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ARE CARDIAC SURGEONS GOING OVERBOARD?

A variety of studies suggest that many invasive cardiovascular procedures may not be warranted, and are motivated by commercial, rather than reasonable medical concerns. One report evaluated over 1,000 consecutive acute heart attack patients admitted during a two-month period to either 16 hospitals with on-site angiography, or 8 centers without this facility. Prompt therapy to dissolve clots was administered with equal frequency at both types of hospitals. However, patients who were seen initially in those doing angiography were 3 1/2 times more likely to undergo this procedure, than in others without it, despite similar signs and symptoms. One out of four patients had angiography when it was on-site, compared to less than one out of 28 for those admitted to the other hospitals. The availability of angiography also resulted in 4 times as much angioplasty and bypass surgery (12% compared to 3%). However, hospitalization and one year mortality rates were essentially the same for both groups.

In another review of 5,867 heart attack patients, those who were admitted to hospitals with on-site angiography were more than 3 times likely to undergo surgery, than controls admitted to hospitals without catheterization laboratories. There is particular concern that surgical interventions will be overused in younger acute MI patients. According to one authority, "If it's available on-site, cardiologists will perform angiography systematically in younger patients after thrombolytic therapy, even though the American College of Cardiology and the American Heart Association recommends that cardiac catheterization be reserved for patients with significant ischemia, or left ventricular impairment."

His opinion appears to be supported by another study of 171 patients with coronary artery disease who had been urged to undergo angiography, but instead, were referred for a second opinion. They were followed carefully for approximately 4 years, evaluating such things as subsequent cardiac events, the need for invasive interventions, quality of life, and degree of symptomatology. Eighty percent were subsequently judged not to require angiography, which was recommended in just 6 patients. In 16%, a decision was deferred pending further investigations. At the end of the study period, there were 7 cardiac deaths, 19 patients had experienced a second

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ALSO INCLUDED IN THIS ISSUE

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Editor-in-Chief

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myocardial infarction, and 27 were judged to have unstable angina. Less than one out of six, or only 26 patients, ultimately required either coronary bypass or angioplasty. The researchers concluded that a large percentage of medically stable patients with coronary disease who are told to undergo coronary angiography, can safely defer this without significant risk. They suggest that possibly 50% of the coronary angiograms currently being performed in the United States are not necessary, or could at least be postponed pending further observation.

Over the three decades between 1950 and 1980, U.S. coronary death rates declined by almost 50%, primarily because of improved drug therapy and medical care. Since then, despite further advances in these areas, invasive procedures have skyrocketed. More than 10 times as many angioplasties were done in 1993, as in 1983. Of the one million patients who had angiograms during the past ten years, four out of five went on to have surgical procedures. However, there have been no good control studies to demonstrate that surgery would have been significantly superior to good medical therapy in this population. Approximately 750,000 bypass operations and angioplasties are now done annually, at a cost of $25 billion. Roughly 16,000 patients die each year as a result of these procedures. At the recent annual meeting of the American Heart Association, stunning success in reducing coronary events and mortality was reported with a new cholesterol lowering drug. As one prominent cardiologist commented, "Angioplasty and coronary artery bypass surgery are much more expensive than aggressive lipid-lowering. I would put every patient on lipid-lowering medications, rather than begin with those interventions."

What's the reason for all this? As one prominent cardiologist commented, "We've overtrained cardiologists and cardiovascular surgeons; there are significant economic incentives for both hospitals and physicians; there is fear of litigation; and there is the perception on the part of the public, the press, and even our colleagues, that angioplasty and bypass are somehow always superior to pharmacotherapy. It just ain't so."

