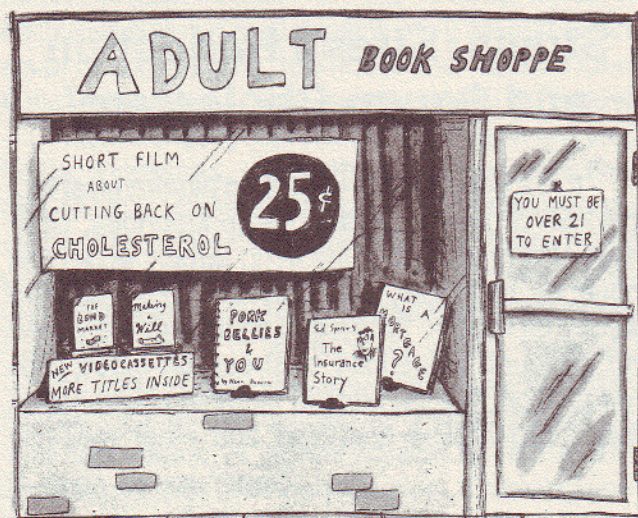
cardiotoxic effects, it can truly be said, that where heart disease is concerned, "It's not what you eat but what's eating you".

Support for this bold statement comes from numerous research studies demonstrating both that stress raises the level of various blood fats, and that relaxation reduces them. Forty years ago, Groover, Jernigan and Martin showed that stress-induced cholesterol fluctuations and "earthquakes" were much better predictors of impending heart attacks, than mean levels of cholesterol. The elegant studies of Dr. Ray Rosenman and his colleagues provided further proof of this, and more importantly, explained how Type-A behavior modification could lower coronary events. More recent research suggests that atherosclerotic coronary lesions can actually be made to regress utilizing a combination of relaxation, stress reduction strategies, exercise and diet.

While anxiety induced adrenaline release can contribute to sudden death from cardiac arrhythmias, it appears to be noradrenaline surges in many Type A stress addicts that causes most problems. Various studies reveal that this may trigger a chain of events that elevates free fatty acids, triglycerides and cholesterol levels, and can also cause direct myocardial damage. Fortunately, most of these archaic, stone-age responses to stress that still automatically occur in space-age man, can be effectively reduced by relaxation techniques such as Autogenic Training, and the oldest stress management technique of all, meditation.

Stress, Relaxation And Blood Fats

Malcolm Carruthers - Positive Health Centre, London
Fifth International Montreux Congress on Stress



Stress And The Irritable Bowel Syndrome

The irritable bowel syndrome (IBS) is a common disorder of intestinal dysfunction characterized by variable symptoms of abdominal pain, diarrhea, constipation and bloating. Patients with mild complaints are usually seen and treated in a primary care setting. Those who experience intense and/or continuous symptoms have a significantly impaired quality of life, and are more frequently apt to be referred to medical centers for more extensive diagnostic workups and therapy. In this latter group, daily life stress, traumatic events, psychiatric co-morbidity, abnormal illness behavior and other psychosocial disturbances are more frequent. However, until recently, their precise role in all patients with IBS was not clear with respect to distinguishing cause from effect.

Data from epidemiologic studies now suggest that psychosocial disturbances are not characteristic or distinctive for IBS *per se*, but rather influence how the sufferer tends to experience symptoms. This in turn greatly affects the patient's subsequent illness behavior and health care utilization habits. The diagnosis and gradation of IBS is based on excluding the presence of organic disease and rating positive symptoms of abdominal pain and bowel dysfunction. However, effective treatment requires a more personalized approach that includes a psychosocial evaluation of the patient to foster a more complete understanding of how illness is experienced and subsequently influences symptom severity and behavioral patterns.

This biopsychosocial approach to treatment focuses on incorporating the patient's symptom pattern and behavior. A graduated, multicomponent plan of care includes education and dietary recommendations for mild symptoms, and behavioral and pharmacological treatments directed toward specific GI complaints for those with moderate illness. Patients with severe and/or refractory illness may require psychopharmacologic medications in addition to behavior modification.

The Biopsychosocial Approach To The Irritable Bowel Syndrome

Douglas A. Drossman - University of North Carolina, Chapel Hill
Fifth International Montreux Congress on Stress

Stress And Heartburn

Heartburn is a very common complaint. It may occur in patients with esophagitis, hiatus hernia, ulcers and other pathologic processes involving the upper gastrointestinal tract. In many cases, it is accompanied by epigastric discomfort or pain and there is no obvious organic cause, a syndrome variably referred to as Non-Ulcer Dyspepsia (NUD), essential dyspepsia or functional dyspepsia. Although *Helicobacter pylori* is frequently found in NUD, it does not appear to account for or contribute to the symptomatology. Gastric acid secretion is normal in NUD patients and the gastric mucosa is not abnormally sensitive or hyperresponsive to either acid or duodenal contents.

