The Newsletter of
THE AMERICAN INSTITUTE OF
STRESS

Number 6 1990

Stress-Reduction Videos — A Hot Premium Incentive

Premium giveaways or awards with a company's logo somehow tied into a product are a $16 billion a year industry. At the most recent 15th Annual Premium Incentive Show in New York, 1,800 exhibitors demonstrated their wares to some 34,000 potential customers over a three-day period. Some of the items are quite ingenious, such as a personal alcohol breath tester imprinted with a corporate name or slogan designed to reduce company liability for intoxicated employees returning home from company picnics or parties. There is also a talking crystal ball which actually floats in midair through a combination of magnets and rapidly alternating electrical current based on the technology developed for the bullet train in Japan. You can ask it questions designed for a yes or no answer and then pass your hand over the globe and you get one of 28 preprogrammed responses with varying degrees of agreement or disapproval. Another device known as "The Congratulator," allows workers to give themselves a pat on the back by pulling a string on the shoulder-mounted contraption which activates a wooden hand.

Other items are much more simple, such as a jump rope with a corporate logo designed to imply or connote physical fitness, health, and fun. One of the hottest items were stress-reduction videotapes and cassettes, usually marketed by mail-order or sold through bookshops and health stores. One company ordered 500 stress-reduction tapes featuring the soothing sounds of rain forests, birds, and zithers for their salesmen. They manufacture a massage oil designed to induce relaxation and will test market combining the two items to see if sales increase. As its president noted, "everyone is pretty aware of the cost of stress and the pleasures of relaxation."

Wall Street Journal, 5-4-90

ALSO INCLUDED IN THIS ISSUE

Amicability and Injury in Air Traffic Controllers

A variety of reports suggest that a strong social support system is a powerful anti-stress buffer. Conversely, hostile behaviors and social isolation are associated with a vareity of adverse health consequences. In one report, 416 air traffic controllers were evaluated for Type A and Type B behavior and then separated into subgroups based upon whether they were liked or disliked by fellow workers and followed for over two years to track their injury and health records. Injury rates in liked and not liked Type B individuals were the same, with an average value of 2.0. The rating for liked Type A individuals was almost double at 3.8, but injury rates for not liked Type As were more than four times greater at 8.5. A correlation was also demonstrated between the stress of life change events and subsequent injury using the Holmes-Rahe approach.

The Journal of Psychosomatic Research, 33:177-186

For further information on the original source of abstracts and other reprints available on similar subjects, please send a self-addressed stamped envelope to: Reprint Division, American Institute of Stress, 124 Park Avenue, Yonkers, NY 10703.

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The Newsletter of
THE AMERICAN INSTITUTE OF
STRESS

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

Can Death Be Postponed Or Take a Holiday?

According to a recent report, some elderly individuals appear to be able to postpone their own death, at least for a few days, if something important for them is coming up. Such a possibility has been suggested by numerous anecdotal reports, and appears to be confirmed by a recent 25-year review of deaths in Chinese living in California. Events most likely to cause postponement of death included an important holiday, birth of a grandchild, graduation, or an anniversary or marriage of a loved one. The California studies showed that mortality among elderly Chinese "showed a 35% decline in the week preceding the annual Harvest Moon Festival" and a 35% increase the following week. A similar phenomenon has been observed in Jews in the week before and after Passover. The effect of holidays was so strongly linked to postponement of death that it could be demonstrated for a variety of different disorders but was most prominent among individuals with conditions related to stroke, heart disease and cancer. These observations give further support to the powerful influence of the mind and emotions on disease processes.

Palm Beach Post, 4-11-90

"I am ready to meet my maker, but whether my maker is prepared for the great ordeal of meeting me is another matter."

Winston Churchill

Can Stress Reduction Delay Cancer Deaths?

According to a recent well-publicized report, stress-reduction therapy can prolong the lives of women with metastatic breast cancer by an average of a year and a half. In addition, their quality of life was improved with diminished problems due to anxiety and pain. The study was started about 13 years ago to evaluate the short-term effects of group therapy on patients with advanced breast cancer. Its original purpose was merely to make the individuals feel better and enjoy a better quality of life. These group sessions were designed to reduce anxiety, fear, and depression by teaching self hypnosis and encouraging social interactions. Reports in the popular press had suggested that patients could conquer cancer by positive thinking, and tracking the outcome of this group could determine whether the positive approach fostered any such benefits.

