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Cover

More than drug addiction, alcoholism or chemical abuse, the winter issue of the *Medical Bulletin* is about special people — shining stars who face a crisis over self-esteem and compulsive behavior. Illustrations of Mary Albury (Biomedical Graphic Communications) lend a sensitivity and warmth to these pages.

Contents:

Letter to the Editor

Dear Editor:

Recently I spent 10 weeks in Minnesota as an exchange medical student at the Variety Club Heart Hospital. I would sincerely like to thank the Foundation for covering accommodation costs and for providing hospital meal-tickets. Without such funding the cost of a trans-Atlantic exchange scheme would be greater than that with which I could cope.

While at the University of Minnesota I studied cardiology and participated in the management of many patients, in so doing seeing much of the day-to-day utilization of technologies of which I had been aware but never had the opportunity to observe in practice.

I made many friends among other medical students, doctors and nurses. I also enjoyed certain other activities: attending the Guthrie Theatre, a Mozart Sommerfest Concert by the Minnesota Symphony Orchestra and a St. Paul Chamber Orchestra.

I had a wonderful stay, academic, social and cultural. I would therefore like to thank you once again for all your help. I am looking forward to this year's American exchange student arriving here and I know he will benefit equally from this exchange scheme. I hope that this program will continue in future years.

Alan Grosset

Study in Stress

Altering Consciousness

By David Zarkin

> When you wish upon a star
> dreams will take you very far,
> but when you wish upon a dream,
> life ain't always what it seems.
> What'd you see on night of clear
> in the sky so very dear . . .
> You're shining star, no matter who
> you are . . . Shining bright to see
> what you could truly be. —

"Shining Star" by Maurice White, Charles Stepney, Verdine White. Copyright 1975, Saggiflame Music (ASCAP) Earth, Wind & Fire

Whether it be a hazy dream or a bold relief nightmare is of little consequence to the chemically dependent teenager when he is high. Life on drugs, alcohol or both provides an altered state of consciousness while concerns about self, family, friends, school, career plans and the rest of society are pushed aside.

Why do teenagers do drugs and alcohol? Boredom and "everybody else does it" are common reasons Dr. Clifford L. Corman, Golden Valley child, adolescent and family psychiatrist, hears from his patients.

Corman characterizes teens as externally directed intellectuals who fail to reflect on themselves or monitor their feelings. When loving, caring and other positive reinforcements are not found in the family, self-esteem slips from the adolescent's grasp. Concurrently, the teenager has a compulsive need to identify with and conform to a group. Attempts to identify with athletes (jocks) or other socially acceptable groups may be frustrated or too difficult in the school setting, but the junkie (drug oriented) society is open and sociable. It is typically adolescent with conformity apparent in dress and attitudes on family and authority figures. Teens who are chemically dependent and are part of the junkie society function on character disorders, Corman explains, being fixed at an immature level of emotional development or regressing to this anal level through drugs. Control is an obsession with the user. Compromise is out of the question. "It's me or them against the world" if you are part of the junkie society.

Losing his sense of self, the teenage drug user identifies as a junkie or thief, sacrificing his needs for the group's needs and making common cause with drug freaks rather than more acceptable models such as jocks. Drugs and alcohol become the unifying social event, but trust among peers is tenuous in the junkie society. Freaks tend to be unreliable friends. When he is stoned on marijuana, he feels good about his friends, puts off thinking about career plans and does not relate to his family, Corman adds.

Besides sharing anti-social attitudes and getting high together, junkie society behavior expectations are meager at best. In the junkie society, it is difficult to find essential reinforcement for normal adolescent development, such as trusting, loving relationships, respect for the law, acceptable forms of sociability and preparation for careers through education. "That's why treatment works. It provides the needs met in the junkie society plus other needs," Corman adds.

The chemically dependent adolescent under stress tends to lapse into destructive behavior based on propensity and delusions. It is important that constructive thinking is reinforced in a program such as Alcoholics Anonymous (AA), he said. The AA treatment teaches the chemically dependent youth to forgive himself and to get his needs met in a healthy way without going back to drugs. If they do not get their needs met, they will be "dry" drunks with the same anti-social behavior as if they were high on chemicals. The treatment works with sufficient family support. More than that, you need to deal with the whole society for these kids, Corman said.

College Students

For the college student, grades, tests, relationships, family problems and general socialization produce stress that can lead to chemical abuse. Julie Hynes, chemical use and abuse counselor in student counseling and the Student Mental Heath Center, sees about 20 students per week. Usually they are referred by their friends, instructors or other therapists. About 70 percent of these clients abuse alcohol and about 25 percent abuse marijuana, she estimates.

Most abusing among college students can be turned around by working on factors contributing to abuse and by getting the client to use stimulants in moderation. She asks a client: "What are the positive returns you get from what you are using?" The client may reply: "I use it to relax." "It makes me forget the week." "It helps me to socialize." In her reply, Hynes recognizes that the need is valid, but she helps the client find alternatives to chemicals to meet the need.

Generally, clients she sees need to learn to build and maintain long term relationships and need to learn to trust themselves.

Perfection and guilt builds circles by setting unrealistic quality standards. She tells clients they did the best job with information they had at the time. Chemical abusers generally are strong in denying their feelings, strong in pleasing other people, strong in trying to maintain control of a situation, cling to an unrealistic image of having to be perfect and center their thinking around the word "always."

Study in Stress

Alcohol/Marijuana Quiz

Most of the 18 million marijuana smokers and 150 million drinkers in this country probably know their bongs and corkscrews pretty well. But they may not know as much about what these two commonly used drugs are doing to their bodies.

James M. Schaefer, director of Alcohol and Other Drug Abuse Programming at the University of Minnesota, has provided information for a comparison of the two drugs in the following quiz. To test your knowledge of the effects of marijuana and alcohol, decide if you think these statements are true or false:

1. Alcohol and marijuana are essentially the same in their mood-altering qualities.

2. Alcohol is more addictive than marijuana.

3. Marijuana remains in the body longer than alcohol does.

4. Overuse of marijuana leads to worse hangovers than does overuse of alcohol.

5. Women get "high" more easily than men on either drug.

6. Drivers are more dangerous after drinking alcohol than after smoking marijuana.

7. People who overuse marijuana are a greater general danger than are excessive drinkers.

8. Alcohol causes greater sleep disturbances than marijuana.

9. Marijuana users have worse memory problems than drinkers do.

10. Marijuana puts more stress on the heart than does alcohol.

11. Alcohol causes more psychological problems than marijuana does.

12. Alcohol is more harmful to the reproductive system than marijuana is.

13. Marijuana is not as bad for pregnant women as alcohol is.

14. Alcohol has more positive effects than marijuana does.

Answers

1. False. Although both drugs have a calming effect, marijuana can produce hallucinations. Alcohol, however, is essentially a sedative. Alcohol can cause hallucinations in the delirium tremens or "DT" stage of intense withdrawal.

2. True. Deprived of alcohol, chronic drinkers suffer physical withdrawal. But long-term users of marijuana (those who smoke six or more cigarettes a day) show no such symptoms; they experience a milder type of withdrawal.

Both drugs, however, can create psychological dependency — a process that begins with occasional enjoyment, proceeds to the level of habit, becomes a craving and ends with the need to use the drug to feel normal, Schaefer said.

In heavy use of alcohol, the last stage seems to be caused by alcohol-induced changes in cell membranes in the brain, liver and other parts of the body. Those cells membranes become rigid and remain so until more alcohol is consumed, according to a study cited in the July 31 issue of Science magazine.

3. True. Alcohol is expelled from the body within 8 to 36 hours, depending on the initial dose. The THC (marijuana's active ingredient) in one cigarette remains in the body for four to six weeks — occasionally creating mild flashback experiences.

The two drugs differ so much in this respect, Schaefer said, because the body has a natural chemical system for ridding itself of alcohol which is a carbohydrate. Carbohydrates are produced in our bodies in small amounts every day from certain foods.

Marijuana, however, is stored in fat cells; the body's biochemical system for its removal is not nearly as efficient. Crash diets that deplete the body's fat cells can rid the body of marijuana a bit more quickly.

4. False. Marijuana does not create hangovers. When overused, alcohol can cause thirst, headaches, rapid heartbeat, sweating, nausea and diarrhea as it leaves the body.

5. True. Since women are generally smaller than men, the same amount of either drug has a greater impact on their bodies. Women also have a larger proportion of fat cells, which store marijuana. Women are even more susceptible to the drugs just before their menstrual period because their bodies retain water and their metabolic processes slow.

6. False. Both pose serious risks. Marijuana affects perception, accuracy and reaction time and can cause short-term memory loss. The effects of alcohol are similar, although individual reactions vary. A drink or two with dinner may actually improve the driving skills of a nervous driver. But according to Schaefer, new research indicates that chronic heavy drinking can irreversibly impair night vision.

7. False. Since alcohol is a legal and commonly used drug, the

public accepts more bizarre and dangerous behavior from its users. Heavy marijuana use is not as common or obvious, so its effect on the public is not as widespread.

8. True. Marijuana is not known to cause any sleep disturbances. Alcohol suppresses the deepest stage of sleep and disrupts the rapid eye movement stage, where most dreaming occurs. Both alcohol-related disturbances can occur after one night of drinking and in chronic alcoholics when no alcohol has been consumed.