Recent studies have suggested that the problem may be due to a disturbance of normal afferent and sensory pathways that mediate brain-gut relationships. Although the frequency of stressful life events in NUD patients does not particularly differ from controls, affected individuals do have a significantly higher negative perception of stressful life events. This was confirmed by recent data demonstrating that events which were highly threatening or which caused significant frustration, were strongly associated with NUD (98% in NUD and 2% in controls.) As with other stress related disorders, NUD patients also showed high scores for anxiety, neuroticism and depression.

With respect to treatment of NUD, gastrointestinal medications proved no more effective than placebos. However, short term psychotherapy did reduce the frequency and severity of symptoms compared to controls, even after one year of follow up. This provides further support for the important role of stress in this disorder.

Non-Ulcer Dyspepsia-Physiology, Diagnosis And Treatment

Gerhard Dotevall - University of Goteborg, Goteborg
Fifth International Montreux Congress on Stress

Many people think they have religion when they are troubled with dyspepsia.

Robert G. Ingersoll

Reducing Stress With Photic Biofeedback

A variety of biofeedback strategies have been used for the treatment of stress related complaints by monitoring changes in skin temperature muscle tension, and EEG activities. Over the past decade, there has been increased interest in novel approaches utilizing other types of sensory stimulation and feedback. The Relative-1 System represents the culmination of nine years of research based on the fusion of optical drive and biofeedback technologies to reduce stress by stabilizing autonomic nervous system activities. This optically driven brain wave feedback system analyzes brain wave patterns, and generates a signal that is transformed into an appropriate photic signal or stimulus. This is then relayed via an optical link so that the individual becomes aware of its nature and variance from brain waves of optimum frequency. As this process takes place continuously and repeatedly during a relaxation session, brain wave frequency and other aspects can be altered to produce a predominant alpha rhythm characteristic of relaxation.

The Relative-1 System incorporates another effective method of stabilizing the autonomic nervous system through the use of relaxing music and auditory influences. This is facilitated by the use of the Pioneer Bodysonic chair that includes an amplifier and built-in speakers. These convey not only relaxing music to the ears, but also soothing vibrations to the entire body in a synergistic fashion that enhances the stress reduction effects of this unique, self optically-driven, brain wave feedback system.

An earlier version of this photic feedback system has previously been utilized for the treatment of patients with various stress related complaints. Autonomic nervous system status was evaluated by means of skin conduction, muscle tension, cardiovascular, and other parameters. Patients with neurotic symptoms showed significant improvement following treatment compared to a control group who also had their eyes shut, but received no photic feedback. Psychological tests also confirmed greater relaxation in the group that had received active photic-EEG biofeedback compared to controls.

This technology appears to induce a psycho-
(Continued on page 6)

(Continued from page 5)

physiological response that leads to an altered level of consciousness and generalized mental and physical tranquility, while preserving a state of awareness. It is quite different and much more profound than the relaxation achieved by simply sitting in a comfortable position with the eyes shut. Other studies have also shown that this approach provides significant improvement in patients with depressive and eating disorders that are frequently resistant to treatment. These and other stress related disorders are often accompanied by disturbances in circadian and other rhythms associated with alterations in melatonin and other neuropeptides. Recent research confirms that subtle electrical and photic energies may have important influences in this regard. It is possible that the benefits observed with this new approach are achieved by a normalization of disturbances in biological rhythms, and further research may confirm this and also identify ways to improve treatment results.

The Application Of A Photic Feedback System To Psychosomatic Medicine

Hank Evers - Pioneer Communication of America, Upper Saddle River

Fifth International Montreux Congress on Stress

Stress Related Neuroendocrine Responses And Disease

Psychological coping with daily stressors induces complex neuroendocrine responses via the central and autonomic nervous systems as well as hypothalamic-pituitary-adrenal axis and neurotransmitter humoral secretions. These affect a host of body activities involved in maintaining the homeostasis of cardiovascular, metabolic and immune functions, and also modulate emotions and behaviors.

Active coping with stressors on an intermittent basis increases sympathetic-adrenomedullary arousal and ultimately suppression of adrenocortical hormone secretion. This promotes a strong and positive response that fosters emotional stability and enhances immune system activities, and therefore may result in a "positive stress reaction". During passive and long term coping, sympathetic nervous system arousal appears to be associated with stimulation of adrenocortical secretion and suppression with immune function. This may contribute to or result in neuroticism, fear, anxiety, and

cardiovascular, gastrointestinal diseases, and disorders due to immune system disruption.

