

The Newsletter of THE AMERICAN INSTITUTE OF STRESS

Number 1

1993

STRESS AND ABNORMAL HEART RHYTHMS IN INTERNS

A variety of recent law suits have raised concerns about the rigorous hours of internship and residency training, because this may contribute to mental fatigue and impaired decision making. Many states now limit the number of consecutive hours that medical house staff officers can work. In addition to mental and emotional problems, the stress of medical training may also have adverse effects on the heart, according to a recent study. Twenty-four hour ambulatory electrocardiograph monitoring was used to determine the incidence of abnormal heart rhythms in 20 healthy house staff physicians while on duty, and levels of perceived stress and fatigue were also measured during this time period. Eight of the doctors had evidence of mitral valve prolapse, which can be associated with an increase in abnormal rhythms. Other factors such as sleep deprivation and caffeine intake were also evaluated. Abnormally rapid heart rates were more frequent in interns while they were on call, and those with higher stress and fatigue levels had significantly more premature atrial and ventricular

contractions, as well as other evidence of increased ventricular irritability. Neither mitral valve prolapse, sleep deprivation, or caffeine intake had any significant effects either alone or in combination. These observations provide further support for the contention that emotional stress and fatigue can contribute to irregularities of the heart in normal, healthy normal subjects.

Journal of Electrocardiology, 25:333, 1992

Stress, Behavior, and Sudden Death

Research over the past decade has significantly increased our appreciation of possible links between stressful emotions such as anger and fear and heart attacks, as well as sudden death due to ventricular fibrillation. Daily stresses can produce significant myocardial ischemia, and severe irregularities of heart rhythm of which the patient is completely unaware, and considerable progress has been made in developing behavioral stress tests to study these important and common problems. More recently, certain sleep states have been found to be associated with both myocardial ischemia and cardiac arrhythmias. Such problems are particularly apt to occur during the rapid eye movement (REM) phase of sleep,

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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**

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both in humans and animals. REM sleep is associated with dreaming, and is most frequent in the period immediately before waking up spontaneously. It is believed that concomitant increased adrenaline secretion and sympathetic drive reduces cardiac blood flow and increases the likelihood of abnormal heart rhythms, which may explain why heart attacks are more frequent in the hours just after arising. Further knowledge and understanding of the mechanisms of action involved could point the way towards developing effective prophylactic interventions in individuals at high risk for sudden cardiac death, such as the nightly administration of beta blockers.

PACE 15:1387, 1992

Instant Meditation?

The stress reduction effects of meditation have been recognized for centuries. Experienced and accomplished meditators can achieve a state of deep relaxation and diminished psychophysiological arousal that represents the antithesis of the flight or fight response. The problem is that meditative techniques usually require years of disciplined daily practice for long periods of time to attain mastery or achieve optimal results. Few can afford the time to either learn or practice meditation on a regular basis. It has been known for some time that gazing into a *ganzfeld*, or monochromatic field, can produce a state of deep relaxation in some individuals which mimics that achieved with meditation, and the stress reduction effects of certain sounds, music, and rhythms are also being increasingly appreciated.

According to the *Wall Street Journal*, a new device, called Tranquillite builds upon this knowledge, to offer a shortcut to achieving inner peace and deep relaxation by providing "instant meditation within three minutes". The Instrument consists of glasses through which the subject views an unvarying blue field combined with headphones that transmit a sound that has been stripped of any stimulative frequencies. According to one psychiatry professor who has tried it, the effect is "to induce a profound relaxation state". He believes that it will be of value for tense and stressed out individuals and that there are no apparent adverse side effects. The device is expected to sell for several hundred dollars and scientific research studies are apparently underway to provide objective evidence that will support these claims.