9. False. Marijuana interferes with short-term memory skills involving reaction time, number manipulation and perception, but it does not disrupt well-learned habits. Chronic alcohol use can create serious memory deterioration; even occasional overuse can cause blackouts — a type of temporary amnesia, Schaefer said.

10. True. Marijuana increases the heart rate by more than 50 percent, putting stress on the circulatory system. Schaefer said heart patients are strongly advised not to use the drug. The long-term effect of marijuana on young users has not been studied.

One or two drinks a day may benefit the heart by activating the chemicals that scrub artery walls. Studies have also shown that heart attack victims who give up alcohol are more likely to die from second heart attacks than those who continue to drink, Schaefer said. But long-term abuse of alcohol is related to high blood pressure and is bad for the heart, he said.

11. False. Alcohol disrupts thought processes, but marijuana causes emotional shifts that may result in paranoia. Marijuana also disrupts abstract thinking and verbal skills. Research is under way to determine whether these effects are permanent, Schaefer said.

12. True. But chronic use of either drug has serious effects. Long-term abuse of alcohol reduces fertility, impairs males' ability to develop healthy sperm and can even cause the testicles to atrophy. Chronic use of marijuana interferes with female fertility by disrupting ovulation; in males it reduces sperm levels, can damage sperm and can cause impotence. But, Schaefer said, marijuana's effects seem to be temporary.

13. False. Both cross the placenta from the mother to the fetus whose enzyme systems cannot process either drug. Both can cause lower birth weight, stillbirths and other abnormalities that are still being studied.

The serious effects of drinking are at least better known; one of every 600 babies born shows signs of fetal alcohol syndrome (FAS). Birth defects such as facial abnormalities, central nervous system disorders and mental retardation have been linked to FAS and chronic alcoholism in pregnant women.

14. True. Marijuana is useful in small doses for treating glaucoma, the nausea caused by some cancer treatments, asthma and perhaps for blocking the pain messages of the central nervous systems. But its disadvantages outweigh its advantages for most people.

The relaxation induced by marijuana can better be found through small doses of alcohol, one or two drinks a week, which have no apparent ill effects. But alcohol is a "baffling, cunning, powerful and patient drug" that must always be carefully watched, Schaefer said.

Scoring

A score of 12 to 14 is excellent; 9 to 13 is good; 6 to 8 is average; and fewer than six answers means you may want more information.

Chemical Dependency, Family Intimacy Workshops Start Feb. 8

The six-workshop Chemical Dependency and Family Intimacy Training Project for physicians and other health professionals will be at the University of Minnesota Minneapolis campus.

The workshops are Feb. 8–10, April 26–28, June 7–9, Sept. 13–15, Nov. 1–3, and Feb. 7–8, 1983. The project is sponsored by the Program in Human Sexuality, Department of Family Practice and Community Health and Medical School and is funded in part by a grant from the Office of Alcohol and Other Drug Abuse Programming at the University. The cost for the training project is $750.

For more information, contact Eli Colemen, Program in Human Sexuality, University of Minnesota, 2630 University Ave. S.E., Minneapolis, Minn. 55414 or telephone (612) 376-7520.

The project offers training opportunities for professionals who are aware of the relationship between chemical dependency and family intimacy dysfunction and want to deal with these problems in more effective ways. Identification of family intimacy dysfunction and treatment strategies is the focus of the program which aims to improve the treatment and rehabilitative services to chemically dependent persons and their families by focusing more specifically on intimacy and sexuality issues.

Study in Genetics

Alcoholism: A Family Disease

By Roy Pickens, Ph.D.
Department of Psychiatry
University of Minnesota

It is clear that alcoholism is a family disease. Awareness of this fact may help us to identify individuals at risk for developing chemical dependency. Application of prevention measures to the children of alcoholics may result in a significant reduction in risks for these individuals later developing chemical dependency. If this can be done, a significant reduction can be achieved in the number of adults requiring treatment for chemical dependency.

Physicians working with alcoholic parents have an obligation to warn their patients that their children have a high risk of developing alcoholism. This would sensitize parents to the needs of their children.

One of the main problems in applying prevention measures to the children of alcoholics is the problem of identifying such individuals. One method for doing so might be to work directly with the parents of such children. Alcoholic parents could be contacted at the time of their treatment and told of their children's risks for also developing the disorder. By sensitizing the alcoholic parent to the special needs of their children, the parents can be encouraged to direct their children towards prevention programs and to be supportive of such efforts. Identifying children at risk through their alcoholic parent would also serve to minimize invasion of privacy that would undoubtedly occur if the process was administered through the public schools or other social agencies. It would help to reduce the social stigma that might be attached to such identification as well.

Prevention vs. Treatment

While treatment occupies the attention of the majority of people working in the chemical dependency field, most would agree that prevention of chemical dependency is a more desirable long-term goal. If prevention efforts were successful there would be less need for treatment services, as there would be fewer chemically dependent individuals. Rather than becoming chemically dependent, such individuals would lead more normal, less disrupted lives. Not only would the savings in personal costs be enormous, but the economic savings to society in general would be considerable as well. Clearly, we should give more than just lip-service to the idea of preventing chemical dependency. In fact, it should be one of the primary objectives in the chemical dependency field.

Unfortunately, efforts in the past to prevent chemical dependency have not been highly successful. Initial attempts to use "scare tactics" and inflammatory literature had a negative, rather than positive effect on subsequent chemical abuse. More recently, attempts to use broad-based approaches such as affective education have been more successful, but the results have not been as striking as desired. At least part of the problem in demonstrating the effectiveness of prevention programs has involved the difficulty in proving the absence of a future event. How can you prove today that your efforts will be effective tomorrow in preventing chemical dependency?

Another problem in demonstrating the effectiveness of chemical dependency prevention measures has been a failure to identify target populations for application of the measures. For the most part the measures have been developed for use in the general population (for example, all fifth grade students in a public school). However, since only a small portion of the general population will ever become chemically dependent, it is perhaps not surprising that only a relatively small outcome effect has been found. Since prevention effects can only be expected to be effective in a relatively small number of cases, the effect is lost among the much larger number of individuals who have little need for the prevention measures.

Children of Alcoholics

It seems logical that we should focus our prevention efforts towards those at risk for developing chemical dependency rather than directing those efforts towards the general population. By directing our efforts towards those who are at the greatest risk, we will not only be more likely to demonstrate a significant prevention effect but we will also be providing help to those who need help the most. It will also allow us to make more efficient use of the increasingly limited financial resources that are available in the prevention field.

Men have a rate for developing chemical dependency that is almost three times that of women, but like the general population, men comprise a group that is too broad for prevention efforts to be efficiently directed. Other groups, however, are more narrowly defined and consequently would be more appropriate candidates for prevention efforts. One such group is the children of alcoholics. As we shall see, these individuals have a rate of developing chemical dependency that is several times higher than is found in the general population. Moreover, chemical dependency problems tend to develop in these individuals earlier than occurs in the general population. Because of this, the children of alcoholics would be an ideal group for the focus of prevention efforts.

In addition to the fetal alcoholism syndrome that at times occurs in children born of alcoholic mothers, such individuals have a higher incidence of hyperactivity, behavioral problems, and school problems than occurs in the general population. In a 1974 report to the National Institute on Alcohol Abuse and Alcoholism, a number of specific problems experienced by children were identified, including emotional neglect and verbal, physical and sexual abuse. While the higher than average incidence of alcoholism in the children of alcoholics has been noted, most emphasis has been placed on meeting the adjustment needs of the children.

Alcoholism in the male relatives of alcoholics occurs at a rate about six times higher than that seen in the general population, while alcoholism in the female relatives of alcoholics occurs at a rate that is about 15 times higher than seen in the general population, according to studies conducted between 1928 and 1948 in Europe.

D. W. Goodwin and his colleagues determined the incidence of alcoholism in a group of individuals born of alcoholic parents but separated from their biological parents shortly after birth and raised by non-alcoholic foster parents. Relatively strict criteria were employed for the diagnosis of alcoholism, including a history of criminality and extensive treatment for alcoholism. They found a much higher rate of alcoholism in this group than in a matched control group of individuals who were also separated from their biological parents shortly after birth and raised by non-alcoholic foster parents, but were born of non-alcoholic parents.

Sons of alcoholics were about four times more likely to develop alcoholism than were the sons of non-alcoholics, although both were raised by non-alcoholic foster parents. While the daughters of alcoholics were no more likely than controls to develop alcoholism, this finding appears to be related to criteria employed to diagnose alcoholism.

When less strict criteria are used to diagnose alcoholism, higher rates of alcohol abuse were found in daughters born of biological alcoholic mothers than in daughters born of non-alcoholic mothers. This type of alcohol abuse is characterized by the adult onset of the problem and no history of criminality requiring prolonged incarceration.

There was approximately 3 times more alcohol abuse in the sons and daughters of alcoholic mothers than in the sons and daughters of non-alcoholic mothers, even when both were raised by non-alcoholic parents. Daughters who were born of alcoholic parents and raised by alcohol abusers showed an even higher rate of alcohol abuse than daughters born of alcoholic parents and raised by parents who were not alcohol abusers (7.7 percent vs. 6.7 percent, respectively).