Internal Medicine World Report-May 1-14, 1994
JAMA-12/7/94
USA Today-11/15/94
JAMA-11/11/92, 1/15/94
Associated Press-11/15/94

Job Satisfaction Hits A New Low

The escalating problem of job stress has taken a variety of tolls, including increased cardiovascular disease, diminished productivity, and a declining quality of life in the workplace. Support for the latter comes from a new survey of some 2,000 workers who reported that job satisfaction has steadily declined over the past two decades. According to "The Dream In Danger" survey, conducted by Roper Starch Worldwide, Inc., the major gripes were dissatisfaction with working hours and opportunity for advancement, inadequate benefits, a lack of camaraderie on the job, and the feeling that work activities contributed little to improving social conditions. In 1973, 40% of workers reported that they were "extremely satisfied" with their jobs. By 1994, only 24% fit this description. This may be

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due in part to increased layoffs, tight job markets, and stagnant wages, which one psychologist feels has created "a shell shocked generation".

Companies are becoming more sensitive to the problem and are trying to do something about it. Bell South Telecommunications, which recently had to cut its workforce by 5,000 and will terminate another 5,000 over the next two years, has made *Healing The Wounds* mandatory reading for all of its managers. It is a self-help book on post-layoff trauma that offers useful tips on how to cope with various associated stresses. A Colorado corporation now monitors employee morale with a periodic "Happiness Index" questionnaire. It is designed to evaluate the quality of life in the workplace, so that early warning signs can be identified that trouble may be brewing. Some organizations have focused on providing assistance for discharged workers to obtain other jobs compatible with their skills, as well as legal aid, help with moving, or advice on how to preserve medical benefits.

Wall Street Journal-November 29, 1994

Can Daily Delights Conquer Colds?

Major life change events, such as the death of a spouse are clearly associated with an increased incidence of illness over the following six to 18 months. Other severe, but more chronic stresses, such as loneliness and social isolation, have similar adverse health consequences. While many mechanisms may be involved, an important influence may be the decline in immune system resistance that has been demonstrated in both of these situations. An increase in seemingly minor daily hassles has similarly been shown to predispose to illness, and studies now suggest that impaired immune system resistance may also be involved.

Nearly 100 married men kept detailed records of pleasant and unpleasant experiences and moods everyday over a three month period, and provided daily samples of saliva. These were analyzed for secretory IgA antibody, an immunoglobulin which is the first defense mechanism against common cold viruses. Undesirable events, particularly job stress, and negative moods (feeling hostile, nervous, irritable, guilty) correlated strongly with concomitant lower levels of IgA, indicating decreased resistance to infection. Previous studies have demonstrated that individuals who reported high daily stress levels tended to have more colds and upper respiratory infections. In one report, when volunteers were inoculated with several different rhinoviruses and subjected to various degrees of stress, the incidence of clinical colds correlated precisely with the severity of stress.

One of the surprising findings in this report was that positive moods, such as enthusiasm, pleasurable excitement, and a strong sense of pride produced a marked increase in IgA levels. This was an even more powerful and sustained response than that noted for negative feelings and events. A pleasant family celebration, or getting together with good friends boosted immune resistance significantly for the next 48 hrs.

Health Psychology-Sept. 1994

Perfectionism And Poor Health

Many people think that being perfectionistic is a trait that should be admired and cultivated. Not so, according to a recent report, that suggests it can significantly contribute to poor health and create conflict in corporations. Scientists from Human Synergistics have been collecting all sorts of data from workers in various occupations for decades. Their particular objective has been to demonstrate how such things as personality, susceptibility to stress, and coping characteristics, can influence physical and mental health, as well as productivity. The highly respected researchers recently reported their latest results from a ten year study of over 10,000 managers and professionals.

All participants initially completed a scientifically validated questionnaire designed to measure among other things, an individual's predominant thinking style or behavioral pattern. About 18%

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who characterized themselves as being particularly "practical, competent, business-like, persistent, and enduring", were classified as being perfectionists. In general, they "tried to be the best at things", were "impatient with their own errors", and constantly strived to prove their worth in an incessant struggle to achieve success. Another common characteristic was to downplay or de-emphasize their feelings. The study found that perfectionists were 75% more likely to have numerous complaints ranging from headaches and depression, to gastrointestinal and cardiovascular problems. As the senior author noted, "perfectionism is a way of thinking and behaving, that on the surface seems a search for excellence... but actually brings great unhappiness, massive imperfection and poor health.