The original premise was that there would be no improvement in mortality rates, but surprisingly, the treatment group lived a full year and a half longer than controls. Of the three women who were still alive after ten years, all had been in the therapy group. Control and intervention groups were carefully compared with respect to the type and degree of surgery, chemotherapy, radiation, age at time of diagnosis, time between diagnosis and spread of cancer, time between spread of cancer and entry into the study, etc. It had been suggested that the group therapy may have caused a change in mental attitude that made the patients follow their doctor's orders more closely with respect to diet and medication or that their reduced pain may have permitted them to be more active than the control group. Some physicians have expressed concern that these findings might encourage unskilled practitioners to substitute psychotherapy for proven treatments or give patients a sense of guilt as their disease progresses by inferring that this is their responsibility or is otherwise under their control. It is conceivable that the stress reduction effects in the treatment group improved immune system defenses against further cancer growth.

Science, 10-27-89

"All say, 'How hard it is that we have to die' — a strange complaint to come from the mouths of people who have had to live."

— Mark Twain

Did Stress Cause "Bill" Marriott's Heart Attack?

According to his doctors, it did. The hard-working CEO had felt some chest pain after he climbed aboard an AMTRAK train, and was promptly taken to a hospital where a heart attack was confirmed. He was hospitalized for two weeks and was told to stay away from his office for another four. A devout Mormon who strictly avoided alcohol and tobacco, his regular checkups had always revealed a low blood pressure and cholesterol level, so that he had none of these standard risk factors. However, he did have a hectic and stressful work schedule with little time for relaxation. Since his heart attack, things have changed a little and his 14-hour workdays have been reduced to 10 or 12. In addition, he now takes time out to exercise regularly and to relax.

The company presently includes 534 hotels operating under five names and 1,100 restaurants which are either operated or franchised. In addition, the corporation also provides food services under contract to airports, colleges, and companies. The Marriott family owns about a quarter of the public stock (value over a billion dollars) and stockholders have had more than a 20 percent return every year in 1980. Keeping up the quality of the operation and the degree of return has been a stressful burden for this dedicated CEO. He generally gave 40 or 50 speeches and visited over 200 locations each year, where he would usually "spend 10% of his time talking to a manager about occupancy rates and 90% about how he's taking care of his people." Marriott plans to scale down to only 100 visits this year, noting that "staying home for a few weeks convinced me that I'm not a good retiree . . . That's the easiest way to kill yourself I know of . . . to retire early. You've got to stay active, keep your mind active and your body active." Many of his duties are now being assumed by other family members so that he can spend more time with his nine grandchildren and pursue his many other interests which include being on the board of General Motors, The National Geographic Society, and the Boy Scouts of America.

USA Today, 12-11-89

"Most people would succeed in small things if they were not troubled by great ambitions."

— Henry Wadsworth Longfellow

Racial Hypertensive Responses to Stress

Over 200 undergraduate male black and white students were subjected to several stressful situations, including immersion of a foot in ice water for 90 seconds, pressing a switch as fast as possible after the appearance of a target word on the screen or competitive tasks with a paired subject in which the winner is awarded a monetary prize. In general, blood pressures were similar in black and white subjects during the resting state and no differences were found in either heart rate or diastolic blood pressure increases during stress. However, when those subjects with marginally elevated systolic pressures were subjected to stress, a greater hypertensive response was seen. This appeared to be due to increased peripheral resistance. Of interest was the observation that in both blacks and whites with marginally elevated blood pressures, readings were consistently higher when they were taken by a technician than with automated blood pressure equipment. However, it is not clear whether this increased responsiveness in the laboratory setting correlates with greater blood pressure rises during ordinary daily activities.

Hypertension, Vol 10, pgs. 555-563, 1987

"The art of medicine consists of amusing the patient while nature cures the disease."