Interestingly, when the rate of alcohol abuse was examined in children from parents with a more severe form of alcoholism, results resembling those reported by Goodwin and his associates were found. In biological fathers with alcoholism characterized by the adolescent onset of alcohol abuse associated with both extensive treatment and serious criminality, a ninefold increase in alcohol abuse in their sons was found, regardless of whether they were raised by alcoholic or non-alcoholic parents.

Taken together, the results of the adoption studies suggest that, depending on the criteria used to diagnose alcoholism, the rate of alcoholism in the sons of alcoholic biological parents is three to nine times higher than in the sons of non-alcoholic biological parents, while the rate of alcoholism in the daughters of alcoholic women is three times higher than in the daughters of non-alcoholic women.

While alcoholic parents are more likely than non-alcoholic parents to produce alcoholic children, there are more non-alcoholic than alcoholic parents in the general population. It has been variously estimated that as many 50 to 60 percent of identifiable alcoholics were raised in a home with at least one alcoholic parent. In a comprehensive review of family studies of alcoholism, however, N. Cotton conservatively estimated that about one-third of any sample of alcoholics will have at least one parent who is alcoholic. At a local chemical dependent treatment center, we found that 21 percent of male alcoholics and 27 percent of female alcoholics report at least one biological parent being alcoholic. All of these patients met the Jellinek criteria for chronic alcoholism. Thus, we may assume that in the case of chronic alcoholism, approximately one of every three to four patients in treatment for alcoholism will report having at least one alcoholic parent.

Recent Research

Recently we investigated the characteristics that distinguish children born of alcoholic and non-alcoholic parents. Only chronic alcoholics raised by both biological parents were included in the study. The effects of having both parents alcoholic, only one parent alcoholic, or neither parent alcoholic was determined on a number of pretreatment, treatment, and posttreatment variables. Pretreatment variables studied included number of behavioral problems prior to treatment, previous admissions to chemical dependency treatment, number of alcohol-related arrests, number of days spent in jail, age at first intoxication, and maximum daily alcohol consumption in three months before entering treatment. Treatment variables included whether alcohol use was deemed sufficient by the medical staff to warrant gradual withdrawal, the length of treatment, the type of discharge, and the number of Jellinek signs and symptoms of alcoholism endorsed by the patient on entering treatment. Posttreatment variables included the quantity and frequency of drinking after treatment, rating of job performance, rating of quality of social relationships, frequency of A.A. attendance, and number of hospitalizations since treatment.

As the number of alcoholic parents increased, the earlier was the reported age at first intoxication, the more rapid was the progression from first intoxication to treatment, and the more numerous were pre-treatment behavioral problems (school suspensions, alcohol-related arrests, and days spent in jail).

While number of alcoholic parents was related to nearly all pretreatment variables, it was unrelated to severity of the disorder at the time of treatment (as measured by amount consumed, number of alcoholism symptoms, necessity for gradual withdrawal, number of prior admissions, and number of alcohol-related hospitalizations). Neither was the number of alcoholic parents related to prognosis at completion of treatment, or to outcome measured 4, 8, and 12 months after discharge.

Taken together, these results suggest that number of alcoholic parents is related primarily to the development of alcoholism. While no significant difference was found in the severity of alcoholism at the time of treatment for patients with zero, one, and two parents alcoholic, the time from first intoxication to admission to treatment was the shortest for children of two alcoholic parents, somewhat longer for children of one alcoholic parent, and longest for children of no alcoholic parents. This suggests that the alcoholism process is telescoped in individuals having alcoholic parents, and that the amount of the telescoping is directly related to the number of alcoholic parents.

No differences were found among the groups in either treatment variables or posttreatment variables. Although the groups differed in time required to become alcoholic, no differences were evident in the progress of the groups through treatment or in outcome results for up to one year after treatment discharge. This suggests that although there may have been an influence of number of alcoholic parents on the development of alcoholism, treatment was equally effective in all groups.

Other High Risks

Others that have an even higher rate of alcoholism than the children of alcoholics are the brothers and sisters of alcoholics. G. Winokur and associates found that brothers of male alcoholics had a lifetime expectancy of alcoholism of 45 percent while the sisters of male alcoholics had a lifetime expectancy of alcoholism of 5 percent. Brothers of female alcoholics had a lifetime expectancy of alcoholism of 50 percent while sisters of female alcoholics had a lifetime expectancy of alcoholism of 8 percent.

While it would be tempting to include such individuals in an alcoholism prevention program, it would not be practical to do so. This is because of the relatively close ages of most brothers and sisters. By the time alcoholism developed in one sibling, it is likely that it would already be developing in others as well. Only if wide differences existed in the ages of the siblings would it be possible to use alcoholism in one sibling as a predictor of high risk for alcoholism in other brothers and sisters. With the children of alcoholics, on the other hand, the relatively large differences in ages of parents and children would allow alcoholism in the parents to be used as a predictor of high risk for alcoholism in their children.

Prevention in High Risks

In 1974 there were an estimated 28 million children under age 18 in the U.S. that were born of alcoholic parents. Given that these children of alcoholics have a higher risk for developing alcoholism than individuals in the general population, can prevention programs be developed to lessen this risk? Since prevention measures have already been developed for application in the general population, there is no reason to expect these same measures cannot also be applied to reduce the risk of chemical dependency in the children of alcoholics. In fact, by concentrating on a high-risk population, demonstration of the effectiveness of these measures in preventing chemical dependency might be considerably enhanced.

Comparative Test

A study to compare the effects of alcohol on children of alcoholic and non-alcoholic parents is being planned by Dr. Roy Pickens of the University of Minnesota Department of Psychiatry.

In this study, six to 10 persons would be admitted to the University Hospitals for two days. The first day would be to monitor the metabolism of alcohol in the two groups and the second would be to observe any changes that occur. Pickens said about $6,000 is needed to cover hospital costs for the study. Persons interested in supporting this research are encouraged to make donations to the "Alcoholism Study" in care of the Minnesota Medical Foundation, Box 193 Mayo Building, University of Minnesota, Minneapolis, Minn. 55455.

Study in Stress

Eating/Not Gaining Weight

By Ralph Heussner
University News Service

A successful young businesswoman developed a $100-a-day food habit that drove her into bankruptcy. But she avoided gaining weight by vomiting four or five times a day.

A 19-year-old ballerina consumed two bags of junk food after her daily workouts, but she maintained her trim, athletic figure by chewing laxatives like candy and vomiting until her eyes were bloodshot.

These young women are victims of bulimia, a chronic eating disorder characterized by compulsive eating binges, habitual vomiting and use of laxatives.

A study by University of Minnesota psychiatrists Dr. Richard Pyle, director, adult outpatient psychiatry, and Drs. James Mitchell and Elke Eckert reveals that the onset of bulimic behavior often is associated with stress, such as the traumatic loss of a loved one, and voluntary dieting. Traumatic events were reported in 30 of 34 cases with the most common type of trauma being loss of or separation from a significant person in their lives.

A high rate of chemical dependency and stealing behavior was common in patients with bulimia, the study found. Eighteen started a pattern of stealing after the onset of the eating disorder and, in a few cases, stealing food became part of the binge-eating ritual. "Many of those who had stolen food gave as a reason the fact that they could not afford to buy enough food to meet their binge-eating requirements," Pyle said. "In some cases, individuals had taken second jobs to help pay for the food they consumed."

Pyle and fellow University psychiatrists Eckert and Mitchell observed that patients with bulimia were quite depressed. "The most striking personality characteristic seen in many of these patients was the problem with impulse control," the study noted. "This seemed to go beyond the binge eating to involve other areas of their lives. "This disorder was not just a nuisance for these individuals, but a significant pathological state which interfered with day-to-day activities," the researchers continued. "Many indicated that all they ever did was work, sleep and binge. Despite financial difficulties, constriction of interests and deteriorating interpersonal relationships, none of these individuals had been able to stop binge eating although all stated they had tried."

Bulimic behavior can result in medical complications, although bulimics avoid the weight gain of compulsive eaters while not appearing wasted-away. Patients at the University Hospitals complained of sore throats and many stated that they had been having dental hygiene problems. One of the patients was hospitalized for acute gastric dilation following a binge-eating episode; another had a full set of dentures because the frequent vomiting had brought stomach acid in constant contact with her teeth, destroying all of the enamel.

To do the Minnesota study, researchers evaluated 34 patients with bulimia over a period of one year. All were white and female; the median age of the group was 24. Most came from stable family backgrounds, were employed and had at least started college.

The median age of onset of bulimia was 18 with only one case beginning after age 30. Most patients had bulimia an average of four years before seeking treatment. A majority of patients engaged in daily binge eating, which was followed by vomiting. Some used laxatives at least several times a week. Binge eating was usually done in private and lasted an average of one hour.

Prior to the onset of the binges, the patients reported a craving for certain foods, an uncontrollable appetite, and a feeling of unhappiness. Afterward, most individuals felt guilty, worried or full.

In 30 of the 34 cases, the onset of bulimic behavior was associated with voluntary dieting, the report said. "All the patients in our series expressed an exaggerated fear of becoming obese and most seemed to see themselves as overweight," Pyle said. "Actually, most of these patients were slender."

Twenty-four of the 34 weighed below the median weight given for their height in the Metropolitan Life Insurance Tables. Only two patients weighed more than five kilograms above the median weight. None of these individuals was markedly overweight at the time of the onset of bulimia, researchers said.