Detroit News-11/21/94

An Apple A Day Does Keep The Doctor Away

Modern science seems to be verifying this anonymous aphorism, which has been popular for centuries in the U.S. and Europe - at least with respect to cardiologists and oncologists. Apples may protect against heart disease because of their high fiber content, which among other things, helps to lower cholesterol. However, their salubrious rewards may extend beyond this for other reasons. Researchers now believe that the cardioprotective effects of apples may be due to their high content of flavonoids. These antioxidants are found in various vegetables and fruits, as well as red wine and tea.

One recent study measured the amount of flavonoids in the diets of over 800 men aged 65 to 84 for a five year period. Even when other risk factors such as smoking and hypertension were taken into consideration, those with the highest dietary intake of flavonoid-rich foods, were least likely to experience or die from a heart attack. There are various types of flavonoids, with strange names like quercetin, kempferol, myricetin, apigenin, and luteloin. However, quercetin seems to be particularly protective, and its highest concentrations are found in onions, kale, and apples. Each golden apple contains an average of 25mg of quercetin, but a variety called Jonagold has 72mg, or almost 3 times as much.

The study reported that men with an average daily intake of 26mg of flavonoids were least likely to suffer from heart disease. Other research has shown that flavonoids also reduce risk for developing certain cancers. So, an apple a day may keep the oncologist away as well. Fortunately, cooking does not negate either of these protective effects. Applesauce is comparable to the real thing, and you can also enjoy your low fat apple pie with a scoop of low fat frozen yogurt, to pursue longevity "a la mode". Any way you like it, an apple a day, and especially a Jonagold, could very well help keep the cardiology and cancer specialist at bay.

Longevity-November 1994
Lancet-October 23, 1993

"The best of all physicians is apple pie and cheese."
Eugene Field

Sex, Heart Attacks And Smoking

Smoking seems to increase the risk for heart attacks, and quitting can reverse this. The explanation for these findings is not clear. Some have suggested that individuals who smoke are more apt to have Type A traits such as increased hostility and anger, or share some other risk factor that predisposes to heart attacks. However, the answer may lie in a recent study of 121 smokers who were followed for two years. Researchers found that quitting cigarettes lowered blood fat levels, sympathetic nervous system activity, and platelet stickiness, all of which can contribute to heart attacks.

The participants were healthy smokers who had consumed at least a pack a day over the past five years. They were studied while they were still smoking, after they stopped cigarettes and chewed nicotine gum instead for 12 weeks, and when they neither smoked nor chewed nicotine for a 12 week period. Only 52 were actually able to abstain completely from nicotine for the entire 12 week

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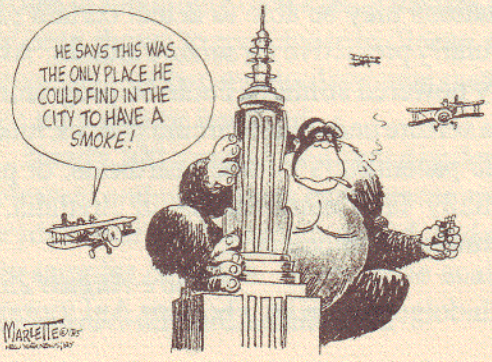
period. In those who were able to stop smoking, there was a definite decrease in LDL (bad cholesterol), and triglyceride levels. There was also a suppression of sympathetic nervous system activity and the excretion of stress related hormones like adrenaline, along with a comparable reduction in platelet clumping.