Wall Street Journal, 1/18/93

*First keep the peace within yourself, then you can also
 bring peace to others.* Thomas A. Kempis

High Fat Diets Increase Stress Levels

A high fat diet is generally believed to contribute to increased risk for heart attacks, and possibly certain cancers. Stress has also been linked to a greater likelihood for coronary disease and malignant growth, possibly because of the effects of stress related hormones on the cardiovascular system, and stress related depression of immune system defenses against cancer. A recent research report now suggests that a high fat diet may interfere with the body's ability to cope with stress by interfering with the metabolism of hormones released during stress. Researchers had noted that rats who had been on a high fat diet were not able to recover from the effects of various stressors as rapidly as litter mates on a regular diet. The high fat diet group exhibited higher levels of adrenalin, nor-adrenalin and cortisol, and concentrations of these hormones remained elevated for longer periods of time compared to controls.

Such stress related hormones also increase the concentration of fats and sugar in the blood and may also depress immune system resistance to cancer. It is believed that the high fat diet may have interfered with the ability to metabolize or excrete these hormones as efficiently, thus exaggerating their effects. The relevance of these studies for humans is not clear. The stressful stimuli employed were severe and of relatively short duration, and different from the types of stressful situations that are usually encountered in clinical practice.

Palm Beach Post, 10/31/92

Are Cat Brains Shrinking Due to Stress?

A University of Tennessee Medical School biologist has reported that cat brains appear to be shrinking. According to his research studies, he found that "the modern house cat has significantly fewer brain cells than the wild creature from which it evolved." He compared the brains of modern house cats with those of a Spanish wild cat, that appears to be almost identical to the animal the ancient Egyptians frequently tamed as pets. The Spanish cats had almost 50% more brain neurons than could be found in current felines. Interestingly enough, most of the brain cells that had been lost in the course of evolution appeared to be those in areas of the brain responsible for providing sharper and increased visual acuity.

It is theorized that when house cats moved into human surroundings from the wild, they began to live in a situation over which they had little control, and were therefore under greater stress. In order to improve chances of survival of the species, it would have been necessary to produce higher litters. Since brain tissue has the highest nutritional requirements during pregnancy, this would be the organ most likely to be affected. Since protection from other predators would no longer represent as great a threat to life, superior visual acuity was not as essential as it would be in the wild, and the neurons responsible for this could be most readily dispensed with.

Palm Beach Post, 1/12/93

The trouble with a kitten is that eventually it becomes a cat.

Ogden Nash

Noisy Jobs And Hypertension

Job stress resulting from little control but lots of responsibility has been scientifically shown to be associated with increased rates of hypertension and heart attacks. A recent Italian study of almost 9,000 metallurgical factory workers now suggests that exposure to increased noise levels at work may also cause hypertension, especially in older individuals. About 4,000 were exposed to daily noise levels under 55 decibels, an equal number to levels between 55 to 80 decibels, with 733 having an average daily exposures noisier than 80 decibels.

Ordinary home levels average 40 and normal conversation is about 60 decibels. Protracted exposure to truck traffic, and garbage disposals (over 90 decibels) can result in hearing impairment, and being next to a power drill for only two hours at 100 decibels can produce serious damage. Sitting near the speakers at a rock concert (120 decibels) is worse, and an unmuffled

gunshot or rocket launch exposure to 140 or more decibels can cause instant and permanent deafness.

It has been generally assumed that there are no health hazards associated with exposure to levels of under 95 decibels for up to eight hours, but this is based on hearing loss. However, studies in monkeys exposed to moderate noise levels for nine months which caused no auditory impairment resulted in sustained hypertension, and this that humans may be at similar risk. No significant differences in blood pressure were found in the two large groups exposed to differing noise levels up to 80 decibels, but workers exposed to louder sounds showed a significant increase in systolic blood pressure, especially for those aged 51 to 60. These findings suggest the need to reevaluate current acceptable noise exposure levels in the workplace.

Cardiology World News, 10/92

Can Women Postpone Death?

Apparently they can, according to a recent analysis of California death certificates. Previous research had reported that death rates tended to be higher in the weeks following various holidays or anniversaries than in preceding ones, especially in religious females for whom those events were particularly meaningful. The California women were similarly more likely to die of natural causes in the week after their birthdays than any other week of the year. More significantly, there was a coinciding dip in death in the weeks before birthdays, suggesting that "some dying patients are able to prolong life briefly until they have reached a positive symbolic occasion".