— Voltaire

Avoiding the Stress Of Driving

Driving can often be a stressful experience, especially when commuting to work or arriving on time for an important appointment, when unanticipated traffic delays occur. The following tips have been suggested to deal with the stress of driving:

1) When you stop at a red light, take your hands off the steering wheel and stretch. If you start to get muscle aches in your back, neck, or shoulders, pull over to the side and adjust your seat, but don't try to do it while driving.

2) Keep some gum or candy in your glove compartment since chewing is sometimes useful for relieving tension.

3) Try to make a practice of admiring the scenery or new car models. Focus on pleasant thoughts, such as an upcoming vacation.

4) Make certain that your radio or tape deck is not too loud and vary listening between music and talk shows to avoid monotony. Keep some favorite tapes on hand and avoid stressful newcasts.

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Avoiding the Stress Of Driving

(continued from page 3)

5) Pretend you are a popular singer and sing along with the vocalist on the radio or a tape. If you have to stop because of a traffic jam or a very long red light, take time out to groom yourself by combing your hair, powdering your nose, adjusting your tie, or cleaning your glasses. On long trips, make regular pit stops so that you can get out and stretch your legs.

6) Always allow adequate time to reach your destination and if you are running late, stop to call in with a new estimated arrival time.

7) If you sense you are lost, ask for assistance as soon as possible, rather than driving around aimlessly.

National Enquirer, 4-5-88

"In America there are two classes of travel — first class, and with children."

— Robert Benchley

Further Questions about Hostility, Cardiac and Overall Mortality

Hostility has hit the headlines lately as the major component of Type A behavior responsible for heart attacks. The vast majority of studies use a subscale of the 50-year-old MMPI questionnaire as the method for measuring hostility. Some critics believe that this approach may not really measure hostility and that it correlates more with overall mortality. In an attempt to examine this, 1,400 college students who had completed this questionnaire as part of their freshman orientation in 1953 were interviewed by telephone 33 years later. Current health status was available for 94% of this cohort, and it was found that higher hostility scores on the MMPI did not predict either deaths from heart attacks, incidences of heart attacks or total mortality. These findings are at variance with other research. Possible explanations are that hostility may not be a risk factor for all populations, that at age 18-30, this particular approach does not reflect a stable characteristic or that it is an inadequate measure of hostility.

Journal of Behavioral Medicine, Vol 12, pgs. 105-122, 1989

Stress Reduction Effects of Controlled Restricted Environments

A decade or so ago, isolation tanks in which the individual floated on a warm, buoyant surface in a dark, silent atmosphere, deprived of light and sound, were touted as stress-reduction devices. Proponents claimed that 40-50 minutes of this promoted a restful sense of inner awareness and alleviated the stress of noxious environmental stimuli. That fad seems to have been surpassed by a new approach which not only completely shields individuals from the outside world, but introduces a controlled environment including a positive ion atmosphere, special fragrances, and soothing music and audio and visual cues designed to promote relaxation and creativity. Such computer controlled environments are now being promoted for stress management, motivation, relaxation, sales training, creativity, etc., and are claimed to be helpful for smoking and weight control. One commercial unit, which sells for about $30,000, consists of a soundproof booth 7 feet tall, 4 feet wide, and 6 feet long. Once the subject is seated comfortably inside the controlled purified or ionized temperature environment, the lights dim and a computer-controlled program begins utilizing a combination of voices, music, nature sounds, pictures and images presented in a sequence designed to promote deep relaxation and serene solitude. According to one manufacturer, the user leaves with a sense of peace, calm, and improved motivation. While subjects are in this state of deep relaxation, the mind is allegedly more receptive to new information and learning, and creativity is enhanced. Such controlled, restricted environment devices are being increasingly used by athletes to improve performance and by others to reduce stress-related headache, backache, and muscular spasm. While claustrophobics apparently still have problems, anecdotal reports of benefits suggest that this technique can provide significant stress-reduction benefits for some individuals.

Environ Corporation and
2nd International Congress on Stress

"Meetings are indispensable when you don't want to do anything."

— John Kenneth Galbraith

Is Peptic Ulcer Due to Stress, Infection or Both?