Pyle said bulimia typically affects young, upwardly mobile women from upper and middle class backgrounds. He estimates that 2 to 4 percent of all first-year college women suffered to some degree from this eating disorder. "Our clinical experience would indicate that bulimia is a fairly common problem," said Pyle.

While bulimics are secretive about their problem, group therapy shows promise in the treatment because it relieves the sense of isolation and private guilt associated with the disorder. As a result of this discovery, a bulimia treatment program began in 1981 at the University Hospitals and Clinic in response to "an expressed need in the community." A local television documentary series on bulimia in 1980 reportedly prompted more than 3,000 telephone calls from individuals seeking more information on treatment.

In the University program,

developed after two years of treatment experiments, bulimics meet in small groups five nights a week for two weeks of intensive therapy with a team of psychiatrists, psychologists, social workers, nurses, nutritionists and recovering bulimics. Each session lasts about four hours and includes a relaxation period, lecture, meal and group therapy. Following the two-week period, patients continue to meet regularly with their support group.

"Our goal is to create a community of recovering bulimics who can encourage and support one another in their recovery," said Gretchen Goff, program coordinator and a former bulimic.

"There is a feeling among bulimics that their situation is hopeless. We want to let them know that they can be helped."

For more information, contact the Behavioral Health Clinic at the University of Minnesota at (612) 376-9166.

Study in Stress

Voluntary Starvation

Patients with anorexia nervosa, the starvation disease, exhibit many of the same attitudes as individuals with bulimia, such as a desire to remain thin. In a University of Minnesota study, researchers found that 16 of 34 women with bulimia had anorexia nervosa in the past, although only five had documented diagnoses. Within the past two years, a distinction has been made between the two diseases.

Generally speaking, about 10 patients at a given time are admitted to the Station 61 psychiatric ward at the University Hospitals for treatment and study for two to six months under an anorexia nervosa research grant from the National Institute of Mental Health. Funding under the grant continues until June at which time University psychiatric researchers hope to have money to conduct followup studies on anorexics who have left the ward. Results of the current study will be reported soon by the project's principal investigator, Dr. Elke Eckert, associate professor, Department of Psychiatry.

"I do think that anorexia nervosa is a stress related illness," said Leah Labeck, registered nurse, research coordinator and therapist for anorexia nervosa research grant patients in Station 61.

Stanton Peele, in his book, *How Much is Too Much*, offers this example of how people strive so hard to be thin that they endanger their health: The parents of an anorexic woman had been obese and had successfully lost weight as adults. They continually reminded their daughter not to eat as much as she wanted to, destroying her natural ability to regulate her intake and expenditure of calories. A perpetual near-starvation diet was her frightened response to not becoming fat, according to Peele.

As is true of the chemically dependent or chemically abusive person, the anorexic exaggerates normal personality characteristics. Being thin, being perfect is compulsive with the anorexic. The more they are into starvation, the greater the exaggeration of these traits. The first priority of the treatment at the University Hospitals is to gain weight, then the compulsive traits become more manageable.

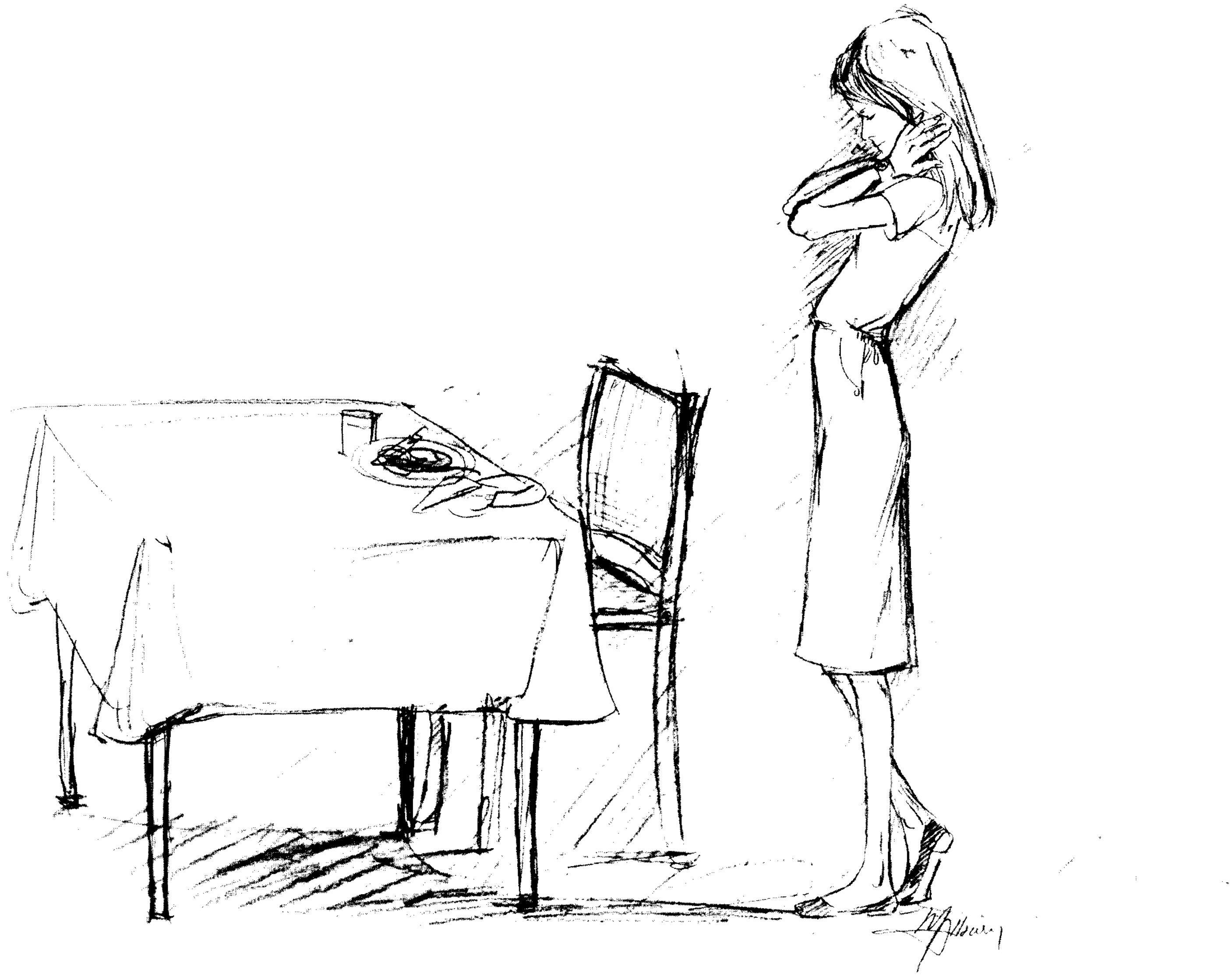
The similarities between the compulsiveness of the anorexic and chemically dependent person enable the staff in Station 61 to treat both these types of patients in the same group therapy sessions, although there are separate sessions for the anorexic.

Hospitalization is necessary when the patient's weight is 15 to 30 percent below what it should be, when the patient has no interest in eating, when concentration is poor, when loss of memory is common, where irritability and depression are constant, when sleeping is difficult and where the smallest task is insurmountable due to starvation. Depression is a factor, but difficult to generalize about. Does depression cause the loss of appetite or does depression result from the starvation diet? Researchers at the University Hospitals seek the answer to this question.

Building self-esteem, for both the anorexic and the chemically dependent, is the aim of classes on assertion, rational living and social skills and sessions on sharing feelings for all patients in the ward. Dealing with aggressive people, being aggressive while ineffective, not arguing, stuffing emotions, handling sad farewells in the ward and in everyday life — these are some of the issues dealt with in the classes.

Barb (not her real name), a patient in the anorexic program, showed in the assertion class that out of the home setting she could deal assertively in a situation where she had strong feelings. She recalled a real life scene in the home where her brother told her parents that he wanted to leave home. Barb took the mother's part and Tim (not his real name) was the son. With persistence and vigor Barb won handily over Tim. "What kind of job are you going to get without a diploma?," was the question that effectively ended the discussion.

Aside from the previous success, Barb could look back with a sense



of accomplishment in the social skills class, conducted by Betty Scieszinski, R.N., on how easier it had become to say goodbye to her parents after their regular visits. "A lot of times I would get upset. I felt I could breakdown and cry. I would get sick physically. Now it is easier to say goodbye to mom and dad. Before I was so dependent. Here I had to get well and take responsibility for myself."

Patients learn more effective ways to solve their problems. With behavior changes, they are able to get in touch with feelings that they had "stuffed." Beyond direct work with the patient, Labeck assesses the family situation, involves the family and works with the family to continue the anorexic's recovery after she leaves the hospital.

"Starvation is an extreme way to get attention. You need to do something about it by getting people involved," Labeck said.

Patients Labeck sees tend to be socially immature, not wanting to grow up, viewing relationships with men and parents as adolescents do although they are beyond their teens and involved in conflicts between dependence and independence. They are generally sexually naive — fear dating, edgy about intimacies with men and with their extreme weight losses have little interest in sexual encounters. In addition, they live by a strict moral code. "No one can live up to this code," Labeck said.