In contrast, men were more likely to die in the weeks before a birthday than during the rest of the year. However, many may not agree with the explanation offered by one of the authors, that this was because "men are more likely than women to dread birthdays".

Gannett Suburban Newspapers, 9/22/92

PTSD Defense For Stolen Credit Card

A female letter carrier working for the Canadian Postal Service was fired after it was discovered she had been using a stolen credit card. She appealed this and during arbitration, she explained that she was suffering from stress as a result of childhood sexual assault and also had experienced sexual harassment on the job which had aggravated the problem. A psychologist testified that she was suffering from Post Traumatic Stress Disorder, and based on this information, the arbitrator ordered that she be rehired by the Canadian Postal Service.

Wall Street Journal, 12/22/92

How Healthy are CEOs?

That was the title of a recent newspaper article prompted by the revelation that top officials at Tenneco and TLC Beatrice International Holdings were suffering from brain cancers, one of which rapidly proved fatal. A Chief Executive's illness can significantly influence a corporation's future earnings and affect thousands of employees. Although the Security Exchange Commission laws require publicly traded companies to disclose "material developments", the definition of this is vague. There is no regulation pertaining to full or prompt disclosure of health problems of key officers, although this could significantly affect stock prices. MCI's stock fell almost six dollars a share when investors learned that its CEO had suffered a heart attack. However, corporations are not required by any federal or state laws to conduct routine examinations of key officers that might detect early disease. In addition, under the Americans With Disabilities Act, employees don't have to tell their companies anything about health problems, and not infrequently, such information is concealed.

In 1988, a malignancy of the colon was discovered during a routine surgical procedure in the CEO of AT&T. The company waited two weeks before telling the public, and did so only after persistent pressure from reporters who had heard rumors, and death occurred less than a month later. The same year, Contel waited four days to admit that their CEO had a heart attack. Last October, the besieged Chairman of General Motors was admitted to a Washington hospital when he suddenly became ill during a stressful business meeting. GM stated simply that his blood pressure had been found to be high, but he resigned within two weeks and promptly underwent coronary bypass surgery. The Chairman of Time-Warner did disclose that he had begun therapy for prostate cancer, and subsequently took a temporary leave for further therapy, and died within six months.

While CEOs are viewed as more likely to supply stress than suffer from it, they often work long and arduous hours and may have other unhealthy, stress-related lifestyle habits. Most are also in an age group where there is a greater likelihood of developing a serious illness or life threatening disease, and many corporations insist on hefty life insurance policies for key executives. The President of the United States has a physical examination every year, the results of which are promptly made public, and shareholder activists are increasingly demanding that corporations require CEOs and top officials to follow this practice.

