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A not-so-happy picture is the essence of a recently released National Crime Record's Bureau report for 2009, Malathy Iyer, TNN Feb. 12, 2011, 02.40 am IST MUMBAI: Every hour, 15 people kill themselves in India. One in every three victims is aged between 15 and 29 years. Worse, the family is the trigger in about a quarter of the countries' surveyed 1 lakh suicides annually. National toll increased by 6%. It is just a very small, but grim picture of our society's dark side. Cases of depression are more than ever increasing and we have to be very responsive without any further delay. Let us clear our concept and take remedial action to resist the alarming condition of depression.

What is Depression? **The word "depression":* The term depression itself was derived from the Latin verb *deprimere*, "to press down". From the 14th century, "to depress" meant to subjugate or to bring down in spirits. It was used in 1665 in English author Richard Baker's Chronicle to refer to someone having "a great depression of spirit", and by English author Samuel Johnson in a similar sense in 1753. The term also came in to use in physiology and economics. An early usage referring to a psychiatric symptom was by French psychiatrist Louis Delasiauve in 1856, and by the 1860s it was appearing in medical dictionaries to refer to a physiological and metaphorical lowering of emotional function. Since Aristotle, melancholia had been associated with men of learning and intellectual brilliance, a hazard of contemplation and creativity. The newer concept

abandoned these associations and through the 19th century, became more associated with women.

**Symptoms:* Depression is a serious mood disorder or feeling miserable and dissatisfied. It can take different forms, but is typically characterized by feelings of sadness, helplessness, hopelessness, and worthlessness. People with depression may describe feeling empty, angry, aggressive, or restless. Symptoms of depression include chronic fatigue syndrome, insomnia or sleeping frequently and for excessive periods of time, loss of appetite or a ravenous appetite, headaches, backaches, colon disorders, and feelings of worthlessness and inadequacy. Many think of death and consider suicide. Feelings of sadness are a normal reaction to life's problems or disappointments. But if sadness lasts longer than two weeks and affects your work, studies, or day-to-day activities, it may represent a medical condition called depression. People may not realize that depression can cause physical symptoms such as aches and pains, sleep problems (insomnia) and a change in

appetite. Some people do not admit anger, sadness or guilt; instead they withdraw and hide from society. They lose interest in things around them and become incapable of any pleasure. Things appear bleak and time passes slowly for them. They are typically angry and irritable. They often try sleeping off their depression or do nothing, but sit or lay around. Seasons also affect people as it is observed that people become more depressed in the winter when days are shorter and darker. The sun and bright light seem to trigger a response to a brain hormone known as melatonin (produced by the pineal gland). Depression can begin at any age. Symptoms may

start gradually over several weeks or months but can also appear suddenly. Depressive disorders are a huge public health problem, due to its affecting millions of people. About 10%

"DEPRESSION"-

A Psychological & Biological Concept and Remedies

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adults, up to 8% teens and 2% pre-teen children experience some kind of depressive disorder. Adolescents who suffer from depression are at a risk for developing and maintaining obesity. In a major medical study, depression caused significant problems in the functioning of those affected more often, than did arthritis, hypertension, chronic lung disease, and diabetes, and in some ways as often as coronary artery diseases, asthma, and many other medical illnesses. Other complications of depression include its tendency to increase the morbidity (illness/negative health effects) and mortality (death) from these and many other medical conditions. (Psychosomatic problem). Depression can coexist with virtually every other mental health illness, aggravating the status of those who suffer the combination of both depression and other mental illness. Depression in the elderly tends to be chronic and has a low rate of recovery, and is often undertreated. This is of particular concern given that elderly men, particularly elderly white/fair men have the highest suicide rate.