In addition to lowering risk for heart attack, stopping cigarettes may also improve male sex life. An examination of the records of almost 2,500 Vietnam veterans found that smokers were much more likely to report being impotent than non-smokers, or those who had quit smoking. As the senior author of the report noted, "For years the tobacco industry has used sexual imagery to sell their products. The subtle message is that smoking enhances sexual performance, but the reality is it may inhibit sexual function." Researchers hypothesize that smoking causes constriction of blood vessels in the penis, much as it does in the heart and elsewhere in the body. Interference with erectile function can become apparent around age 40, and increases steadily after that. In general, smokers tend to be about 8 years older from a physiologic viewpoint, than non smokers the same chronological age. The good news is that once smoking has stopped, its damaging effects start to disappear within a few months.

USA Today-December 2, 1994
American Journal of Medicine-September 1994
Consultant-December 1994

A custome lothsome to the eye, hateful to the Nose, harmefull to the braine, dangerous to the Lungs, and the blacke, stinking fume thereof, neerest resembling the horrible Stigian smoke of the pit that is bottomlesse.

King James I of England



Stress, Smoking And Spermatozoa

Emotional stress has long been linked with infertility in females, and it seems that males may be similarly affected. Stress rating scales place death of a spouse or loved one at the top of the list, followed by loss of other important emotional relationships. At the annual meeting of the American Fertility Society, researchers reported that in a study of over 150 couples, the death of a family member adversely affected sperm counts. Stress associated with divorce or marital separation also had some negative effects, but job stress had no influence. Although most failures to conceive are usually ascribed to female disorders, the fault can lie with the husband in up to 40% of the cases, according to some surveys. How stress causes male infertility is not clear, although a decrease in pituitary hormones that stimulate the testes has been reported. It is also well known that stress can weaken the immune system, making the body more susceptible to a variety of infections and illnesses, but this does not seem to be relevant here.

In addition to having direct effects on testicular function, stress may predispose to increased smoking, drinking, and other lifestyle habits which could affect the quantity and quality of spermatozoa. However, in this study, the link between severe emotional stress and infertility persisted even when such factors were taken into consideration. Semen samples were collected from 157 healthy men when they were first seen, and 17 months later. Each participant filled out a detailed questionnaire which gathered data about alcohol and tobacco consumption, magnitude of occupational pressures, and psychosocial stress due to loss of important relationships resulting from death, divorce, and separation.

Both positive and negative aspects of job stress were evaluated, by rating self perceived degree of control, demand, responsibility, and social support in the workplace. Those who reported the most demanding jobs, and thought they had the least control, were rated as having the greatest job stress,

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but this had little effect on fertility. Working an excessive number of hours weekly did correlate with decreased sperm counts, but was not statistically significant. In addition, such changes were considerably less in those who reported good social support, despite working long hours. However, the loss of a loved one because of death, divorce, or separation, was associated with a 12% reduction in sperm count, and a 10% reduction in the percentage of actively motile spermatozoa.

While smoking did not appear to be an important factor, another report at the same meeting did demonstrate a link between male infertility and nicotine. Spermatozoa were only half as likely to fertilize an ovum in men smoking a pack or more of cigarettes daily. As the senior author noted, "nicotine actually damages the sperm, altering its morphology, as well as its motility". Researchers subjected spermatozoa from 13 fertile, non smoking men to concentrations of nicotine estimated to approach those which might be seen in heavy, medium, and light smokers. As nicotine concentrations increased, there was a corresponding decline in motility, and a rise in abnormal forms less able to fertilize eggs.

In another animal study, spermatozoa exposed to nicotine were also 30%-40% less likely to be able to penetrate and fertilize the ova, and this inability similarly increased progressively with the degree of nicotine exposure. In addition to effects on sperm counts and function, smoking may also cause vasoconstriction that restricts the penile tumescence necessary to achieve an erection. It has also long been observed that alcohol "stimulates the desire, but taketh away the performance". Men who are planning a family should abstain from, or sharply curtail, smoking and drinking, especially when fertility problems cannot be traced to their spouse.

Medical Tribune-December 1, 1994

Tobacco is a dirty weed. I like it.
It satisfies no normal need. I like it.
It makes you thin, it makes you lean,
It takes the hair right off your bean.
It's the worst darn stuff I've ever seen.
I like it.