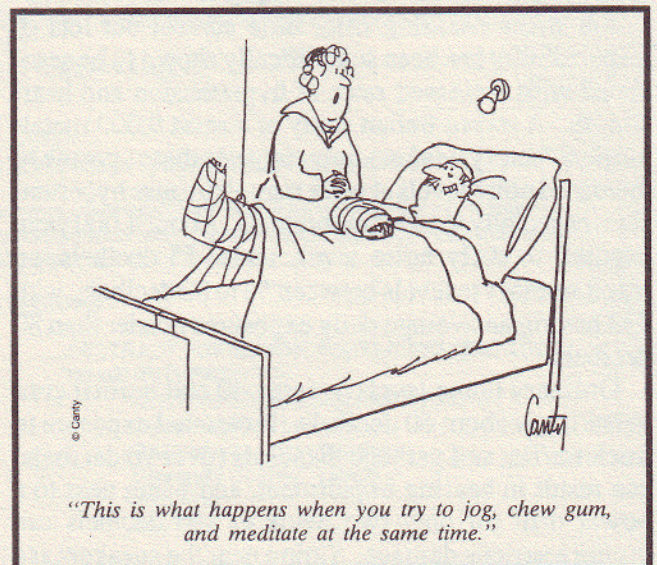
USA Today, 2/10/93

Hospital Noise Stress

Designers of 21st Century hospitals are emphasizing the need to create a stress free atmosphere by providing attractive window views, soothing colors and decor, and other ergonomic and environmental strategies designed to reduce patient anxiety and apprehension.. A major problem that needs to be corrected is hospital noise, which in some instances, prevents patients recovering from major surgery from getting a good night's sleep. The Environmental Protection Agency recommends that noise levels in hospitals be kept under 45 decibels during the day and 35 at night, but this is apparently rarely achieved. According to the author of a recent report in *The New England Journal of Medicine*, "loud conversations between medical staff, clanging bed rails, loudspeaker pages, personal beepers and a vast assortment of noisy medical machinery add up to a beeping, buzzing, banging, clanging and shouting that can have a detrimental effect on patient's health." Using a sound meter at a large general hospital measured "90 to 100 decibel noises all over the place." Hospital doors often closed with a 96 decibel thunk, and high tone telephone ringing measured over 100 decibels.

Sound is an arousal stimulus which causes constriction of blood vessels, and elevation of blood pressure, both of which can affect a patient's recovery and treatment. There may also be adverse effects on hospital personnel as well. Acceptable exposure to noise is usually based on levels insufficient to cause hearing loss, but recent studies have shown that protracted exposure to sound intensities well below this can still cause permanent hypertension and may have other adverse health effects.

Medical Tribune, 2/25/93



Mental Stress Raises Cholesterol and Keeps It High

Abundant research confirms that emotional stress can elevate blood cholesterol much more than dietary fat intake. Other factors, like standing at attention for long periods, can also cause cholesterol to shoot up, but such increases are generally relatively transient. Twenty six healthy men between the ages of 18 and 30 participated in two 80 minute laboratory sessions. Following 30 minutes of baseline rest lying down, there was either 20 minutes of standing, or 20 minutes of stressful mental tasks, followed by another 30 minute recovery period in the supine position. Blood pressure was recorded and measurements of cholesterol, adrenaline, and noradrenaline were made at the beginning and end of each session, and 3 and 18 minutes after the start of the mental stress segment.

Standing for more than 20 minutes of standing caused the greatest rise in cholesterol, but values quickly returned to normal in the recovery period. However, the increases seen as a result of mental stress, while not as pronounced, persisted throughout the study. Hemoglobin and hematocrit levels rose during both challenge sessions due to hemoconcentration, but similarly returned to normal during recovery from standing, but not after mental stress. This may be a significant observation, since hemoconcentration has also been listed as a risk factor for heart attacks.

Cardiology World News, 11-12/92

She began to fall in love with her bed.

George Burns

Exercise Reduces Cardiovascular Responses to Mental Stress

It is widely acknowledged that physical conditioning as a result of aerobic exercise markedly reduces cardiovascular responses to physical stress. Seasoned athletes can exercise for comparatively long periods of time without experiencing any significant rise in heart rate or blood pressure, although these readings shoot up in couch potatoes. It has generally been held that such aerobic conditioning does not confer similar benefits with respect to cardiovascular responses to emotional stress. This can be vividly illustrated by observing in marathoners who are unexpectedly required to speak before a large audience. Although their heart rates and blood pressures barely budge during treadmill testing, they rapidly soar as a result of emotional stress.

In a short term study, participants were divided into groups that performed vigorous exercise, low exercise, and no exercise. After a 20 minute recovery period, they were forced to perform mental arithmetic tasks for 4-5 minutes under stressful conditions, and cardiovascular function was monitored. Exercise produced a consistent increase in blood pressure and heart rate, and a decrease in peripheral resistance. Mental arithmetic stress also caused an elevation in blood pressure and heart rate, but this was significantly less in the high exercise group compared to the no exercise group, with moderate exercise falling in between. Interestingly enough, the subjective reactions to the mental stress testing were not different in any of the groups, suggesting that the protective benefits observed were mediated by hemodynamic, rather than emotional factors.

*Psychophysiology 28:689-700, 1991,
Annals of Behavioral Medicine, p. 359, 1992*

Exercise is bunk. If you are healthy you don't need it, and if you are sick, you shouldn't take it.