***Causes of Depression:** American psychiatrist Aaron T. Beck, following on from the earlier work of George Kelly and Albert Ellis, developed the theory best known as a cognitive model of depression. He proposed that three concepts underlie depression: 1. A triad of negative thoughts composed of cognitive errors about oneself, one's world, and one's future; 2. Recurrent patterns of depressive thinking, or schemas; and 3. Distorted information processing. Another American psychologist Martin Seligman said, "Depression in humans is similar to helplessness in laboratory animals, which remain in unpleasant situations when they are not able to escape." According to Albert Bandura, a Canadian social psychologist associated with social cognitive theory, depressed individuals have negative beliefs about themselves, based on experiences of failure, observing the failure of social models, a lack of social persuasion that they can succeed, and their own somatic and emotional states including tension and stress. These influences may result in a negative self-concept and a lack of self-efficacy; that is, they do not believe they can influence events or achieve personal goals. Depression begins with a disturbance in the part of the brain that governs moods. Most people can handle everyday stresses; their depression may be caused by tension, upset stomach, stress, headache, nutritional deficiencies, poor diet, sugar mononucleosis, thyroid disorders, any serious physical disorder, or allergies, bodies readjust to these pressures. When stress is too great for a person and his adjustment mechanism is unresponsive, depression may be triggered. A number of psychological and social factors can also lead to an increased risk of depression among women, including family and social responsibilities, stress from increased expectations of women, and increased rates of physical and sexual abuse. An examination of depression in women indicates that vulnerability factors—such as early maternal loss, lack of a confiding relationship, responsibility for the care of several young children at home, and unemployment—can interact with life stressors to increase the risk of depression. For older adults, the factors are often health problems, changes in relationships with a spouse or adult children due to the transition to a caregiving or care-needing role, the death of a significant other, or a change in the availability or quality of social relationships. Social and family factors are also causes of depression. Faulty thought development can be a reason of depression in later life. Big aspiration without practical knowledge not fulfilling,

constant uncertainty of future, rejection, neglect or injustice from society, authority, person or family members and relatives can be rigid reasons for depression. Unemployment, single status (mainly for ladies) also creates to some extent a sense of depression. Corporate culture at work place with tremendous time bound pressure is one of the main reasons for depression among the corporate sector people. Depression may also occur along with other psychiatric disorders such as schizophrenia, anxiety, and attention-deficit hyperactivity disorder (ADHD) and panic attack etc.

***Anxiety and Depression:** "Almost all depressed men are anxious, but not all anxious men are depressed." This means that certain core symptoms of depression are not found in anxiety. Recently, on-going research has identified symptoms that seem central to panic and anxiety. In panic, the symptoms reflect primarily autonomic activation (excessive psychological symptoms such as heart palpitations, dizziness); muscle tension and apprehension (excessive worrying about the future) seem to reflect the essence of anxiety. Many people these days suffering from depression also have symptoms of anxiety or panic. More important, a large number of symptoms help define both anxiety and depressive disorder. Because these symptoms are not specific to either kind of disorder, they are called symptoms of negative effect.

Horizontal affect for depression, "serotonin": Serotonin acts as a neurotransmitter, a type of chemical that helps relay signals from one area of the brain to another. Although serotonin is manufactured in the brain, where it performs its primary functions, about 90% of our serotonin supply is found in the digestive tract and in blood platelets.

• How is serotonin made?

Serotonin is made via a unique biochemical conversion process. It begins with tryptophan, a building block to proteins. Cells that make serotonin use tryptophan hydroxylase, a chemical reactor which when combined with tryptophan, forms 5-hydroxytryptamine, otherwise known as serotonin.

• What role does serotonin play in our health?

Serotonin a neurotransmitter, helps to relay messages from one area of the brain to another. Because of the widespread distribution of its cells, it is believed to influence a variety of psychological and other body functions. Of the approximately 40 million brain cells, most are influenced either directly or indirectly by serotonin. This includes brain cells related to mood, sexual desire and function, appetite, sleep, memory and learning, temperature regulation, and some social behaviour.