Empirical observations suggest that in adults with autoimmune diseases such as rheumatoid arthritis, systemic lupus erythematosus and ulcerative colitis, levels of cortisol and dehydroepiandrosterone sulphate are substantially lower than those found in healthy patients or those suffering from illnesses that have no obvious immune system participation. Furthermore, in children with recurrent psychosomatic abdominal pain, basal cortisol levels were also found to be reduced when compared to healthy controls.

These clinical observations seem to be at variance with many conventional concepts of the contributory role of the pituitary-adrenal axis pathway to the above and other related diseases. What is particularly required at present are more sophisticated psychological studies that can improve our ability to assess the influence of passive coping on pituitary-adrenocortical function. This will provide greater insight into the mechanisms of action that mediate stress-related disorders.

Psychoendocrinology Of Life Stress

Bartolomé de la Torre - Karolinska Institute, Stockholm
Fifth International Montreux Congress on Stress

Stress And Alexithymia

In alexithymia associated with various post traumatic stress disorders (PTSD), there is a sharply reduced capacity to experience and express feelings, and also to perceive the emotions expressed by others. This is somewhat paradoxical, since although the sense of familiarity, pity, concern for others, or the solacing sensation of union with a "Higher Power" may be diminished, the expression and perception of anger and fear are not only intact, but intense. These latter responses appear to be predominantly associated with left hemisphere activity. In contrast, both joyous euphoria and the depression of defeat are more associated with the right hemisphere. Some of the structures and mechanisms that are involved in this have been identified. In the brain stem, the locus ceruleus and the raphe are responsible for switching on and off dreaming, and such species preservative actions as grooming, sexuality and parenting. It is proposed that these activities are focused in the right hemisphere, and involve dopamine, serotonin, cor-

(Continued on page 7)

(Continued from page 6)

ticosterone, and oxytocin effects. On the other hand, the regulation of catecholamines and thyroid hormones is governed more by the brain's left hemisphere. Stress seems to change this relationship and balance. The initial responses to challenge to control are irritability and aggressive anger. As the threat persists and/or progresses, fear, and subsequently depression reflect the perception that control is being lost. Gonadotrophin secretions decrease, and there is a marked shift in social behavior from concern for others, to a focus on self preservation. As Selye's General Adaptation Syndrome evolves further, there is a withdrawal from effective social participation, and the organism settles into an alexithymic state; observing and copying, rather than actively participating. This appears to be associated with a diminution of normal right hemispheric activation by trans-callosal connections, and hippocampal damage may become evident as the state becomes a trait.

Alexithymia As A Stress Response

James Henry - Loma Linda University School of Medicine, Loma Linda

Fifth International Montreux Congress on Stress

Stress And Chronic Pain

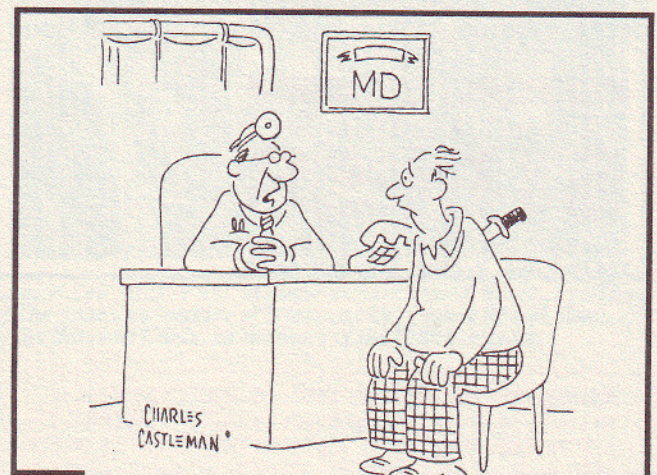
The most common cause of absenteeism is chronic pain of undetermined origin. This can be a perplexing problem for physicians who have to diagnose, treat, or evaluate patients with complaints of chronic headache, neck or low back pain, especially when there are no obvious physical causes or positive diagnostic tests. The economic repercussions are staggering. The most common type of disabling chronic pain is low back distress, which currently affects more than 2 percent of the population. Low back pain is responsible for 5 percent of all adult visits to doctors, and the price tag for those who are unable to work because of this is in excess of 50 billion dollars annually due to health care costs and compensation awards. As a recent article noted, "there's a skyrocketing number of patients receiving disability payments, most often for lower back complaints, and huge jury awards for 'pain and suffering' that no scientist can measure."

