

A Common Mental Illness with Mysterious Causes

by A S M Nurunnabi

There is a kind of mania which finds expression in its victims in several forms. The most widespread one is the constant and extreme concern for washing. It exercises a sort of compulsion, which often stems from obsessive fears of contamination. Many victims will spend all day scrubbing.

Another common form is the penchant for checking. Under its influence, the victims check doors and oven knobs almost incessantly, never quite able to trust their senses. In still another form, the victims display an extreme urge for fastidious order. Most compulsives partake of one or more of those forms, though they are apt to put their own unique twists on them.

In psychiatric terms, this peculiar affliction is called Obsessive Compulsive Disorder (OCD). No statistics are available as to extent of incidence of this malady, but it is estimated that the number may run into thousands. The numbers remain uncertain because the victims tend to hide the problem.

One of the oddest things

about OCD, indeed, is the relative normalcy of its victims. They know their behaviour is crazy and this knowledge is one of the most painful aspects of their ailment. We all work with these people — they are everywhere.

Doctors do not really know why anyone falls prey to OCD or why it takes different forms with different individuals.

The pattern of such behaviour is a sort of obsession. In simple terms obsessions are usually defined as unwanted thoughts, compulsions as unwanted actions. In our day-to-day life, there are many unpleasant things we think or do. But that scarcely suggests the beginning of OCD or its often devastating effects on its victims and their families.

Most people experience mild compulsions, such as returning to the house to make sure that the door is locked. It is only when the habit begins interfering with their ability to function that it becomes a dis-

order. At the extreme, OCD is a type of behaviour caught in a loop, doomed to repeat itself unceasingly.

A couple of instances may be cited to show how the malady operates. In one case, a woman in her late 40s was

of their waking life, they had no idea where they came from or why plagued them so.

According to a noted American psychiatrist, the mindlessly repetitive rituals suggest nothing so much as the nesting and grooming

spending up to 13 hours a day washing her hands and her house. The ritual she went through was harrowing. Before she could use the soap, she had to use some bleach on the soap to make sure the soap was clean. This process went on and on. If she happened to bump the edge of the sink while doing this, it would set off another chain of rituals.

In another case, a young man was unable to rid himself of a feeling of "stickiness" despite three hours a day in the shower.

Though these painful rituals were taking a substantial part

of their waking life, they had no idea where they came from or why plagued them so.

That might explain why standard psychotherapy has been largely unavailing against OCD, though in some cases the disorder has proved amenable to the blunt intervention of behaviour modification — dirtying a patient's hands, for example, and then preventing him from washing for an hour.

Lately, according to a finding OCD has responded to a potent anti-depressant called Clomipramine that seems to

affect the action of one of the brain's key chemical messengers, Serotonin.

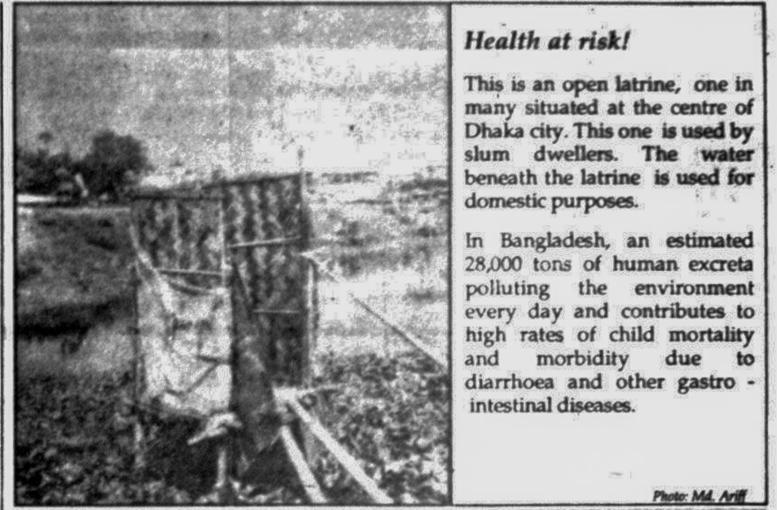
Though the drug does not help everyone, it has been found that in cases where it does, it appears to erase compulsions that patients used to suffer from all their lives. In some other cases, a combination of drug treatment and behavioural therapy has been found helpful.

