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USE OF PESTICIDES AND SUICIDAL BEHAVIORS IN INDIA: NEED FOR IMMEDIATE PUBLIC HEALTH ATTENTION

Arabinda Brahma

Emil Durkheim first highlighted upon the study of problem of suicide at the end of the last century. However, till the middle of last century little effort was made to differentiate between fulfilled suicide and attempted suicide. Presently both completed and attempted suicide are major public health concerns globally. The rate of attempted suicide is 10 times more than completed suicide¹. In India the current suicide rate is approximately 10.3 per 100,000 population². Various researches have revealed that young age, female sex, low educational level, married person and housewife status are potential risk factors for both completed and attempted suicide in India³⁻⁵. Several studies also document mental illnesses, especially major depression, are associated with suicidal behaviours⁶⁻⁷. However, the relationship between suicidal behaviours and designated mental illnesses is still controversial.

In the recent days poisoning is regarded as a major cause of death in rural and agricultural areas across the globe⁸. Studies from rural background have also reported poisoning as the commonest means for suicidal attempt⁹⁻¹⁰. We know, India is an agriculture-dependent country. A large study on suicidal behaviors in a remote rural area of West Bengal revealed that the current agricultural innovations have prompted farmers to harvest two or three crops in a year. They use different types of pesticides (mainly organophosphorus compounds) to safeguard the crops. Due to ignorance and carelessness in storage of the pesticides, lethal poisons are easily available and accessible to any member (including children) in the household. Furthermore, there is neither any control on sale and purchase of pesticides in most of the areas in India nor any safety information dissemination to the farmers. This study also highlighted the fact that majority of the pesticide shops in that area are, unlicensed and pesticides are available even in grocery shops from where any person can purchase any amount and type of pesticide without hindrance from these shops. In many occasions easy availability of pesticides triggered the suicidal act instantaneously specially amongst the young housewives and farmers in rural areas. Field observation studies in rural India also showed that the psycho-social stressors like marital conflicts, torture on women, conflict with in-laws family members and economic constraints have positive contribution to suicide attempts¹¹.

High rates of completed and attempted suicide in different parts of India call for an immediate public health intervention. The main preventive implication emerged from different studies is the development of timely psychosocial intervention addressed to ameliorate familial disharmony. A public health approach on imposition of regulation on purchase and sale of pesticides along with farmers' education on safe use and storage of pesticides should be considered urgently. This conjoint approach involving health system and local agriculture department may reduce the morbidity and mortality associated with suicidal behaviors in the agriculture dominated areas in India.

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SUICIDAL BEHAVIORS: CAUSES AND PREVENTION

Arabinda Brahma¹ & Mahuya Chatterjee Brahma²

The magnitude of the problem:

Everyday thousands of people commit and attempt suicide all over the world. However, actual statistics about suicide is difficult to obtain. Under-reporting, legal issues and improper record keeping are a few important factors why official statistics appear to underestimate the true rates of suicide and attempted suicide of any given society at a given point of time.

Suicide is considered as a major public and mental health problem. In 2000, approximately 8,15,000 person committed suicide i.e. 14.5 per 100000 population¹. On the other hand, approximately 20 million people attempt suicide every year throughout the world¹. In India, suicide is among the top ten causes of death. The current national suicide rate for India is 10.3 per 100000 population². According to the National Crime Records Bureau, West Bengal (13.3%), Maharashtra (13.1%), Andhra Pradesh (11.2%), Tamil Nadu (10.5%) and Karnataka (10.3%) contributed 58.4% of total suicide in India³. Interestingly, densely populated states like Uttar Pradesh and Bihar contribute relatively less suicides. Under-reporting may be an important cause for this significant difference between different states.

The importance of suicide from the public health point of view is persistently under-recognized even though it is considered as a leading cause of mortality all over the world. Besides biological (including genetic) and psychopathological factors, it has been revealed in researches that the socio-economic and cultural factors influence the risk of suicidal behavior.

Evolution of concept:

The instinct to survive is a very common human behavior. However, the wish towards self-destruction has been reported since the beginning of the civilization in every part of the globe. This peculiar behavior has been found in the ancient scriptures and historical documents written in different languages. According to Edwin Shneidman suicide is associated with thwarted or unfulfilled needs, feelings of hopelessness and helplessness, ambivalent conflicts between survival and unbearable stress, a narrowing of perceived options, and a need for escape; the person wants to die shows signals of distress⁴.

Human suicidal behavior has been considered as a dreadful and puzzling behavior. The word 'suicide' originated from Latin 'SUI' (of one self) and 'CAEDES' (murder). According to the eminent French Sociologist Emile Durkheim⁵: "suicide is any death that is the direct or indirect result of a positive or act accomplished by the victim himself/herself

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which, he /she knows or believes will produce this result". The study of suicide and its causes have come a long way since the views of Durkheim. In the present days, it has been revealed in different researches that the personal factors along with the social dynamics play a great role in the causation of suicide.