In terms of our body function, serotonin can also affect the functioning of our cardiovascular system, muscles, and various elements in the endocrine system. Researchers have also found evidence that serotonin may play a role in regulating milk production in the breast, and that a defect within the serotonin network may be one underlying cause of SIDS (Sudden Infant Death Syndrome).

• What is the link between serotonin and depression?

There are many researchers who believe that an imbalance in serotonin levels may influence mood in a way that leads to depression. Possible problems include low brain cell production of serotonin, a lack of receptor sites able to receive the serotonin that is made, inability of serotonin to reach the receptor sites, or a shortage in tryptophan, the chemical from which serotonin is made. If any of these biochemical glitches occur, researchers believe it can lead to depression, as well as obsessive-compulsive disorder, anxiety, panic, and even

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excess anger. Low Serotonin levels are believed to be the reason for many cases of mild to moderate depression which can lead to symptoms like anxiety, apathy, fear, feelings of worthlessness, insomnia and fatigue. More than 100,000 chemical reactions go on in our brain every second! The brain is also a radio transmitter, which sends out measurable electrical wave signals. In fact the brain continues to send out these signals for as long as 37 hours after death! Among the brain's many jobs, is to be one's own chemist. The brain produces more than 50 identified active drugs. Some of these are associated with memory, others with intelligence, still others are sedatives. Endorphin is the brain's painkiller, and it is 3 times more potent than morphine. Serotonin is a neurotransmitter, involved in the transmission of nerve impulses. Certain amino acids cause one to have better feeling of well-being. Serotonin is a chemical that helps maintain a "happy feeling," and seems to help keep our moods under control by helping with sleep, calming anxiety, and relieving depression. The brain also makes Dopamine, which makes people more talkative and excitable. It affects brain processes that control movement, emotional response, and ability to experience pleasure and pain. All of these chemicals are natural chemicals that affect our bodily processes.

***Is Heredity "a factor for depression"?:** Heredity is a significant factor in depression. Among 50 patients who were suffering from recurrent episodes of depression, it was observed that one or both of the parents were depressives. But the ability to be healthy and happy appears to be related to several simple techniques that are all related to relaxation, exercise, and nutrition. The interesting thing about these techniques is that research is beginning to show us how they impact us at a very basic level—our chemical processes.

***Living with a depressed person :** If relatives or friends are depressed, show that you care by listening sympathetically and being affectionate. Encourage them to decide what they can do to deal with the depression. Get some support for yourself from other family members, depression support groups' carers' group. Take proper guidance from literature/psychologist.

***Anti-depressant Medicine :** In recent years anti-depressants are among the most widely prescribed medications, in spite of their side-effects. The presumption is that a chemically induced sense of well being is better than none. Withdrawal from these medications can be particularly hazardous and must be managed carefully. Scientists have long hunted another way to attack depression.

***Anti-depressant Food :** It has been discovered that some foods influence the brain's behaviour, and the brain's neurotransmitters, which regulate our behaviour, can be affected by what we eat. Research shows that certain food like bananas, eggs, soya beans, chicken have proteins that help to create the chemical serotonin. So, diet may contribute to depression, especially poor eating habits and constant snacking on junk foods. There are many who feel that eating Carbohydrates (Chocolates) under stress is aimed at this serotonin release.

When the brain produces serotonin, tension is eased. When it produces dopamine or nor epinephrine, we tend to think and act more quickly and are generally more alert. Eating carbohydrates alone seems to have a calming effect, while proteins increase alertness. Complex carbohydrates, which raise the level of tryptophan in the brain, have a calming effect. Protein meals containing essential amino acid and/or carbohydrates are recommended for increased alertness. But

avoid food high in saturated fats. A balanced diet contains a combination of these two nutrients, protein and tryptophan and whole wheat bread supplies complex carbohydrates which is important for controlling depression.