Doctors do not really know why anyone falls prey to OCD or why it takes different forms with different individuals.

But biology is beginning to provide some clues in treatment: some patients are usually astonished to learn that there are others who have the same problem they have kept so desperately secret.

OCD takes identical forms even in different cultures, which is one of the arguments for a common biological cause. There is also strong evidence of a genetic link in the disorder.

A survey showed that about 25 per cent of victims have at least one close relative with OCD. It hits men and women about equally.



Health at risk!

This is an open latrine, one in many situated at the centre of Dhaka city. This one is used by slum dwellers. The water beneath the latrine is used for domestic purposes.

In Bangladesh, an estimated 28,000 tons of human excreta polluting the environment every day and contributes to high rates of child mortality and morbidity due to diarrhoea and other gastrointestinal diseases.

Photo: Md. Arif

Mind Control

The "Silva Method"—An Isometric View

by R N Sanyal

"Mind Control" is a process by which a man can control his own mind through a system of meditation and visualization exercises. This benefits health, self-awareness, memory, and other personal achievements. "Mind Control" means disciplining of the mind. All of us accept that an uncontrolled mind is always destructive. To be creative, we must establish control over our mind. It is experimentally proved that most of us utilize only ten per cent of our brain. The majority of humanity use very much less and often not very productively. The aim of "Mind Control" is to cultivate a way of practice by which we can utilise the brain more effectively.

Among animals, the human brain has potentials too and that people should be given an opportunity to capitalise on this potential for the betterment of themselves. In psychology there is hypnosis, hypno-analysis, Para-psychology and another term extra sensory perception. Nowadays a treatment known as electroencephalography which has been introduced, and which means the use of electronic equipment (like oscilloscope) for detecting and measuring the amplitude and frequency of brain waves. It is found that those who are termed as "geniuses", they are obviously constructive and creative people.

The brain generates electricity and it emits faint electrical impulses identified with different states of consciousness. We could say it pulsates like the heart, but whereas the heart's pulsations are measured in pulses per minutes, the brain's are measured in pulses per second.

There are four different states of awareness of the faint electrical impulses of the brain. These are Beta, Alpha, Theta and Delta. Beta state shows 14-40 cycles per second (cps) produces the highest frequency waves. It is associated with sight, sound, smell, taste and touch. It is waking state referred to in mind control as the outer conscious level. It represents the physical world.

Alpha is a state where (7-14 cps) the level associated with

meditation, day dreaming. It is referred to in mind control as the inner conscious level of the spiritual world. Theta state 4-7 cps associated with inner conscious level on the borderline of sleep. This level is used for painless surgery, dentistry, childbirth and so on. Delta is the last state when 1-4 cps products become the unconscious level. And it is the brainwaves of deep sleep.

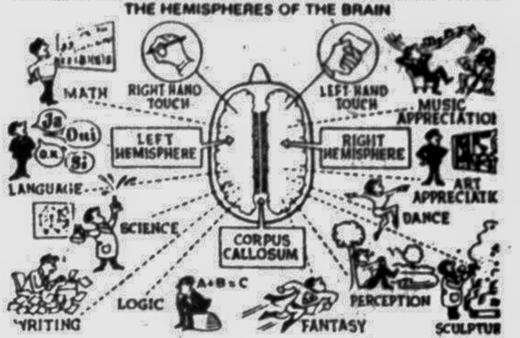
Realising from my work in electronics that the ideal circuit is the one with least resistance, the question emerges here as: can we impress information on brain cells where the brain frequency is the strongest, i.e. when it functions in its most energetic and synchronized manner?

Secondly, will we be able to memorise and recall that information better? The ten-cycle brain frequency is strongest among all others. We estimated that if we can use this, we would be able to increase the intelligence quotient, the IQ factor at this level are impossible to increase. The first step is to find the way of slowing the brain activity and maintaining awareness. We thought hypnosis would be a major tool in achieving a lower brain frequency. But the result is not as expected.