Labeck said the nurses in Station 61 deserve credit for the "big job" they do in monitoring the anorexics' behavior — trying to detect devious behavior such as filling up on water to get their weight up, hiding food to make it appear they are eating and using laxatives when they are away from the hospital on passes. With the way anorexics tend to internalize feelings, it makes the task difficult. "We try to teach them to be more up front about what is going on," Labeck added.

For the family physician, probing questions are in order in weight loss cases. "What is a day's diet?" Suspected anorexic patients should be involved with someone who understands the anorexic nervosa process. Telling the patient to eat does not solve the problem. Too few cases will be resolved by ignoring it. A greater number will die with benign neglect. In fact, 5 to 20 percent of the people who have the problem will die from it. "That's extremely high," Labeck said.

With one in 200 high school girls, a conservative estimate, afflicted by anorexia nervosa, physical education teachers should be alert to the signs of this syndrome. With increasing numbers of girls in athletics, competition is greater. They work harder, burn up more calories and take more time away from eating, she said.

Study in Stress

Why Can't Nurses Quit Smoking?

Most health professionals try to provide good, healthy role models for their patients, especially concerning cigarette smoking. As an example, fifty-five to sixty-five percent of doctors, pharmacists and dentists have quit smoking, compared to a 43-percent quit rate for the total male population.

But nurses, who represent over one-half of the work force in the health professions, have a quit rate of only 36 percent, a figure only marginally above the female population's quit rate of 34 percent. In addition, the prevalence of smoking among nurses is way above the national average for women. Why do nurses who see the effects of bad health habits every day continue to smoke? Two University of Minnesota researchers, Bernadine Feldman, associate professor in the School of Nursing, and Elaine Richard, assistant professor in the School of Public Health, hope to find out. Their study will follow 24 smoking nurses over one year.

Women in general have more difficulty quitting smoking than men do but no one knows why, Feldman said. "It may be because women vacillate more in their decision making than men do," said Eileen Rotman, founder of UNSMOKE, a group behavior modification program that will be part of the study. "When men decide to quit, they seem to have more success at it than women do." The results of an all-female pilot group at UNSMOKE were "dismal" compared to results of mixed groups or all male groups, Rotman said. Of 12 group members, only two quit. By comparison, in mixed groups 35 percent of the members usually succeed. Smoking abstinence during the 12 month follow-up period was also far lower in the all-women group.

The reason many women and especially nurses can't quit smoking may be tied to traditional women's issues, Feldman said. "All the factors related to women in society — submissiveness, passivity, dealing with men on a paternalistic basis — create a 'double whammy' for nurses because of their submissive relationships with doctors." The stress of nursing may also have an effect since nurses in a stressful clinical setting smoke more than nonclinical nurses do.

Study in Stress

Burnout in Nurses

By David S. Simmons

Job stress and burnout can benefit nurses if used for personal and professional growth, clinical psychologist John Brantner said during a recent seminar at University Hospitals.

The seminar was the first of three job-stress seminars organized by the hospitals' epilepsy and psychiatric treatment departments. Brantner, a University of Minnesota psychiatry professor who has studied the psychological aspects of hospital health care, said burnout in any profession comes from job stress, and jobs in the health care field are among the most stress-filled.

"Nurses get a steady diet of tragedy, death, and hopeless cases," Brantner said. They see the results of society's "ingenious wickedness" in the form of crippling injuries caused by social problems that range from drunk driving to child abuse and drug addiction.

Brantner said the rage nurses feel when confronted daily by that kind of injustice — pain needlessly suffered — is emotionally draining. Equally draining is the hopelessness and frustration experienced by nurses working with patients who will always be blind, will never walk again, will never talk or hear, or will eventually die of cancer no matter how much care they are given.

All of these circumstances cause stress, Brantner said, but added that "elements of stress are elements of life." Stress creates excitement and provides challenges. "Death is the absence of stress," Brantner said. Caring for others by giving of yourself is stressful but personally rewarding because the sacrifice and the contribution you make are both genuine.

Brantner said that nurses who want to be the best will seek out a certain number of the worst, most stressful cases because they learn the most from working with those types of patients.

Constant exposure to patients in critical condition would be too much for anybody, Brantner said, but succeeding with those extreme patients gives nurses the most personal satisfaction and professional fulfillment.

However, a consequence for seeking out those challenging patients and learning from caring for them is this: The better a nurse gets at handling difficult patients, the more difficult patients that nurse is given.

Brantner said burnout comes inevitably to the best nurses because their higher level of skill causes them to care for many more difficult patients. Because of the seriousness of those patient's problems, "the burden of anguish and suffering can become too much."

That burden causes nurses, who

had always put their patients' needs above their own, to compare their own needs to those of their patients — needs for comforting when nurses have family, personal, social, and health problems of their own. Brantner said burnout can become self-pity if a nurse decides that "my needs are greater." After the decision, the nurse stops caring about his or her patients, withdraws emotionally from the job, and becomes less effective. But Brantner said burnout also can be the sign that a nurse is entering his or her final stage of professional development.

Nurses can use the discoveries they make about themselves in the burnout stage to reach the peak of their potential. By becoming aware of their strengths and weaknesses, nurses can make intelligent decisions about their work assignments based on an understanding of their own skills.

Brantner said meeting one's personal needs is the common-sense method he suggests for fighting burnout.

His recommendations are simple, but they've been proved effective, he said. They include:

- Expressing bad or negative feelings. It is never good to keep things bottled up. Some people don't express their negative feelings in ways that get results. Assertiveness training can help that.
- Being active. "Every week I see more studies showing the contributions that regular physical and mental activities" make to a person's mental health.
- Working to meet new people. Constantly add to the number of friends you have because nobody ever has enough of them.
- Planning for the use of solitude. Solitude has great power to regenerate people. Set aside a specific time every week to be alone and reflect on your life.

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How Does Work Influence Health?

By Robert L. Veninga, Ph.D.

Editor's note: The subject of stress has become a topic of wide interest in both the popular press and in the scientific community. This is the first of a two-part series exploring the relationship between work and health.

One of the most promising areas of new research is the investigation of the relationship between work, health and mental well-being. It has long been hypothesized that work and health are closely linked, yet it has only been during the past two decades that we have begun to fully appreciate the ways in which work influences physiology and mental health.

As a starting point, it should be emphasized that for most Americans, work is a strong and positive motivating force. Dr. Hans Selye, an endocrinologist and the father of stress research, differentiates between two types of stress: eustress and distress. Individuals who experience *eu*stress (the Greek prefix eu means "good") report that they find a challenge in their jobs, they enjoy their co-workers and feel they are contributing to society — whether it be by driving a truck, building a kitchen cabinet or helping patients and clients. It is increasingly recognized that when there is a good "fit" between a person's talents and the work that needs to be undertaken, health is influenced in a positive direction.

While work can contribute to optimal health, most of the research has focused on how work leads to *dis*tress, the consequences of which can be ill health. What has been found is that stress *per se* is not the culprit in undermining wellness; rather it is *unrelieved stress* that continues day after day, month after month, and even year after year that is the chief villain in diminishing the worker's well-being.

There are four conditions that create distress in contemporary organizations: Work overload; lack of support from supervisor and/or colleagues; supervisory responsibilities; threat of job loss.

Work Overload: Working long hours has become a way of life for many people. For some, it is because the work itself contains intrinsic rewards. They report that they would rather be working than doing most any other thing. But for many the long hours are put in reluctantly. Examples of such workers are numerous: There is the salesman who works on weekends because the soft economy has eroded his earnings. There is the assembly line worker who returns home for a quick sandwich and then heads off to a second job; there is the single parent whose paycheck supports the family, yet undertakes a second "job" entailing cooking and housework and the giving of emotional support to the children. It's a sobering fact that 55 percent of working women report that they have absolutely no leisure time.

What happens to the health of such workers? Does it matter that their work week approaches two, 40-hour jobs? The evidence would seem to suggest that there is reason for concern for it appears that workers who, *on a regular basis*, are subject to work overload may experience symptoms of ill health.

In a study of 100 young coronary patients, Russek and Zohman (1958) found that 25 percent of these patients had been working at two jobs prior to the discovery of their coronary problems while an additional 45 percent had worked at two jobs that required (due to work overload) 60 or more hours per week. The researchers noted that prolonged emotional strain preceded the heart attack in 91 percent of the cases. In an investigation of mortality rates in men in California, Breslow and Buell (1960) found that workers in light industry under the age of 45 who were on the job more than 48 hours per week had twice the risk from coronary heart disease as compared with individuals working 40 or fewer hours per week.

Quantitative work overload (total number of hours worked) does, in fact, take a toll on the health of some workers. But qualitative work overload has similar effects. When demands are made on workers that are perceived to be "unreasonable" or "unrealistic" workers often blame themselves ("Maybe the problem is me.") resulting in lower self-esteem. It is interesting to note that when workers believe that the standards are too high their cholesterol levels increase as observed in accountants seeking to meet deadlines and medical students performing in medical examinations.

In brief, quantitative and qualitative work overload is one important source of stress in contemporary work environments. Among the visible effects are job dissatisfaction, increased job tension, high cholesteral levels, increased heart rate, increased smoking and escapist drinking.