Peptic ulcers are one of the hallmarks of the response to acute stress in laboratory animals. Many patients suffering from this condition also complain that their symptoms are worse following periods of emotional stress, and the same is true for patients with heartburn and acid indigestion. This relationship is supported by studies which show an increased amount of acid and enzyme secretion during stressful situations. Alcohol and smoking have also been incriminated, because of their irritant effect on the lining of the stomach and ability to increase acid secretion and these factors are often stress related. In the last few years, however, a small bacterium found in the lining of the stomach has increasingly been thought to play an important role in peptic ulcer. Originally known as campylobacter, it has now been renamed helicobacter. This organism has been recovered from the stomach lining of almost all patients with duodenal ulcers, and four out of five of those with stomach lesions. Doctors report that killing the bacteria with antibiotics can cure these ulcers and prevent recurrence in a dramatic fashion. The virus is fairly common, and although approximately 15 to 33 percent of the population harbor the germ, only a few have ulcer symptoms. It is believed that in these latter individuals, inflammation and infection of the lining of the stomach is initiated which predisposes to the subsequent development of the actual ulcer lesion. Almost all patients infected with helicobacter show some evidence of inflammation of the stomach on biopsy, even if they feel entirely well. It is believed that the bacterium increases the acid content of the stomach which might explain its ability to lead to ulcer formation. Following antibiotic therapy, high acidity levels return to normal and the organism disappears. In general, this infection responds to ordinary antibiotics and also Pepto Bismol, a preparation containing bismuth. Doctors have prescribed bismuth for stomach problems for 200 years, but never understood why it worked. Recent research now demonstrates that it can cripple these ulcer-causing bacteria.

It is not clear how helicobacter infection develops. It is far more common in the elderly, and does occur in epidemic proportions in underdeveloped countries. In South America and Africa, more than 80 percent of the population are infected, including those who are very young. Years of infection may contribute to the relatively high rate of stomach cancer and ulcers common in these regions. Since antibiotic treatment is becoming more common, there is concern that a resistant form of the organism may develop. One physician enthusiast recently noted, "We offer antibiotic treatment to everyone who walks in with ulcer symptoms . . . patients with chronic indigestion think its magic."

New York Times, April 26, 1990

"Classical music is the kind we keep thinking will turn into a tune."

— Kin Hubbard

Living Alone Can Be Hazardous to Your Health

The most recently released government figures indicate that health costs have more than doubled since 1980. Americans spent $2,124 per person on health care in 1988 and the nation's total health bill was $540 billion, accounting for 11.1% of the gross national product. While many blame the medical profession for this escalating health care bill, a recent report suggests that problems associated with the increased loneliness of modern life may be a significant factor. A variety of studies both in the United States and abroad covering large populations, all found the highest mortality in "those who have the weakest social ties — as measured by marital status, contracts with family and friends and church and other group affiliations." Indeed, the study concluded that "social isolation is as great a threat to health as smoking." Mortality rates for socially isolated males were 100 to 300% higher than for controls with strong social ties. Socially isolated females had a 50 to 150% higher mortality rate. Problems associated with social isolation are increasing. About 10% of young adults will never marry and half of those who do, ultimately divorce. One child in four is born out of wedlock, and a quarter of all children currently live with a single parent. This would seem to be a fruitful field for social planners who could improve both the quality of life and reduce medical expenditures by anticipating and addressing problems associated with social isolation.

Business Week, 3-5-90, Palm Beach Post, 5-4-90

"Intelligence is to intellectual as chicken is to chicken soup, a desirable but not inevitable ingredient."

— Thomas P. Millar

The Stress of Organ Donation

Organ transplants are increasing rapidly and in most instances, the demand far outstrips the supply. This is obviously stressful for potential recipients for whom this may literally be a matter of life or death, depending upon whether or not a suitable donor can be found in time. However, it can also be a very stressful procedure for those making a decision to donate, according to one recent study. Ninety percent who had donated a close relative's body for organ retrieval would do it again, but would like the process to be less stressful. The vast majority agreed to the donation for altruistic reasons such as helping another individual or easing the grief of a lost loved one by doing something positive and useful. However, many were dissatisfied with the manner in which the request had been made or the matter had been handled. More than one out of four complained that they had been forced to make a decision too soon and before they had a chance to deal with their own grief about an inevitable approaching or very recent death. Others were offended by what they perceived as an insensitive and unfeeling approach by medical personnel. In addition, a significant number indicated that they would have liked more feedback on just how the donated organs had been used and how effective they were functioning.