The word "psychosomatic" stands for "of mind and body" — "psyche" meaning mind, and "soma" meaning body. If brain functions at 10 cps, the body appears to speed up its healing process. This shows that a man who learns to function at ten cycles can enhance his im-

munological mechanism to prevent, eliminate or minimise the psychosomatic influence.

A question may arise here: from where did intuition come into his scheme of things? We know that somebody is born with a heightened sense of it and most of us come to this earth with very little, and there is nothing we can do to enhance it. The term intuition is considered to be a survival mechanism that keeps us out of trouble, and helps to bring about what we call "good luck" because we intuitively, do the right thing at the right moment. Without information we cannot solve problems. Again the ability to solve problems is directly proportional to our



success or failure. "Mind Control" is dynamic meditation. We have to think and analyse the problems at ten cycles, using visualization and imagination. It enables us to draw on senses and faculties other than five physical senses. Yoga and similar meditative disciplines are forms of meditation which go to deeper level of mind — to Theta, which is five cycles per second.

Five cycles is the centre of biological intelligence, it is possible to gain control over the involuntary system of the body. At ten cycles, we can learn not only to control and regulate these same involuntary systems but we gain control over our psychological systems also. "Mind Control", unlike any other meditative discipline, teaches us to have control over our mind at any level of the conscious or subconscious levels.

Palm Oil Does Not Raise Blood Cholesterol

by Kalyana Sundram

SINCE 1916, epidemiological studies on diverse populations from all over the world, have shown a highly significant correlation between daily consumption of saturated fats, cholesterol and mortality from coronary heart diseases (CHD).

These studies suggested a significant positive correlation between the consumption of animal and dairy products and mortality from CHD. The human diet, made up of the major classes of foods, i.e. proteins, carbohydrates and fats, is extremely varied and complex. Of these components, dietary fats have been extensively researched upon for their effects on coronary heart diseases and certain types of cancers.

Fats in the diet are available as fatty acids with are further classified as saturates, monounsaturates and polyunsaturates. As long as total energy intake from fats is approximately less than 30 percent, there seems to be little problem for the human metabolic process to handle the daily fat load. On the other hand, high fat diets contributing more than 40 percent, and which are a norm in most Western diets, pose tremendous potential to enhance the incidence and subsequent mortality from CHD.

Risk factors for CHD that may be influenced by diet are elevated levels of serum total cholesterol, low density lipoprotein cholesterol (LDL-C), serum triglycerides and reduced levels of high density lipoprotein cholesterol (HDL-C).

These risk factors are readily modulated by the fat content in the diet. A high intake of saturated fatty acids and cholesterol in the diet may lead to hypercholesterolemia, largely through an increase in LDL-C. On the other hand, polyunsaturated fatty acids have a hypocholesterolemic effect in humans. However, a large number of studies contributing to the polyunsaturated hypothesis involve not only an increase in the polyunsaturated fat intake but also a reduction in saturated fat consumption which are in-turn related to their contribution as

the percentage of energy intake.

Hence, in a low-fat diet, an increase in polyunsaturated/saturated fatty acid ratio from 0.4 to 0.9 was shown to be unable to change the LDL-C concentration. Recent evidence suggests that the monounsaturates long regarded as



THE ROLE OF PALM OIL

neutral in their effect on serum and lipoprotein cholesterol have been shown to have a cholesterol lowering potential.

The consumption of saturates and monosaturates, the source of the saturated fatty acids, has now become a major topic of deliberation today. Without doubt, the single largest source of saturated fat intake in the Western diet is from animal sources which also contain appreciable amounts of

cholesterol.

The so called tropical oils, coconut oil and palm kernel oil, are also high in saturates (90% saturated). Palm oil which has often been vilified by health fanatics is actually unique in its fatty acid composition containing 45% saturates (40% palmitic, 5%

of a palm oil diet is discussed below.

Effect on Serum Lipids and Lipoproteins

Evidence from both animal models and human studies now indicate that palm oil does not behave like a saturated fat in its effect on serum and lipoprotein lipids. Kristetherton et al., demonstrated that feeding a palm oil diet to rats did not raise plasma cholesterol in comparison to a highly polyunsaturated corn oil diet.