Tyrosine is also needed for brain function. This amino acid may be good for those who have prolonged and intense stress. Uncontrollable stress may thereby be prevented or reversed if this essential amino acid is obtained in the diet. Vitamin C is required for conversion of the amino acids L-tyrosine and L-phenylalanine into nor adrenaline. The conversion of tryptophan into serotonin, the neuro hormone responsible for sleep, pain control and wellbeing, also requires adequate supply of Vitamin C, Physical exercise & Morning Sunlight. Exercise has been shown to produce another chemical known as endorphins, which help with depression, anxiety, sleep, and sexual activity.

So a depressed person should do physical exercise at least 30 minutes, both in the morning and evening. Blood circulation and motor activity helps create appetite and good sleep. Research reveals that two hours of morning sun is very effective in lifting depression. The evening light had comparatively lesser results.

Development of thought level - Not just our diet, but our thoughts, emotions, and behaviour all affect body chemistry. For instance, relaxation produces the chemical norepinephrine with which low levels are implicated in depression. Thomas Jefferson wrote that most people feel about as happy as they make up their minds to be. And indeed, a positive attitude is invaluable. Most people have never heard of serotonin management, or even considered it at all except for medications. Serotonin management amounts to paying attention to the little things that make you feel good and systematically including them in your daily routine. We know, instinctively, that pampering ourselves is a door to a sense of well being, but we may not take time to schedule pleasant surroundings, favourite music or food, or even quality time with loved ones into our daily agenda. If you find small things that make you feel good, and do them on a regular or sustained basis, your overall level of happiness is greater than if you fall in love or say win a lottery. Seemingly little things that taste good, smell good, or delight the senses can be very significant when systematically included in your daily routine. Violets for the soul may be one of your best investments, especially if you consider the fact that people who feel good are significantly less likely to be tardy, absent, ill, or involved in accidents of all kinds. Taking time to smell the flowers implies a willingness to be spontaneous. A talent like this one is something that some just have, while others must learn. Make a detailed list of little things that you enjoy and include them in your activities. Actually, schedule a time during the day to go for a walk, create or listen to your favourite music, read a poem, meditate, spend quality time with family and friends, paint, exercise or just play. Make a pact to try it just for a few weeks, and then see if there is an improvement in your overall well-being.

***Overall concept :** Try to be passionate & happy with whatever you have. You may not have a good job, wealth or health. Your son/daughter may not be very good in education or any aspiration may not be fulfilled. Be happy within the constraints. On a daily basis this can save you, your family & transform it into a healthy happy family.

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RAILWAY STAFF COLLEGE, VADODARA CELEBRATES DIAMOND JUBILEE

Background: The Railway Staff College is the apex training and management development institute for the officers of the Indian Railways. The College trains not only newly appointed officers but also senior managers and executives. The college also trains officers of other Group A services of the Government of India besides officers of other organizations, and officers from foreign Railways. The college was founded in 1930 at Premnagar, Dehradun, and then shifted to its present regal sylvan surroundings at Vadodra in 1952. It is housed in the Pratap Vilas Palace (built in 1914 AD) surrounded by lush green lawns and designed by C.F. Stevens in the renaissance style. The property comprising 55 acres (220,000 m²) of garden and wooded land, enlivened by the calls of peacocks and migratory birds, was originally owned by the Gaikwads (erstwhile rulers) of Vadodra.

The College with its vintage name and pristine repute celebrated its Diamond Jubilee on 31st January, 2012. However, the unique identity of the College besides its contribution to the Indian Railways and in nation building has been 'Prastuti', the Palace, the Pratap Vilas Palace, which chiefly house the alma-mater of Railway officers. It would be very hard and even unthinkable to visualise the very existence of the College without the silent yet towering presence of the Palace. Since its foundation the Railway Staff College and the Pratap Vilas Palace have been synonymous. In fact, the Palace has been the soulful image of the whole Indian Railways, a pride, an identity par excellence.