Henry Ford

Emotional Distress Without Injury Compensable

A 25 year old patient underwent diagnostic x-rays and subsequently, surgery for removal of her gallbladder. Despite the fact that she informed the hospital staff that she had not had a menstrual period in two months, was now experiencing breast tenderness, and stopped her birth control pills two months earlier, no pregnancy test was ever performed. While recovering from surgery, she was informed that she was pregnant with twins, both of whom were subsequently born healthy and normal. However, the patient claimed she had suffered severe emotional distress and anxiety because of fears that her children might eventually suffer from the radiation exposure she had received while pregnant. Although her emotional disability was apparently severe enough to warrant a diagnosis of Post Traumatic Stress Disorder, her suit against the hospital was dismissed on the grounds that there "could be no recovery from emotional distress absent and accompanying physical injury". However, this decision was reversed by an Appellate decision, which ruled that the law did allow for "recovery for emotional distress if the claimant was in the zone of physical danger and fear for her own safety", and this could be interpreted to apply to her situation. Recoveries based on this "zone of danger" theory have recently become increasingly common because of the wide latitude of circumstances to which it can be applied.

The American Medical News, 1/11/93

Coping with Earthquake Stress

Last June 28th, one of the largest earthquakes in California history shook the mountainous desert area around Big Bear Lake. Two of the quakes on that day measured 7.4 and 6.5 on the Richter Scale and it was predicted that even more destructive earthquakes were likely within the next two years. As one local physician noted "in 20 years, I have never seen anything like it...people are just done for, they are crying, they are sobbing, they're scared". One of the worst problems was fatigue as a result of lack of sleep and fear because of the continual shaking of the ground all night long. The disaster further aggravated the existing high unemployment rate since many local businesses had to shut down. Many individuals were homeless and suddenly reduced to poverty levels, and were bewildered since they didn't know what to do or where to turn for help. According to the CEO of the local hospital, "some of our staff are dealing with the same anxieties as the people they are treating...even I'm on medication. I'm not from earthquake country". One General Practitioner

said that patients were not only flooding his office, but frequently approached him on the street begging for help. "People want Valium, they want nerve medicine. They want Tylenol 3. Up at the hospital, they have had an overflow...I just try to give them what they ask for". While this may afford some temporary relief, such band aid assistance does not provide long term benefits for most individuals, and could conceivably lead to drug habituation and dependency problems down the line.

Early crisis intervention by trained health professionals is the most effective way to minimize the problems of Post Traumatic Stress Disorder that regularly follow such disasters. A group of psychiatrists with experience gained from counseling San Francisco residents following their massive earthquake offered their services and came to Bear Valley to conduct a mass therapy session to help victims learn how to cope. For many, however, especially affected children, intensive individual counseling and follow up may be required.

Medical Tribune, 8/6/92

Vth INTERNATIONAL CONFERENCE OF THE INTERNATIONAL SOCIETY FOR THE INVESTIGATION OF STRESS (ISIS)

CORRIB GREAT SOUTHERN HOTEL, GALWAY, IRELAND (EIRE)

MAY 30 – JUNE 1, 1993

SUNDAY, 30 MAY, 1993

5.00 – 8.30 P.M.

REGISTRATION & WELCOMING RECEPTION.

MONDAY, 31 MAY, 1993

9.00 A.M. – 12.30 P.M.

SYMPOSIUM I: "STRESS; ITS IMPACT ON HEALTH (IMMUNOLOGICAL EFFECTS AND CANCER)".

1.30 P.M. – 5.00 P.M.

SYMPOSIUM II: "MANAGING STRESS; A PARTICIPATORY WORKSHOP ON PROFESSIONAL STRESS MANAGEMENT".

5.00 P.M. – 7.00 P.M.

POSTER PRESENTATIONS (ABSTRACT FORM AVAILABLE).

TUESDAY, 1 JUNE, 1993

9.00 A.M. – 12.30 P.M.

SYMPOSIUM III: "STRESS AND THE ELDERLY".

1.30 P.M. – 5.00 P.M.

SYMPOSIUM IV: "STRESS IN PSYCHOSEXUAL DIFFICULTIES AND DYSFUNCTION".