Graham Hemminger

Controlling Epilepsy With Chaos Theory Pacemaker

Chaos theory is a new buzzword in scientific circles. It refers to a discipline that attempts to find order in apparently unorganized and unpredictable activities and behaviors. These range from such varied phenomena as the varying turbulence in a stream, and size and frequency of waves beating on the shore, to stock market fluctuations and predicting sudden death in cardiac patients. As previously reported in the Newsletter, chaos theory has even been used to diagnose stress levels and emotional well being, by measuring changing capillary oscillations of finger tip blood flow. Although such seemingly random and unpredictable activities appear to occur in a haphazard fashion, chaos science can demonstrate that when carefully plotted on a graph, they tend to become grouped in certain locations called "periodic points".

Some patients with epilepsy are refractory to medication, but may improve with surgical removal of a specific and persistent focus of irritable brain tissue that is readily accessible. However, many epileptic attacks appear to originate in a deep region of the brain known as the hippocampus. In animal studies, it has been shown that when hippocampal nerve cells are bathed in a potassium solution, they start to fire in random spike patterns, similar to those observed in epileptic patients just prior to seizures. By applying minute electrical jolts to the cells at precise times prior to the periodic points predicted by chaos theory, researchers found that they could regulate and abort this abnormal electrical activity. Ambulatory brain wave monitoring is increasingly being performed, and chaos theory calculations may be able to detect certain patterns particularly predictive for seizure attacks. A feeble, battery powered stimulus could be programmed to abort a seizure under such circumstances, much like cardiac pacemakers initiate heartbeats, or prevent potentially fatal disturbances in rhythms, when abnormalities are detected.

Nature-August 25, 1994
Brain/Mind Bulletin-November 1994

Avoiding The Stresses Of Office Politics

Stress is apt to increase whenever individuals come in constant contact for prolonged periods of time. This is particularly true when they compete for the same thing, have different values and standards, or personalities that clash. Such conflicts are particularly apt to escalate and explode in offices, which may help to explain why job tensions are often fueled and accelerated by office politics, which comes in all sorts of shapes and sizes. It can be blatantly overt, subtle and covert, and occurs at every level from mail room clerks and secretaries, to CEO's. A recent poll of executives from 1,000 companies around the nation, revealed they waste 20% of their time, or one full day a week, just in dealing with office politics. According to the head of Accountemps who sponsored the survey, "Politics are an inherent part of the corporate culture. In a competitive environment, there will always be some people who try to advance their careers by using subversive tactics to manipulate or influence others. Company 'yes men', for example, who are more concerned with self-promotion than fulfilling company goals, can create a great deal of conflict."

Practicing office politics is apt to be more pervasive and intense as one ascends the corporate ladder for several reasons. There is more at stake financially, and greater competition for the same or better position. Qualities such as efficiency, productivity, and value to the corporation, cannot be measured as objectively as they can for sales personnel or data entry clerks. Evaluations are more apt to be based on subjective criteria such as personality, ability to make a good impression on important clients, and ultimately, how well one is liked by upper echelon decision makers.

This can be tricky, since in some instances, a rapidly rising star may be viewed as a threat by an immediate superior, and it is essential to be able to adapt to changing situations. For some executives, skill in office politics has become an ingrained behavioral pattern that has been honed and refined over years of practice. In many instances, this proficiency may have been largely responsible for reaching and retaining present positions.

Some of these techniques may include buttering up the boss, as well as his or her relatives and close friends, or having others do this on your behalf. Denigrating possible competitors by innuendo, isolating them by keeping them "out of the loop" whenever possible, or deliberate back stabbing as a last resort, are other approaches. With downsizing, hostile acquisitions, emphasis on cost containment, and making corporations "lean and mean machines", such practices are likely to increase. However, since the cast of characters changes more frequently, it may be necessary to develop different skills and strategies in the struggle to please new potential superiors who could control your destiny. On the other hand, you can't fool all of the people all of the time. Many superiors can quickly spot subordinates who exhibit the same traits that were responsible for their own success.