Wall Street Journal, 11-23-89

"All philosophy is a form of confession."
— Friedrich Nietzche

Mental Stress and Silent Ischemia

Most patients with angina due to myocardial ischemia will have typical symptoms following physical exertion, meals, and/or emotional excitement. Recently attention has focused on patients with electrocardiographic evidence of significant ischemia that occurs in the absence of any chest distress or angina. Such patients can be identified by the results of ambulatory ECG monitoring or treadmill testing which has to be halted because of dangerous changes even though the patient has no symptoms. Concern has been expressed about patients with silent ischemia since in the absence of pain or any other warning sign they may continue to engage in activities that could prove harmful. A New England Journal of Medicine report had previously described a number of patients with silent ischemia who had significant thallium imaging defects consistent with ischemia as a consequence of mental stress, public speaking, etc., suggesting that such patients might be at risk as a result of these activities in addition to strenuous physical exertion. A recent pilot study was designed to examine cardiovascular reactivity to mental stress both in patients who were symptomatic and those with silent ischemia. Three types of mental stress were employed: white noise (a passive stressor), digits repeated backwards (an active stressor), and a math task plus white noise (active plus passive stressor). There were significant increases in heart rate and blood pressure with the mental stress tasks, but no silent ischemic episodes were demonstrated in the coronary disease patients without symptoms. Those patients who had exercised induced ECG ischemia seemed to show lesser autonomic responsiveness to mental stressors. The group with silent ischemia had significantly lower blood pressure rises than controls or patients complaining of angina. The conclusion from this very small study was that ischemic episodes were not easily induced by mental stress. This is in contrast with prior reports as noted above and may be due to the fact that the intensity of mental stress and/or its duration was insufficient to provoke this effect. The suggestion that asymptomatic patients with silent ischemia have diminished autonomic responsiveness, particularly in terms of increased peripheral resistance when compared to healthy controls or symptomatic patients is intriguing. It is not clear whether this blunted reactivity, if confirmed, may influence the provocation of unrecognized ischemic events.

Clinical Cardiology, Vol. 12, Nov. 1989, pg. 634-638

"Nothing in education is so astonishing as the amount of ignorance it accumulates in the form of inert facts."
— Henry Adams

Getting Serious about Stress Reduction And Humor

One of the latest hot corporate trends is the use of humor to help stressed-out employees. The going rate for the dozen or so humor consultants who offer these services is about $5,000 for a half day session. In general, their seminars feature childish games, and constructing comical situations to promote laughter and the type of "reckless, rowdy" behavior characteristic of pre-schoolers. One physician in demand is Steve Allen, Jr., who appears to have inherited his famous father's sense of humor. His clients include CitiCorp, NYNEX, and South Central Bell Telephone. He believes that "this is an effort by American management to apply the Japanese management style to our culture. The Japanese believe that when people feel good about their colleagues and their work, they do better in their

(continued on page 7)

Getting Serious about Stress Reduction And Humor

(Continued from page 6)
jobs." His approach is to get the audience to act silly using such techniques as juggling brightly colored scarfs to the beat of disco music and group games and activities to teach them "how to play the way they did when they were three-year-olds."

USA Today, 11-28-89

"Experience enables you to recognize a mistake when you make it again."

— Franklin P. Jones

Mental Stress and Cardiac Function

A large body of evidence suggests that emotional stress can play an important role in the pathogenesis of coronary heart disease. However, much of the support for this is anecdotal and critics would like to see more objective proof of this relationship. One of the most significant predictive parameters of cardiac function is the ejection fraction which measures the force with which the left ventricle ejects blood during contraction. When heart tissue has been injured, ejection fraction values fall, and more significantly, do not show the usual increase seen during stress. The significance of this finding may be appreciated by recognizing that coronary by-pass procedures are generally not performed when patients demonstrate low values or fail to show significant increases when physically stressed. In one recent study, patients with coronary artery disease and normal volunteers were evaluated following various types of both mental and physical stress. Psychological stress consisted of: mental arithmetic, a color word test, and a personally relevant speaking task. In normal individuals, ejection fractions were flat or slightly increased during mental tasks, but rose significantly during exercise. In patients with coronary disease and low ejection fraction, a paradoxical decline in this value ws noted during mental stress. In no instance was there any evidence of chest pain or electrocardiographic alteration despite the obvious impairment of left ventricular function. This study demonstrates that mental stress-induced abnormalities can produce significant changes in cardiac function without any accompanying symptoms or electrocardiographic evidence of abnormality. The inference is, therefore, that such patients may be at considerable risk because of the absence of any of the usual warning signs when they are exposed to emotional stress.