Many experts believe that current medical and legal practices may be a contributing factor. Chronic pain may result from a repetitive cycle of physical

and emotional problems that feed on one another to perpetuate the problem. Some individuals who experience temporary discomfort may tend to believe they have a serious underlying condition, and in some instances, this can cause increased tension and muscle spasm that aggravates their pain and disability. In addition, sophisticated diagnostic workups that include MRI's, CAT scans, and exotic tests, may convince healthy people that they have a serious disorder, and their symptoms become magnified. The prospect of significant monetary awards based on precedents set by the courts based on pain, suffering and disability can have overt and covert influences. Not infrequently, "prolonged sick leaves and law suits that drag on for years also allow patients to get out of shape which only makes the pain worse". Although some individuals may fake pain for financial gain, inappropriate emotional responses that convert trivial injuries to lifelong disabilities are a much greater problem.

Attempts to show a significant relationship between chronic low back pain and abnormalities on x-ray or imaging studies have not been very successful. However, low back distress complaints do correlate with other factors such as job satisfaction, depression, and the resolution of litigation. It is interesting that the United States currently has many more people disabled with complaints of lower back problems than any other nation in the world. It may also be significant that surveys of medical records reveal that prior to World War II, chronic low back pain was actually a rare diagnosis. As the Director of one prominent University pain clinic noted "all the evidence suggests that for most people, chronic pain is a stress related disorder, just like ulcers. The difference with pain is that we don't know where to put the tube to look".

The New York Times-December 29, 1993



"Finding the cause of back pain is often difficult, but let's give it a stab."

Book Reviews • Meetings and Items of Interest

Book Review

TREATING PTSD: Cognitive-Behavioral Strategies, Foy, D.W. ed. Guilford Press, New York 1992, 172 pages, hard \$45.00, paper \$16.95.

The purpose of this offering is to outline the application of behavioral approaches to the assessment and treatment of individuals exposed to certain common types of human induced psychological trauma. It is based on treatment protocols that have been developed and utilized effectively in various PTSD treatment centers with expertise in dealing with particular demographic groups. This includes both Veterans Administration and non governmental affiliated medical centers dealing with combat related trauma, and addresses individual as well as group therapy techniques. However, a major focus is on the evaluation and treatment of Post Traumatic Stress Disorder (PTSD) problems frequently encountered in civilian life. Particular chapters are devoted to the special needs of battered women, as well as adults and children who have experienced sexual assault. These presentations are enhanced by illustrative case material, and provide useful particulars as to what information is required, the types of questions to be asked, how they should be phrased, and under what circumstances they should be posed with respect to timing, the presence or absence of other individuals, etc. Other assessment strategies are also reviewed and discussed. A variety of cognitive treatment strategies are outlined and explained, including Stress Inoculation Training, Thought Stopping, Guided Self Dialogue, Flooding, as well as Cognitive Restructuring, and Skill Training Procedures. Figures, tables, and diagrams are of good

quality, and references are comprehensive and up to date. This book appears directed primarily to graduate students, rather than those actively involved in the treatment of PTSD. While it is informative to learn more about different cognitive approaches, it is not always clear as to when each may be specifically indicated or will most likely be superior to others. In addition, there is no discussion of the role of pharmacological therapy and how or when it should be used in conjunction with the various cognitive-behavioral approaches presented.

Meetings and Items of Interest

October 1-3 Harvard Medical School, Massachusetts General Hospital, Department of Psychiatry - Psychopharmacology, Westin Hotel, Boston (617) 432-1525

October 2-4 Psycho-oncology V: Psychosocial Factors In Cancer -Risk and Survival, Rockefeller Research Laboratory Auditorium, Memorial Sloan-Kettering Cancer Center, New York, NY (212) 639-6754

October 6-10 American Association of Electrodiagnostic Medicine, New Orleans, LA (507) 288-0100 or (507) 288-1225

October 21-24 Energy Medicine and Body/Mind/Spirit Integration, A National Association of Holistic Healing Conference, San Diego, CA (804) 422-9033

October 29-31 Harvard Medical School, Massachusetts General Hospital, Department of Psychiatry - Treating Personality Disorders, Westin Hotel, Boston (617) 432-1525

ISSN # 1047-2517.

The Newsletter of
**THE AMERICAN INSTITUTE OF
STRESS**

124 Park Ave., Yonkers, New York 10703

Non-Profit Organization
U.S. Postage
PAID
Yonkers, NY
Permit No. 400