Formerly known as Prince Palace, the Pratap Vilas Palace would witness its centennial birthday on 30th July, 2014. With erection of Gate Lodges and Sub stations its construction was finally completed in the year 1918 with cost Rs. Nine lakh (approx) during the reign of one of the greatest visionary kings of India, His Highness Maharaja Sayajirao Gaekwad II of Baroda. Since then till the year 1939, it witnessed princely life of Pratapsingh Gaekwad, popularly known as Major General Farzand-i-Khas-Daulat-i-Inglishia Shrimant Maharaja Sir Pratapsingh Gaekwad Sena Khas Khas Shamsheer Bahadur, who was coronated as the thirteenth Maharaja of Baroda in the year 1939. As the name implies, the Pratap Vilas Palace was not only the Palace of the Prince, but also a special home of the Gaikwads, where Her Highness Maharani Shrimant Akhand Shabubhagvati Shanta Devi, wife of the Prince came first as a bride in the year 1929, and made it her marital abode. The royal couple's son and the fourteenth Maharaja of Baroda, His Highness Shrimant Maharaja Fatehsingh Gaekwad was born in this Palace on 2nd April, 1930 besides their two daughters.

The Palace constructed on plinth area of 2118.70 sq. meter was planned by Architect Mr Charles Stevens and designed by Mr C.F. Stevens ably supported by Mr A.H.Coyle, Chief Engineer. It is a unique piece of construction in renaissance style. It has European architecture with Indian Carvings, which gives it a



★An attractive view of the Historical Building of Railway Staff College, Vadodra

totally awesome appearance. Originally, its cover area was around 720 acres with many gardens and a golf course. However, since 1952, the foundation year of the Railway Staff College, the Palace property under Railways is spread over 55 acres comprising wooded land and gardens, enlivened by the calls of peacocks and many migratory birds. Even today, one can witness stunning airborne exercise displayed by birds, and listen to their chirping during their home coming in the College campus when the sky turns red with the sun going down the west.

★**Training & Development:** The Indian Railways is a very important segment of the country's transport infrastructure, and is considered as the Lifeline of the country. The Indian Railways have a competent, hard working and highly skilled workforce of about 1.4 million with tremendous potential to excel in almost all the professional areas even on a global basis.

An efficient transport infrastructure is a very crucial asset for social and economic development of a country. Personal mobility for work, study and leisure, efficient and economical distribution of resources and produce are the essential requirements of modern day living.

Human resource is the most important resource of any organisation whose efficiency determines success. Therefore, development of this resource is of prime concern for Indian Railways. The Indian Railways employs around 1.4 million employees, out of which around 15,000 group 'A' and group 'B' officers including over 3000 medical officers are regularly trained in the College in all basic and advanced management courses. Railway Staff College is thus the Alma mater of all officers of the Indian Railways. The College has excellent facilities in terms of Class Room environment, Library, Computers, Sports, Hostel, Mess, etc for the trainee officers, the members of the faculty and other Guest Officers. The details of Railway Staff College and its training calendar are available on its official website, www.rscbrc.ac.in.

★**Diamond Jubilee Celebrations:** Having been set up at its present location on 31st January, 1952, the Railway Staff College celebrated its Diamond Jubilee on 31st January, 2012 with great enthusiasm and joy. Shri Vinod Rai, Comptroller & Auditor General of India was the Chief Guest and delivered the Keynote Address. Shri Yoginder K. Alagh, Chairman, IRMA was the Guest of Honour. During the Foundation Day Program, various medals and trophies were presented to Railway Officers, who displayed outstanding performances during various training programs in 2011. Besides this, Distinguished Alumnus Award was also presented to Dr Jagdeep S. Chhokar, an ex-officer of the Indian Railways and an alumnus of the Railway Staff College, who later shifted as faculty in IIM Ahmedabad, and is now a renowned social activist. On this occasion the Department of Post, Gujarat circle also issued a special cover commemorating the Diamond Jubilee of the College.