Lack of Support. The types of relationships that we have at work are also a contributor or a detractor to health. In our own research, Dr. James Spradley, an urban anthropologist from Macalester College, and myself noted that workers who reported high job satisfaction often commented about their positive relationships with co-workers. Statements such as "I really have some good friends at work" or "They really care about what happens to me" were indicative that the social support system at work was often a strong buffer from taxing work responsibilities. But we also found that there is a correlation between work *dis*satisfaction and the absence of a strong support system. "You could leave this company and they would never miss you" or "Nobody helps anybody else; it's everyone for himself" are statements indicating that the social support system is weak. When workers do not perceive that they have social support at work, they frequently perceive that they are "cogs in a wheel" and consequently are not permitted to participate in any meaningful way in the decision-making structure of the organization. In one of the most important studies on work and health, non-participation was found to be significantly related to the following health risk factors: overall poor physical health, escapist drinking, depressed mood, low job satisfaction and low motivation to work (Margolis, 1974). In those work settings where employees feel a sense of support and a sense of being included in those decisions that affect their working lives, there is evidence that they are more productive, quit less frequently and have lower levels of physical and mental health risks (Cooper, Marshall, 1976).

Supervisory responsibility. A major source of stress for many executives and managers comes from the fact that they supervise workers — workers who often have their own agendas and their unique personalities and communicating behaviors. For some managers there is an exhilaration which comes in building a "management team," in giving rewards to talented employees and even in serving as a mentor to young employees. Indeed, it is these positive motivations that often make supervisory work attractive. But for others, the mediating of conflicts, the gaining of consensus on decisions and the continual pressure to balance the budget, produces debilitating stress. Researchers have studied supervisors and have contrasted their health risk factors with workers who have responsibility for "things" (mechanics, farmers, architects, etc.). It has been found that those workers who have responsibility for people are significantly more likely to develop coronary heart disease than those whose basic work is with objects. In addition, French and Caplan (1970) found that responsibility for people is significantly related to heavy smoking, diastolic blood pressure and serum cholesteral levels.

One of the more intriguing studies that has been undertaken was carried out by D. M. Rioch. He used pairs of monkeys, visible to each other, who engaged in a recurring six-hour "task" situation. Robert L. Kahn describes the experiment: "During the 'work' period, a shock was scheduled for application at regular intervals, which were sometimes as brief as 20 seconds. Each monkey had access to a lever, and one of the levers was 'preventive.' If the preventive lever was pressed, the shock was avoided, not only for the monkey that pressed it but for the other monkey as well; hence the term 'executive' was used for the animal whose behavior permitted or prevented the punishing shock. The design of the experiment ensured that the exposure of both animals to the electric shock would be identical; they escaped or were punished together, but only one of them — the executive could prevent the shock." The results of this study: All of the "executive monkeys" died of gastrointestinal lesions in periods varying from 9 to 48 days. The same shocks were given to the nonexecutive monkeys, but none died and none showed gastrointestinal pathology. Clearly, having responsibility for the well-being of others is a unique stressor whose implications for health are just now beginning to be understood.

Threat of Job Loss. One of the strongest threats to an employee's well-being comes when he or she learns that they have been "laid off" or "fired". At the time of writing this article it was announced in Washington, D.C., that unemployment was reaching 9 percent — one of the highest levels of unemployment that has been experienced in a number of years. What happens when an individual loses his job? Does it affect his physiological health as well as his mental health? The answer is in the affirmative. While individuals threatened with job loss commonly report depression, anxiety, anger and resentment (Cob, Kasl, 1977) there is also an increased amount of illness. In one study men who lost their jobs had 17 times as many "days of ulcer activity" as compared with workers whose jobs were stable. (Dunn, Cobb, 1962) Three of the worker's wives were hospitalized for peptic ulcers within two months of their husband's termination. Arthritis, a stress responsive disease, appears to increase when workers find out they are to be terminated. Twenty percent of soon-to-be laid-off workers at two companies were found to have two more swollen joints. Interestingly, however, Robert L. Kahn reports that these arthritic symptoms abated quickly for those who were able to find a steady job. Hypertension appears very early when workers learn that they may be terminated. Fortunately, in most cases, it too recedes when stable employment resumes. As might be anticipated, when employees find out that they might lose their economic viability, they often turn to drugs and will subsequently "call in sick," which contributes to the economic losses that their employer is experiencing.

In summary, work has a powerful influence on health. When in a state of eustress workers are exhilarated by their jobs, report feelings of accomplishment and a sense of "contentment" with life. Distress, on the other hand, results when the stress is unrelieved — when the hours routinely reach astronomical figures, or when workers sense that they do not have a meaningful support network, or when there is a threat of job loss. The preliminary, yet pioneering research that has been completed, would seem to indicate that we are just now beginning to understand the powerful influence work has on our health and mental outlook.

Robert L. Veninga, Ph.D., is an associate professor, School of Public Health, University of Minnesota. He is the co-author with James Spradley of The Work/Stress Connection: How to Cope with Job Burnout, *(Boston, Little, Brown and Co., 1981)*

Names Make News

Campus

MMF Equipment Grant

It was the largest single expenditure ever made by the Minnesota Medical Foundation for research equipment — $164,562 out of total 1980–81 special grants of $229,725.

The grant for the fluorescent activated cell sorter basic system (Becton Dickinson FACS 4) was made to Dr. Fritz H. Bach, director, Immunobiology Research Center at the University of Minnesota, but the equipment is used by several other departments in the Medical School and University Hospitals. Other researchers, outside medicine, at the University have expressed interest in sharing time on the FACS.

The FACS has simplified and expedited cancer research work at the University by removing and isolating cell populations from a blood sample without really changing or damaging them. This is particularly important in studying the effects of anti-tumor agents on tumor cells, explains Dr. Miriam Segall, assistant professor in the Immunobiology Research Center. (Segall has experience with the original equipment, FACS 1, as a researcher at the Institute of Genetics, University of Cologne, Germany).

While presently it is used mostly for research, some work is underway to develop diagnostic applications of the FACS System.

The FACS System rapidly analyzes and separates cells based on fluorescent and light-scattering properties by introducing cells in suspension to the center of a liquid stream and causing them to pass, one at a time, through a focused, high-power laser beam. In passing through the laser beam, a cell announces its presence by a characteristic scatter signal, which occurs for all cells, and by one or more fluorescence signals, which may also be generated. Each cell is individually characterized by the intensity of the light scattered by the cell and by the intensity, color or polarization of fluorescence emitted while it is in the laser beam. Photodetectors convert the optical signals into electrical signals which are processed by the instrument.

Generally, results of the signal processing are displayed as a profile histogram or two-dimensional dot plots and three-dimensional isometrics. They can be recorded as an x-y plot, paper printout or photograph or can be stored on magnetic tape cassettes or on removable floppy discs.

In Minnesota, only the University and Mayo Clinic in Rochester have the sophisticated FACS System.

New Equipment to Aid Orthopaedic Researchers

New research equipment financed by the Minnesota Medical Foundation is expected to give University of Minnesota Medical School orthopaedic surgeons a better understanding of arthritic joint diseases, cancerous cartilage tumors and painful disc diseases.

The Foundation recently awarded $18,210 to Dr. Theodore R. Oegema Jr., associate professor of orthopaedic surgery and biochemistry, to purchase a high pressure liquid chromatograph (HPLC), a versatile, analytical instrument needed for research at the University.

The HPLC, a new instrument developed in the past five years, allows researchers to isolate and analyze small amounts of biological materials. It is expected to be in the laboratory within the next few months.

Oegema said the HPLC is 100-fold more sensitive and 10 times faster than equipment presently used. "It will allow us to do a lot of things we couldn't do before and it will give us a better understanding of these things," he added.

The Minnesota Medical Foundation also awarded $51,900 for faculty medical research and $6,000 for student medical research at the University of Minnesota.

Watson Award

Dr. Larry G. Lasky, a postdoctoral associate at the University of Minnesota, is the 1981–82 winner of the $1,000 C. J. Watson Award from the Minnesota Medical Foundation.

Research in collecting blood stem cells that could lead to advances in bone marrow transplantations brought Lasky the Watson Award, which recognizes outstanding research by a graduate clinical fellow or resident at the University.

Lasky credits other researchers with help in this study, including Dr. Robert Ash, hematology fellow; Dr. Eshmail Zanjani, physiology and medicine; Dr. John Kersey, pediatrics and laboratory medicine; and Dr. Jeffrey McCullough, War Memorial Blood Bank.

Lasky is the assistant director of the Laboratory Data Division, Department of Laboratory Medicine and Pathology, and is associate medical director, War Memorial Blood Bank, Minneapolis.

Before joining the University in 1977, as a clinical pathology resident, Lasky was a surgical intern at the University of Michigan where he received his medical degree in 1976. He is a member of Phi Beta Kappa, academic honorary society, and Phi Lambda Upsilon, honorary chemical society.

The Watson Award, co-sponsored by the Foundation and the Minnesota society of Internal Medicine, was started in 1961 by the society in honor of Dr. Cecil James Watson, emeritus regents' professor of medicine at the University and long time head of the Department of Medicine. The winner is selected by the Medical School Honors and Awards Committee with a member of the Society.

Boynton Scholarships

Karen Olson and Alyce M. Hamilton, both of Minneapolis, are 1981–82 winners of Ruth Boynton Memorial Scholarships for Women Medical Students. They each were presented $600 checks by the Minnesota Medical Foundation.