INVITED FACULTY INCLUDES: Brian Leonard (Ireland); Graham Burrows (Australia); Paul Rosch MD (USA); Cary L. Cooper (United Kingdom); Ian Hindmarch (United Kingdom); David Wheatley (United Kingdom); Ciaran O'Boyle (Ireland); Robb Stanley (Australia); Ray Ancill (Canada); Jean-Pierre Kahn (France); and many others still to be confirmed.

POSTER PRESENTATIONS ARE INVITED FROM ATTENDING DELEGATES

FURTHER DETAILS AVAILABLE FROM:

ISIS Central Office
Department of Psychiatry
University of Melbourne, Austin Hospital, Heidelberg
AUSTRALIA, 3084
Fax: (61 3) 459 6244

**ABSTRACT FORMS FOR POSTER PRESENTATION
TO BE RETURNED TO:**

ISIS POSTER SESSION ABSTRACTS
Professor Brian Leonard
Department of Pharmacology
University College, Galway
IRELAND.
Fax: (353 91) 25 700

Strenuous Jobs and Ulcers

Increased job stress has been linked to higher rates of ulcers. One possible mechanism of action is increased secretion of adrenal cortical hormones, which are known to produce gastric erosions. In recent years, increasing evidence that ulcers are caused by helicobacter pylori infection, suggests that stress induced depression of immune system resistance to infection might also be a factor. Job stress in such instances is generally considered to be greatest in occupations where the individual perceives a great deal of responsibility but has little authority. Thus, it is commonly perceived that bosses give ulcers, rather than get them. A recent study now suggests that high levels of physical activity at work may also increase the likelihood of developing ulcers. In a study of 76 patients and 150 matched controls, it was found that although only 15% were employed in jobs associated with strenuous physical activity, this category accounted for 40% of all patients with duodenal ulcers. At the other end of the scale, while sedentary workers accounted for 25% of the controls, only 13% had ulcers. Workers with physically strenuous jobs had a 3.6 times greater risk for developing ulcers than sedentary workers, with those engaged in moderate physical activity falling in between. Examples of strenuous physical jobs included miners, laborers and mechanics, while civil servants, bus drivers and scientists comprised much of the sedentary group.

It was suggested that physical work might affect the flow of blood to the stomach, producing vascular damage similar to that seen following chronic aspirin administration. In addition, greater dietary demands associated with increased physical activity could play a role. However, various socioeconomic influences may be involved, since economic status may tend to be superior in the sedentary group and this could play a role. What might be of interest would be to determine whether or not physically active executives have a higher incidence of ulcers than those who tend to lead more sedentary lives.

Gut 32:983-86, 1991

Internal Medicine and Cardiology News, 8/15/92

Payment for Suicide Due to Job Stress is Tax Exempt

The general manager of a large pharmaceutical company unexpectedly committed suicide. His widow was convinced that his death had been caused by severe job stress, for which the company should be held liable. Their cost cutting program had forced him to fire many employees and friends who had worked with him for

years, and he had also been blamed for a defective batch of vaccine that had caused bad publicity. Her lawyer wrote to the company outlining these complaints with an "implicit threat of litigation". The company elected to settle, and agreed to pay the widow \$50,000 with the proviso that she would agree not to publicize the matter and also release them from any further liability. She paid no income tax on this and the IRS subsequently brought an action against her, claiming that the payment represented taxable income. However, the tax court disagreed, ruling that the overall situation, and especially the response following the threat to sue, placed this in the category of a tax free payment for "damages received on account of personal injuries or sickness".

Wall Street Journal, 12/23/92

The question is whether suicide is the way out or the way in.

Emerson

Is Low HDL Responsible for Heart Attacks in Type A's

According to a recent report, neither Type A personality nor suppression of anger appear to be significant independent risk factors for heart attacks in and of themselves. It was suggested that the mechanism responsible for increased heart attacks in Type A's and hostile individuals, may be related to their lower levels of HDL, or "good cholesterol". 350 heart attack patients and an equal number of age- and sex matched controls were evaluated for Type A and suppressed anger. The Type A's were 1.5 times more likely to have suffered a heart attack, but it was noted that their HDL levels were significantly lower, and this could have accounted for this increased incidence. There is some experimental evidence to suggest association between high levels of stress related catecholamines and suppression of HDL, the sub fraction of cholesterol that protects against heart attacks. There was no significant difference in total cholesterol in the two groups. It was suggested that Type A personality and the tendency to low HDL might have a common neuroendocrine basis. In addition, reducing Type A behavior might reduce risk for myocardial infarction only to the extent that it causes HDL levels to rise. However, considerably more research is required to prove that Type A's in the general population have lower HDL concentrations than controls, and that the lowest HDL Type A's have the greatest risk for heart attacks.