Similarly Sugano et al., were unable to establish significant differences in plasma cholesterol in rats fed a palm oil diet compared to other polyunsaturated oils. In a more recent study, Sundram et al., compared the effect of palm oil and its fractions with two commonly used polyunsaturated oils namely soyabean and corn oil.

It was demonstrated that palm oil feeding did not elevate plasma cholesterol, whereas HDL cholesterol tended to be raised on the palm oil diet relative to the corn oil diet. Similar observations have also been recorded in other animal models including the rabbit, chicken and hamsters.

These effects of palm oil on serum lipids and lipoproteins recorded in the animal models, have similarly been observed in several human studies. In some early human studies, it was reported that subjects on a palm oil diet had elevated plasma and LDL cholesterol levels compared to a diet containing a polyunsaturated or monounsaturated fat.

However, these and other relevant studies were critically re-assessed recently, and the data revealed that plasma cholesterol levels after the palm oil period were actually lower than at the point of entry of the experiments when the subjects were on their habitual diets.

In order to evaluate the true effect of palm oil, Sundram et al performed a dietary intervention trial in a free living European (Dutch) population, consuming a diet that was traditionally high in fat content. The habitual fat intake of this population was maximally replaced with palm oil (upto 70% replacement), and the consequence of this fat replacement was carefully monitored over an experimental duration of 18 weeks using a double blind cross-over design.

Compared to a Western diet, a palm oil diet did not raise serum total cholesterol and LDL-cholesterol. Maximum substitution with palm oil, however, resulted in a tendency to elevate the beneficial HDL-cholesterol while significantly lowering the triglyceride content in the atherogenic low-density lipoprotein fraction.

The apolipoproteins (apo A1 and apo B), which are increasingly being recognized as a better indicator of atherogenic risk, were also regulated by the diet wherein a net beneficial effect was noted on consumption of palm oil.

It was concluded that palm oil, when used to replace the habitual fat content in a Western diet, had no deleterious effects on serum or lipoprotein cholesterol and triglyceride levels. In contrast, the use of palm oil caused a slight improvement of the cardiovascular risk indicators associated with lipoproteins and apolipoproteins.

In a parallel experiment in Malaysia, diets containing palm olein, corn oil and coconut oil were compared for their potential to modulate serum cholesterol levels. When volunteers were switched over from a coconut oil diet to a palm olein or corn oil diet, serum cholesterol dropped by 36 mg/dl and 51 mg/dl respectively.

Hence a reduction in serum cholesterol was observed on administering a palm olein or corn oil diet relative to a coconut oil diet. A similar hypolipidemic effect of palm oil was also observed in a human study conducted in Pakistan, comparing palm oil with butter, vanaspati and hydrogenated cottonseed oil.

Mechanism for the Cholesterol Lowering Potential

It has long been established that the cholesterol raising potential of the saturated fatty acids is variable. Thus, it has repeatedly been shown that stearic acid does not raise serum cholesterol. The major saturated fatty acid in the human diet as well as in palm oil is, however, palmitic acid which together with lauric and myristic acids are considered hypercholesterolemic. Hayes et al., recently re-examined this hypothesis in non-human primates (monkeys), using dietary fats containing predominantly lauric and myristic acids (coconut oil) or palmitic acid (palm oil). It was established that compared to both lauric and myristic acids, diets containing palmitic acid were actually neutral in their ability to raise both serum and LDL cholesterol.

Considering that the major saturated fatty acid component in palm oil is palmitic acid, Hayes may have actually stumbled on a possible mechanism explaining the observed serum cholesterol lowering potential of a palm oil diet. His results were further enhanced at the molecular level when he demonstrated that the palm oil diet increased the number of RNAs facilitating increased receptor activity for the clearance of the atherogenic low density lipoprotein cholesterol.

Another explanation for the lack of a hypercholesterolemic effect of palm oil, may reside in the content of vitamin E in palm oil which is uniquely represented as tocotrienols rather than as tocopherols. Tocotrienols isolated from barley and palm oil have been shown to inhibit cholesterol synthesis through its inhibitory action on HMG-CoA which is the first rate limiting enzyme of cholesterol synthesis.