Olson graduated from Macalester College, St. Paul, in 1972, and is a third-year student in the University of Minnesota Medical School.

Hamilton, a fourth-year student, graduated from Macalester College in 1977 where she won a biology award and was the Outstanding Woman Athlete in 1977.

The scholarship fund was established in memory of Dr. Ruth Boynton, who died in 1978 and was the director of the Student Health Service at the University for many years.

Spink Collection

Selection from Dr. Wesley W. Spink's collection of books and photographs on brucellosis are being featured this winter in the Owen H. Wangensteen Historical Library of Biology and Medicine in Diehl Hall at the University of Minnesota, Minneapolis. Library hours are 8 a.m. to 5 p.m. Monday through Friday.

Referral Service

New toll-free telephone numbers will make it easier for patients, doctors and hospitals to find information and services they need at the University of Minnesota Hospitals and Clinics. Minnesota residents should call 800-462-5301 to reach the Referral Information Center at the university. Callers in other states should dial 800-328-5517. The numbers for callers in the Twin Cities area are 373-8002 and 373-8500.

Four Get Awards

Three University of Minnesota medical students have each received $1,000 Nicollet Clinic Founders Scholarships from the Minnesota Medical Foundation. They were: Tom Leverone, Golden Valley, second year; Cynthia Lystad, St. Paul, third year; Steven T. Janousek, Moorhead, second year; and Kevin Treacy, Winona, third year.

Brookings Fellowship

Dr. Marilyn L. Bach, a former University of Minnesota associate professor, has been awarded a Brookings Fellowship in Science and Public Policy. She is special assistant to the director for program development, National Institute of Allergy and Infectious Diseases. Dr. Bach was on the faculty of the Medical School and the Center for Health Services Research of the School of Public Health.

Retires from Practice

Dr. James Pattee, coordinator of the gerontology program in the Department of Family Practice at the University of Minnesota, has retired from his private practice in Crystal after 27 years. He continues as medical director of the North Ridge Care Center, New Hope.

Gullickson Elected

Dr. Glenn Gullickson Jr., professor of physical medicine and rehabilitation at the University of Minnesota, has been elected second vice president of the American Congress of Rehabilitation Medicine.

Attending a reception held this past fall on the University of Minnesota's Minneapolis campus were, from left, Dr. Wesley W. Spink, Mrs. Harold Scheie, and Dr. Harold G. Scheie, Philadelphia, a 1935 graduate of the University of Minnesota Medical School. Dr. Scheie is a former ophthalmology department head at the University of Pennsylvania and the founder of the Scheie Eye Clinic. The reception was given by the Department of the History of Medicine for the late Dr. Owen H. Wangensteen's book, Elias Potter Lyon: Minnesota's Leader in Medical Education. *Dr. Spink is a contributor to the book.*

Dr. Ronald D. Soltis, associate professor, Department of Medicine, received $1,000 from the Minnesota Medical Foundation as a 1981 winner of a Distinguished Teaching Award.

Receiving a Distinguished Teaching Award was Dr. Terry Rosborough, assistant chief, Medicine Service, Veterans Administration Medical Center, at the Minnesota Medical Foundation's annual meeting this past fall.

Alumni

1950s

Dr. Martin Z. Fruchtman, '56, Waukesha, Wis., is the president-elect of the Wisconsin Allergy Society where he was secretary-treasurer. He is certified in internal medicine and allergy and clinical immunology and practices in the treatment of allergic disorders. Fruchtman is a member of the Wisconsin State Medical Society's Commission on Continuing Medical Education, which he chaired for two years. He has been active in local comprehensive health planning.

Dr. Frank Dennis, '54, serving in Taiwan with the Evangelical Alliance Mission, returned to Minneapolis in December for his daughter Ruth's wedding. He and his wife, Sally, also visited family in Minnesota, Wyoming, Colorado, New Mexico, Alabama and Mississippi before returning to Taiwan.

1960s

Dr. Norbert O'Keefe, '55, Bismarck, N.D., is the chairman of the radiology department at the University of North Dakota School of Medicine, Grand Forks. O'Keefe, a UND medical school faculty member since 1974, is associated with Central Dakota Radiologists, P.C.

Dr. Joseph Perpich, '66, is the vice president for corporate planning and administration at Genex Corp., a recombinant DNA technology firm in Rockville, Md. In addition to corporate planning, his duties include human resources management, communications, public affairs and legal and regulatory activities. Previously he was associate director for program planning and evaluation at the National Institutes of Health, Bethesda, Md.

Dr. Daniel R. Baker, '62, is the president-elect of the Hennepin County Medical Society. He has been practicing since 1969 with Specialists in General Surgery, Ltd., and is a member of the medical staffs of Mercy Medical Center, Unity Medical Center and North Memorial Medical Center. Dr. Baker is a diplomat of the American Board of Surgery and an associate clinical professor of surgery at the University of Minnesota Medical School.

Dr. Robert E. Kalina, '60, Bellevue, Wash., professor and chairman of ophthalmology at the University of Washington School of Medicine, has been elected to the American Board of Ophthalmology. He joined the Washington faculty in 1967 and has been medical director of the Lions Eye Bank at the University Hospital for more than a decade. His research interests are ophthalmology education, eye problems of premature infants and diseases of the retina.

1970s

Dr. Steven Park, '78, an Ely native, will join the Ely Medical Center on Sept. 1. He was a resident for three years at the Duluth Family Practice Center.

Dr. Scott Burns, '78, started practicing in July at the Pequot Lakes Family Medical Center after completing his residency in Duluth.

Dr. Larry Okerlund, '80, joined the Slayton (Minn.) Clinic in family practice after completing his internship at McKennan Hospital, Sioux Falls, S.D. He participated in the Rural Physicians Associate Program at the University of Minnesota.

Dr. Linda C. Johnson, '78, has joined Drs. Kenneth V. Hodges, Duane C. Olson and David W. Grube in family practice in Edina, Minn. She was a resident at the Hennepin County Medical Center, Minneapolis. Dr. Johnson was graduated from St. Mary's College, Winona, and received a Rotary Fellowship to the Australian National University.

Dr. Kevin Bailey, '78, after serving a family practice residency at the University Hospitals, Fairview Hospital and St. Mary's Hospital, has joined the Fridley Medical Center.

Dr. Ron Wiisanen, '78, Moorhead, has joined the staff of the Valley City Clinic. His residency was at the University of North Dakota Medical School in Grand Forks. Dr. Wiisanen was a student at University of Minnesota-Duluth School of Medicine.

Dr. Timothy J. Miller, '78, following a three-year family practice residency at Methodist Hospital, St. Louis Park, has joined the New Prague Medical Clinic, where he had spent a month of residency. He was in the Rural Physicians Associate Program in Redwood Falls for a year.

Dr. Duane R. Bartels, '78, who did his family practice residency at St. Paul-Ramsey Hospital, has joined the Waseca Clinic.

Dr. John P. Halfen, '75, a St. Paul native, is with the Clarissa Medical Center in Clarissa. He completed his family practice residency in 1979.

Dr. Thomas Haas, '76, has joined the North St. Paul Medical Center in family practice. He was a resident at St. John's Hospital.

Dr. Nathan W. Goff Jr., '76, after leaving Minnesota in 1976, was a surgery intern at Maricopa County Hospital, Phoenix, and a medicine intern in 1977. After passing his board examinations in 1980, he joined the staff of the Veterans Administration Hospital in Prescott, Ariz.

Memory Honored

Mercy Medical Center in Anoka on Sept. 9 dedicated the Bunker Memorial Auditorium, named after Dr. Bevan W. Bunker, a 1932 graduate of the University of Minnesota Medical School. Bunker was a charter member of the medical staff and chief of staff at Mercy Medical Center from 1970 to 1971. He was a charter member of the medical staff at North Memorial Medical Center in the early 1950s.

Dr. Bevan W. Bunker

In Memoriam

Meyer S. Belzer, M.D.

Dr. Meyer S. Belzer, 73, St. Louis Park, Minn., who graduated from the University of Minnesota Medical School in 1931, died on Aug. 27. He was in general practice for many years at the Belzer Clinic, which he established in the 1930s, and in recent years specialized in geriatrics.

Belzer was on the staff of Fairview Hospital for 45 years where he was chief of staff in 1966. He was instrumental in including Fairview Hospital in the University family practice program. He received the American Medical Association's Distinguished Physicians Recognition Award in 1979.

Dr. Belzer served in World War II as a colonel and was awarded the Legion of Merit, Bronze Star, French Croix de Guerre and Belgian Croix de Guerre and Palme.

Robert J. Christianson

Robert J. Christianson, 72, a trustee and the secretary of the Board of Trustees of the Minnesota Medical Foundation, died Nov. 11. He was a long-time partner in the Minneapolis law firm of Faegre & Benson and an attorney for the Minneapolis Star and Tribune Co. for more than 30 years.

Christianson, who was born in Robbinsdale, was the son of former three-term Minnesota Gov. Theodore Christianson and Ruth Donaldson Christianson. His brother, Theodore Christianson Jr., who died in 1955, was a justice of the Minnesota Supreme Court.