Internal Medicine and Cardiology News, 1/1/93

Book Reviews • Meetings and Items of Interest

Book Review

Stress and Women Physicians, Bowman, M.A. and Allen, D.I., Springer-Verlag, New York, 1990. No. of pages: 216. Price \$19.50.

Historically, women have served as nurses, midwives, abortionists and pharmacists, and we tend to view their entry into formal medical specialties as a relatively recent phenomenon. However, there were many female students and even teachers in ancient Egyptian medical schools, and at least one husband-wife physician team practiced in Heliopolis in 1500 B.C. The first formal medical school was founded in Salerno in the ninth century, and although there were female students and teachers there over the next several hundred years, the M.D. degree could only be obtained by men. The lengthy history of discrimination goes back at least six centuries, when Henry V was petitioned to prevent women from practicing medicine. Around 1850 when Elizabeth Blackwell became the first female medical graduate from Geneva Medical School, that institution was promptly censured by the New York State Medical Society. At the same time, Harriet Hunt had been admitted to Harvard Medical School, but along with several blacks was denied her seat due to a violent student protest, and it was not until 1946 that a female was finally able to gain admission again.

This is the second edition of a valuable book that focuses on the subsequent special problems encountered by female physicians. At present, more than one out of three graduating physicians are women, traditionally gravitating to specialties such as anesthesia, pediatrics, psychiatry and OB/GYN, where many feel they indeed they may provide superior services. However, women still tend to encounter resistance, especially in certain surgical subspecialties that are considered by the old guard as male bastions. In hospitals and teaching institutions, their chances for advancement may be hindered, and as in other occupations, they are often subjected to subtle or blatant sexual harassment, particularly during medical school and post graduate training. Female physicians who are mothers face particular problems with respect to child rearing. In one Canadian study of psychiatrist mothers (who presumably should be in the best position to cope with such problems), 84 per cent reported numerous serious concerns about this, and almost all emphasized the

need for backup coverage. About half of female physicians are married to doctors, and although their divorce rate is lower than other employed professionals, it is twice that of male doctors. Depression is reported to be more common in female doctors, especially during their training years, and they are more likely to seek psychiatric help than male counterparts. Although more apt to commit suicide than other female professionals, the incidence is comparable to that seen in male physicians.

These and other issues such as substance abuse, dual physician families and other relevant topics are thoroughly explored, with insightful commentaries by female physicians inserted at the conclusion of each of the fourteen chapters. Of particular value is the in-depth coverage of the crucial role of social support and alternatives to full-time practice as well as a new chapter dealing with the subject of women as healers. This compact volume should be required reading for all female physicians, as well as those who consider themselves the stronger and superior sex.

Meetings and Items of Interest

April 27-May 28 New Science: New Physics and the Systems View of Life: the Holistic and Ecological Nature of the Emerging Paradigm, Devon, United Kingdom, Fritjof Capra, Schumacher College, The Old Postern, Dartington, Totnes, Devon TQ9 6EA, UNITED KINGDOM

April 30-May 2 CME, Inc. and The Psychiatric Times - Personality Disorders - An Advanced Update, Atlanta, GA, Contact Janell Parque (800) 447-4474

May 6-9 The American Academy of Medical Acupuncture Sponsored by the University of Maryland School of Medicine, Marriott Inner Harbor, Baltimore, Maryland (213) 937-5514

May 14-19 University of California, San Diego School of Medicine, Office of CME - The Power of the Art: Introduction to Medical Hypnosis, Colonial Inn, Del Mar, CA (619) 259-6790

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