In several animal studies using tocotrienol rich fractions isolated from palm oil, both serum total and LDL-cholesterol dropped significantly. This effect was especially enhanced in swine that were genetically hypercholesterolemic.

These tocotrienol fractions are now available in a relatively pure form and PORIM has developed tocotrienol rich capsules (Palm Vitec) for a series of human trials. Preliminary results from these Palm Vitec capsules have been most encouraging.

Both serum total cholesterol and LDL-cholesterol were significantly reduced in volunteers consuming these Palm Vitec capsules. The reduction in cholesterol was especially amplified in hypercholesterolemic volunteers. Further

studies are presently in progress.

Emerging evidence

Current recommendations are to reduce fat consumption to less than 30 percent. This however is already the norm in most developing countries including Malaysia.

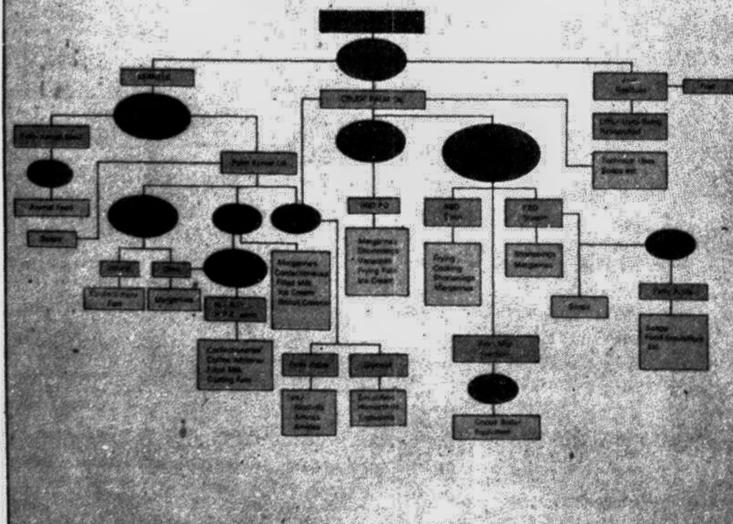
The preferred fatty acid composition of the diet is a balance between the saturates, monounsaturates and polyunsaturates in the ration 1:1:1. No single oil is able to provide this desirable fatty acids composition and therefore a healthy diet must actually be a mix of various fatty acid sources.

The emerging evidence for palm oil is indeed encouraging with respect to its effects on serum lipids, lipoproteins and overall cardiovascular risk. There is yet no evidence to suggest any deleterious effect of palm oil consumption. On the contrary the evidence suggests that palm oil has the ability to increase the beneficial high density lipoprotein cholesterol in both animal and human models. Polyunsaturated oils on the other hand tend to cause a reduction of this component.

Palm oil does not contain trans fatty acids and the evidence is that it is a perfectly wholesome and nutritive edible oil whose consumption should not pose any risk to cardiovascular health.

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PALM OIL UTILISATION CHART



No Excuse...

HALF A MILLION WOMEN DIE EACH YEAR AS A RESULT OF PREGNANCY AND CHILD BIRTH.

BETWEEN 25 AND 40 PERCENT OF THESE MATERNAL DEATHS CAN BE PREVENTED IF WOMEN CAN CHOOSE TO AVOID UNWANTED OR POORLY PLANNED PREGNANCIES.

IN MANY CASES, THEY CANNOT MAKE THAT CHOICE.

PART OF THE PROBLEM IS THAT, IN COUNTRIES WHERE WOMEN'S STATUS IS LOW, THEY ARE CONSIDERED EXPENDABLE, LITTLE ATTENTION IS GIVEN TO THEIR HEALTH OR THEIR NUTRITION.

MATERNAL AND CHILD HEALTH SERVICES ARE THE MOST IMPORTANT CHANNELS FOR FAMILY PLANNING, AND YET THEY TYPICALLY GET LOW PRIORITY IN NATIONAL BUDGETS.

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