The American Heart Journal, 118: 1-9-89

Type A Behavior And Angina

Anginal chest pain is commonly associated with increased emotional stress or excitement. Similarly, there is a significant relationship betweeen Type A behavior and coronary mortality. Researchers were interested in determining whether stressful Type A behavior was also associated with an increase in anginal complaints. The records of 5,770 men and 719 women who had been followed for twenty years in the Framingham study were compared. Despite similar risk profiles in terms of blood pressure, cholesterol, weight, diabetes, cigarette smoking, and alcohol intake, Type As had more than twice as much angina than Type Bs. However, there was no increased incidence of heart attacks or cardiac deaths although both Type A and B men and women with angina had four times the risk for subsequent coronary events than those without this complaint. These findings suggest that uncomplicated angina occurs more frequently in Type A persons than in Type Bs and cannot be explained by the presence of any other risk factor.

Snapshot, CVR & R, January, 1990

"Many would be wise if they did not think themselves wise."

Gracian

More on the Health Benefits of Marriage

A recent Princeton University Study of single, married, widowed and divorced men and women in 16 developed countries over the past 50 years, reveals that average mortality rates for unmarried men are twice as high as married controls. Men between the ages of twenty and thirty who had been divorced or widowed, were more than twenty times likely to die than those with mates! Death rates for unmarried women were one and a half times greater, except in Japan, where they were three times higher for both sexes. The researchers noted that individuals who are not healthy might be less likely to marry. However, they suggested that a far more plausible explanation was that having a mate allows one to cope better with the increasing stresses of modern life.

Gannett Westchester Newspapers 5-15-90

"The scientific theory I like best is that the rings of Saturn are composed entirely of lost airline luggage."

Mark Russell

Book Reviews • Meetings and Items of Interest

"Clinical Relaxation Strategies," by Kenneth L. Lichstein, John Wiley & Sons, New York, 1988, 426 pps., $53.70, .

This book provides a comprehensive review of the major *meditative techniques and stress reduction approaches such* as progressive relaxation, breathing regulation, and other forms of autogenic training. It is quite comprehensive and contains more than 1,700 references dealing with the history of each technique, its methodology and clinical applications. A special segment is devoted to the inclusion of relaxation strategies as part of an overall package of stress management for anxiety, phobias, Type A behavior, substance abuse, pain management, etc. Mechanisms of action are detailed and the use of various relaxation techniques in some 30 different disorders is well annotated. There is a limited discussion of hypnosis and biofeedback as stress management and relaxation tools, but these approaches are discussed in terms of their relevance to other relaxation strategies. This book is highly recommended for those interested in learning more about autogenic relaxation strategies and their clinical applications.