Christianson was a graduate of the University of Minnesota and the University of Minnesota Law School and was president and editor of the Minnesota Law Review in 1933–34. He also was elected to the Order of the Coif.

He was a retired director of the Northwest Bancorporation and the Minnesota Title Insurance Co. At the time of his death, he was a director of the Red Wing Shoe Co., the Durand Canning Co., the Faribault Canning Co., Buhler-Miag Co., and the Minneapolis Club.

Herman J. Moersch, M.D.

Dr. Herman J. Moersch, 86, a 1921 graduate of the University of Minnesota Medical School, died Nov. 23 in Rochester. After an internship in St. Paul, he studied at the Mayo Graduate School of Medicine as a fellow in medicine and in 1925 he received his M.S. degree in medicine from the University of Minnesota.

Moersch, a member of the Mayo Clinic staff from 1926 to 1960, was named head of a section of medicine in 1938 and in 1948 was appointed chairman of two sections of medicine concerned primarily with chest diseases. He was elected president of the staff of Mayo Clinic in 1956 and president of the American College of Chest Physicians. He also was president of the American Broncho-Esophagological Society in 1951, the American Gastroscopic Society in 1947 and the Minnesota Trudeau Society in 1943.

George W. Snyder, M.D.

Dr. George W. Snyder, 93, a 1912 graduate of the University of Minnesota Medical School, died Nov. 21. After four years with the Army Medical Corps, he practiced in St. Paul from 1921 to 1929.

Dr. Snyder was the director of the School of Hygiene in the Department of Education of St. Paul from 1940 to 1960, returning to private practice until retirement in 1970. He was a charter member of the Minnesota Public Health Conference and was president of the American Legion Hospital Association in 1958.

Herbert S. Strait, M.D.

Dr. Herbert (Skip) S. Strait, 48, Fridley, a 1959 graduate of the University of Minnesota Medical School, died Sept. 23. He started in family practice in Waconia before establishing the Fridley Medical Center in 1963.

Strait was a charter staff member of Unity Hospital, where he was chief of staff in 1968 and helped establish continuing medical education for the medical staff. He also started the Loving Hands new born baby massage program at Unity Hospital in 1976.

He is survived by his wife, Rebecca; a daughter, Mrs. Byron Bacon, Overland Park, Kan.; two sons, Kevin, Fridley, and Brian, Park City, Utah; and his parents, Mr. and Mrs. Herbert G. Strait, Sun City, Ariz.

Continuing Education

Feb. 3–4, Topics in Geriatric Medicine: Drug Therapy Symposium, Earle Brown Center, St. Paul.
Feb. 25–26, Practical Otolaryngology, Sheraton-Ritz Hotel, Minneapolis.
March 4–6, Cardiopulmonary Medicine, Radisson Plaza, St. Paul.
March 11–12, Current Concepts in Perinatal Medicine, St. Paul Ramsey Medical Center.
March 25–26, Psychiatry for Primary Care Physicians, Health Sciences Unit A 2-530.
March 26, Recurrent Lung Disease in Childhood, Hyatt Regency Hotel, Minneapolis.
April 19–20, Correction of Aphakia, Holiday Inn, Minneapolis.
April 29–May 1, Allergy and Clinical Immunology, Mayo Memorial Auditorium.
May 3–5, International Conference on Tissue Specific Antigens, Hyatt Regency.
May 5–6, Human Aging V, Mayo Memorial Auditorium.
May 7, Medical Directors Spring Meeting, Mayo Memorial Auditorium.
May 10–14, Family Practice Review: Update 1982, Holiday Inn, Minneapolis.
May 19–21, Current Concepts in Radiation Therapy, Mayo Memorial Auditorium.
May 24–25, Topics and Advances in Pediatrics, Mayo Memorial Auditorium.
May 26–28, Biotechnology Symposium, Mayo Memorial Auditorium.
June 2–4, Coronary Heart Disease Workshop, Spring Hill Center, Wayzata.
June 9–11, Musculoskeletal Tumors, Sheraton-Ritz Hotel.
June 11–12, Clinical Hypnosis, Earle Brown Center.
June 14–16, Advances in Vascular Surgery, Willey Hall Auditorium, Minneapolis.
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Home Care for Dying Children


Scene from film, "A Time to Come Home."

Each year, thousands of American families face the numbing crisis of childhood cancer. While encouraging advances in treatment have been made, the crisis takes on new proportions for some 3,000 families annually when curative procedures are exhausted and efforts must turn from curing to providing comfort for the dying child.

Considering the vast array of medical and social support systems available for cancer patients, it is surprising to learn that the most effective setting for this care may be the most simple — the family home. This concept, backed by University of Minnesota research, is explored in a new documentary film, "A Time to Come Home."

Initiated and directed by Minneapolis-based film maker Ken Greer, the 26-minute film stems from the work of University nursing researcher Ida Martinson, the director of a pioneering home care program for children with terminal cancer.

Martinson's interest started with the death of her father-in-law, whose wish to die at home was honored by the family. Suspecting that death at home was more dignified and meaningful than an isolated, institutionalized death would have been, Martinson began studying the home care concept in 1972 to determine its application to families with dying children.

In 1976, with a National Cancer Institute grant, Martinson initiated an on-going home care program which has since involved about 60 families and three institutions — University Hospitals, Minneapolis Children's Hospital and the St. Louis Park Medical Center.

Drs. John Kersey and Mark Nesbit, University pediatric professors, helped support Martinson's efforts in developing the concept. Kersey worked jointly with Martinson on setting up the first home care environment for one of his patients. "This was probably the first of its kind in the country," said Martinson. Both Kersey and Nesbit helped pave the way for acceptance of this idea at the University by speaking to their peers about this idea.

Even though the grant has been completed, home care for dying children has been incorporated as an ongoing program within the University's Department of Home Health Services at U Hospitals.

Two of these families whose sons have died of cancer are introduced in the film along with another family and their eight-year-old son Jeremy who is dying of cancer. The parents discuss their reactions to the prognosis of their cancer-stricken children as well as their experiences with caring for their child at home. Also introduced are Martinson, her University colleague pediatrician John Kersey, and their objectives with the home care concept.

But the focus is on the feelings of the parents, feelings which Martinson hopes are positive enough to dispel doubts about death at home — an odd, uneasy notion to 20th century American culture.

None of the parents in the film, and few others who have chosen the home care program, have regretted their decision, Martinson said. Home care, they say, allowed the child to receive the needed security and love stemming from the home while allowing the parents to derive inner satisfaction from fulfilling their child's wish to remain at home.

The strength of the home, Martinson said, is the interpersonal relationships that have already been established. A child in the final stages of a disease begins to cut off relationships with all but those closest to him. Despite their best efforts, hospital staff members may no longer be able to reach that child.

The feelings the child associates with separation from home and family have been likened to "little deaths," and are similar to the feelings anyone has when turning points are encountered and old connections broken.

The phenomena gives the film, primarily designed to acquaint doctors, nurses and parents with the home care concept, a more universal appeal, suggests director Greer. "If anyone close to you has ever spent time in a hospital, you can relate to it," he said.

One of Martinson's most satisfying discoveries in studying the home care concept is its feasibility. "It's fantastic how much parents are able to do in giving pain medication and handling the routine aspects of nursing care at home," she said.

Toward this end, parents in the program are assisted by home care nurses who make periodic visits to the home to help with medical matters and are always on call for phone consultations and emergency visits.

Some of the rewards of this model include better communication and closeness between parent and child, reaffirmation of the parents' role in caring for their child, and maintenance of a more normal home environment that enables siblings to share in this experience.

Martinson feels that about 80 percent of the 3,000 American youngsters who die each year of cancer are good candidates for such care. She is now helping to establish home care programs in other parts of the country, and is heartened by the growing interest given the concept by insurance companies, which have long been reluctant to cover home care costs.

"A Time to Come Home" will aid these efforts toward asserting the strength of the family, she said. Produced with a $5,000 grant from the General Mills Foundation, the film is now being distributed nationally by the American Journal of Nursing and locally by the Media Resources Division of the University's Physical Medicine and Rehabilitation Department. The rental fee is $35. For information contact Ed Monohan, 860 Mayo, Box 297, University of Minnesota Hospitals, Minneapolis, Minnesota 55455.

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Frozen Mirage

By Joel Marc Frankel

The deep beauty of your eyes
reflects a hidden scene
as I gaze into them.

I see my mirror image
shine as I look beyond
the obvious reflections,
seeking the ones farther
within my fantasies.

My eyes now focus
on the lake at dusk
as the soft porch lights
flicker across
the newly frozen ice.

Off in the distance
I hear cathedral bells
ringing their impatient song
over and over.

I begin to walk
toward the lights,
and see your shadow
on the empty lake.

Even from a distance,
I feel your presence
amid the frozen night.

Then all at once
I am upon you.

Your face is rose
from the chill of winter's touch,
and your soft hair
blows gently skyward.

As we reach for each other
I feel our warmth
kindle the flame,
and shelter us from cold
within our loving embrace.

Our hands meet
as we begin to walk
in silent mystery.

Our intent seems aimless now
as we experience the peace
of God's night
filling our souls.

Misty emotions I see within
as you reach for the wonder
of a heart that beats
for you in pure dream.

Winter has indeed come
and what has been
will not end.

For within each other's gaze
our need and wants are fulfilled
in righteous strength.