There are no easy solutions for office politics, but in the end, the truth has a habit of prevailing. The best advice is to do the best you can, and to be sensitive to the needs and concerns of clients and subordinates, as well as those who are over you. Avoid taking sides in disputes in which you are not directly involved, and where all the facts may not be available. Devote your time and talents to your own duties, and be considerate and courteous to everyone you come in contact with.

Job stress increases when workers have little control, but considerable responsibility for their assignments, and often, little can be done to remedy this. However, one of the most powerful stress buffers is having good social support from fellow employees and customers. They are often in the best position to detect when someone is using office politics to undermine you, or your job, and to alert you to this.

Westchester Business Journal-2/15/95

Politics is the art of looking for trouble, finding it everywhere, diagnosing it incorrectly, and applying the wrong remedies.

Groucho Marx

Book Reviews • Meetings and Items of Interest

Book Review

Does Stress Cause Psychiatric Illness? Mazure, C.M., ed., American Psychiatric Press, Washington, D.C., 1995, 281 pgs., $36.50

This valuable volume provides a fresh perspective on an old question, namely - what is the relationship between stress and psychiatric illness? It vindicates Adolph Meyer's concept of "psychobiology", which viewed emotional and other illness as failures to adapt to stressors, and replaced the taxonomic focus fostered by Emil Kraepelin. The eight chapters illustrate the varied ways this subject can be addressed, ranging from life event models, and psychosocial risk factor paradigms, to disturbances in neuropeptide mechanisms, particularly dopamine. The introductory chapter reviews the historical aspects of this, going back to Greco-Roman notions of the etiology of illness based on disturbances in the four humors. This posited a somatic basis for mental illness, rather than some supernatural influence, and progressed further during the Middle Ages, the Renaissance and the subsequent "Age of Reason." However, interest in the role of stress and life change events as a cause of mental illness began in earnest in the 19th century with the investigations of Pinel, and has steadily flourished since then.

Subsequent chapters are devoted to the role of life events and other psychosocial risk factors for schizophrenia and depression, the role of stress in unipolar and bipolar disorders, the relationship of stress to panic disorder, and etiologic factors in the development of post traumatic stress disorder. All of these are approached from both basic science and clinical aspects. Particularly illustrative examples of this are the chapters dealing with stress, dopamine, and schizophrenia, and with the relationships between stress and panic disorder.

The concluding chapter deals with preventive interventions in the workplace to reduce the psychiatric consequences of work and family stress. It is particularly valuable since it not only outlines the dimensions and importance of this problem, but details some 15 specific intervention sessions that can be utilized to deal with its prevention and management. References are complete and up-to-date, and the illustrations are of high quality.

Meetings and Items of Interest

July 17-21 Sixteenth Cape Cod Institute, Psychotherapy and Spirituality 6, Speakers: Agosin Group, call Dr. Gilbert Levin for more info at (718) 430-2307

Aug. 8-12 The 3rd World Congress of Medical Acupuncture and Natural Medicine, "Integrated Complementary Medicine for All in the 21st Century", Edmonton Convention Centre, Edmonton, Alberta, Canada, call (800) 815-1116 or (403) 424-2231

Aug. 12-16 Training in Mind Body Medicine & Ayurveda, Deepak Chopra, M.D., and David Simon, M.D., Boston, MA, call (800) 757-8897

Aug. 21-25 Sixteenth Cape Cod Institute, Sound Mind, Sound Body, Speaker: K. Pelletier, call Dr. Gilbert Levin for more info at (718) 430-2307

Sept. 10-15 International College of Psychosomatic Medicine, 13th World Congress, Holiday Inn Crowne Plaza Hotel, Jerusalem, Israel, call (972 2) 617402

Sept. 13-16 Work, Stress, and Health '95: Creating Healthier Workplaces, The Third Interdisciplinary Conference on Occupational Stress & Health, Hyatt Regency Hotel, Washington, D.C., call Lynn A. Letourneau at (202) 336-6124

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