Meetings and Items of Interest

July 5-8, 9th Annual Role of Exercise and Nutrition in Preventive Medicine, Snowmass, CO, ISC Division of Wellness (813) 686-8934.
July 6-7, Cardiac Wellness and Rehabilitation, Lake Tahoe, NV, Medical Education Resources (800) 421-3756.
July 11-14, 9th Annual Role of Exercise and Nutrition in Preventive Medicine, Orlando, FL (813) 686-8934.
July 15-20, National Wellness Conference, Stevens Point, WI, National Wellness Institute (715) 346-2172.
July 16-20, Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions, Kyoto, Japan (215) 566-1054.
July 16-20, A Holistic Approach to the Immune System: Nutritional, Environmental and Stress-Related Factors, Rhinebeck, NY, Omega Institute, RD2, Box 377, Rhinebeck, NY 12572, (800) 862-8890.
July 22-27, Balancing Commitments to Family and Profession, The Clinic, Crested Butte, CO. Contact Jayne Roberts (1-800) 288-7377.
July 22-27, Physicians and Their Families: Stresses of Modern Medical Practice, Crested Butte, CO, The Menninger Clinic, (800) 288-7377, ext. 5994 or (303) 349-7561, ext. 705.
July 23-27, *Providing Stress Management Training to Individuals and* Groups, Atlantic City, Mid-Atlantic Educational Institute, 309 North Street, West Chester, PA 19380, (215) 692-6886.
July 23-27, Door County Summer Institute, Egg Harbor, WI, Columbia Hospital Psychotherapy Center and University of Wisconsin Dept. of Psychiatry, (414) 961-3448.
July 30-August 3, Door County Summer Institute, Egg Harbor, WI, Columbia Hospital Psychotherapy Center and University of Wisconsin Dept. of Psychiatry, (414) 961-3448.
August 6-10, Door County Summer Institute, Egg Harbor, WI, Columbia Hospital Psychotherapy Center and University of Wisconsin Dept. of Psychiatry, (414) 961-3448.
August 8-22, Humanism and Caring in Medical Care, Kenya, East Africa, Temple University School of Medicine, (215) 221-4787.
August 13-17, Family and Marital Dynamics; Advances in Treatment of Anxiety/Depressive Disorders, North Falmouth, MA, Massachusetts Mental Health Center, Harvard Medical School, (617) 743-1300.
August 16-19, *Workshop on Clinical Hypnosis, Reno, NV, American* Society of Clinical Hypnosis, (708) 297-3317.
August 17-18, Cardiac Wellness and Rehabilitation, Monterey, CA, Medical Education Resources, (800) 421-3756.
August 19-31, Pathogenesis of Neuroimmunologic Disorders, Woods Hole, MA, Marine Biological Laboratory, (508) 548-3705.
August 20-24, Hormonal Modulation of Brain and Behavior, Buffalo, NY. International Society of Psychoneuroendocrinology, (716) 877-7965.
August 27-29, Tutorial in the Tetons: Stress and the Heart, Moran, WY, American College of Cardiology, (800) 253-4636.
August 27-31, 7th Annual Cape Cod Summer Symposia: Group Psychotherapy: Healing Through Relationships, Cape Cod, MA, New England Educational Institute, (413) 499-1489.
Sept. 5-19, Women's Health for the 1990's, Kenya, East Africa, Temple University School of Medicine, (215) 221-4787.
Sept. 13-16, Workshops on Clinical Hypnosis, Kansas City, KA, American Society of Clinical Hypnosis, (708) 297-3317.
Sept. 14-16, Introduction to Medical Hypnosis, New York, NY, Society for Clinical and Experimental Hypnosis, (315) 652-7299.
Sept. 21-22, *Cardiac Wellness and Rehabilitation, Atlantic City, NJ,* Medical Education Resources, (800) 421-3756.
Sept. 23-27, Second European Conference on Traumatic Stress, Noordwijkerhout, The Netherlands, National Institute for the Victims of War. Contact Mirjam Bossink, P.O. Box 13362, 3507 LJ Utrecht, The Netherlands +31-30-730811.
Oct. 19-20, Cardiac Wellness and Rehabilitation, New Orleans, LA, Medical Education Resources, (800) 421-3756.
Nov. 2-4, The Severely Disturbed Adolescent: Evaluation and Management, Boston, Mass., Massachusetts General Hospital Dept. of Psychiatry, (617) 432-1525.
Nov. 15-18, Psychiatric Medicine in the 90's, Phoenix, AZ, Academy of Psychosomatic Medicine, 5824 N. Magnolia, Chicago, IL 60660, (312) 784-2025.
December 12-14, International Conference on Healthy Lifestyles, Leningrad, USSR, N. Bederova, Kirov Institute of Advanced Medical Studies, Leningrad 193015, (812) 2725206 or University at Penn, Des Moines, IA 50316, (515) 263-5582.
December 29-Jan. 1, 1991, 10th Annual Role of Exercise and *Nutrition in Preventive Medicine, Breckenridge, CO, ISC Division of* Wellness, (813) 686-8934.

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