Suicide is considered as a peculiar behavior because all suicidal people are not death seekers. Before 1950s, not much distinction was made between people killed themselves and who died after such an act. Stengel in 1952 first used the term 'attempted suicide' to differentiate between completed suicidal act from attempted one⁶. It was Kessel and Grossman who changed the concept in 1960, stating the fact that intent was not an essential factor for attempted suicide as most of the attempters did this with the knowledge of their safety⁷. Later, Kreitman and his colleagues introduced the term 'parasuicide' to refer to the non-fatal act⁸. Further modification of terminology evolved when Morgan in 1979 coined the term 'deliberate self-harm' to provide a single term covering all non-fatal suicidal attempts⁹.

Historical background:

Suicidal behavior involves not only the individual concerned, it also affects the community for the socio-emotional dynamics associated with it. Historical analysis of suicidal behavior has shown that it had different meanings in different situations since the birth of mankind. In the ancient world, the voluntary self-killing was honorific and praised by the society. The cause of such act was either personal (for moral value) or collective (species survival value).

Descriptions of suicidal behavior is seen in the ancient Indian epics i.e. in *Ramayana* and *Mahabharata*¹⁰. In the more modern times, *Sati* and *Jaharbrata* are the two important ritualistic self-killings practised by the females in the Indian society. Some author considers these two are examples of altruistic suicide¹¹.

Religious background:

Bhagavat Gita is against the self-killing and self-destruction. However, in many Indian mythology, self-killings were glorified by attaching religious and spiritual values. The self-killing of *Vishma* and *Balarama* (elder brother of Lord Krishna) in *Mahabharata* are the classic examples. In the *Vedic* and *Upanishadic* times, death at the confluences of holy rivers by drowning for achieving 'punnya' (salvation in the next life) was a cultural and religious code prevalent in the society.

Islam clearly mentions that one should wait for his destiny and not to snatch it from the hand of *Allah*. Similarly, it was seen in Bible that Judas (one who betrayed Lord Jesus) was cried and wept with guilt and remorse before hanging himself. Researches have revealed that suicidal behavior was less commonly seen amongst Islam and Catholic communities than Jewish and Protestants communities.

Cultural background:

Durkheim was the first to highlight the influence of social and cultural factors in suicidal behavior. Cultures include all the aspects of living and thus have a complex influence on human behavior. Researches have shown that cultural value system of gender roles and social expectations influence the nature and rates of self-harm behavior¹². Influences of media on suicidal behavior in different countries have been depicted in various researches¹³. In the modern world, more concern for children is seen in most of the nuclear families. At the same time, neglect towards the elderly in the family has been increasing and leads to a feeling of meaninglessness in life, which in turn increases suicidal acts amongst them.

Researches from different parts of the globe have also revealed that suicide by chemical ingestion (e.g. pesticides, insecticides, indigenous poisons like Oleander seeds) may be an attempt to seek help by the individual involved in a specified distressed situation¹⁴.

Immigrant population is always at greater stress that involves mainly the struggle between old and new culture – with its attendant problems of poverty, poor housing, lack of social support and unmet expectations. All these may lead to suicidal behavior, especially in the younger age groups. This acculturative stress is also evident even within one country where the traditional groups (e.g. tribal population) are fighting hard for their existence by clinging to their traditional ethos in the face of engulfing dominating culture.

Imitative suicide is a mode of cultural communication where an individual or a group exhibits this behavior in extreme distress. This type of suicide is predominantly seen in adolescent age groups. It spreads through media publicity and gaining much attention in the recent days¹⁵.

It is a known fact that religion and social cohesion are two cultural determinants that guide the social life in a community. An important study amongst British Columbia's First Nations Women has revealed that how the cultural identity and traditional native spirituality has a healing effect on suicidal ideation and intention¹⁶.

Socio-economic factors:

Age and sex are two important social determinants identified in different suicide researches. The younger (15-30 years) and the elderly (above 65 years) age groups are at increased risk of suicide¹⁷. The suicide rates in India also peak for both men and women between the age 18 and 29¹⁸. In most of the countries more males than females commit suicide¹⁷. However, a few studies from China and India have shown higher female suicides than their male counterparts mainly in the rural areas^{19,20}.

Studies have shown that the risk of suicidal behavior increases among divorced, widow and single people^{21,22}. Marriage appears to be protective for males in terms of suicide risk but not so for females.

Certain occupational groups like farmers, dentists and medical practitioners are at a greater risk of suicide^{23,24}. Easy accessibility to lethal means, extreme work pressure, social isolation and economic constraints may be the causative factors that explain the higher suicidal rates amongst them²⁵. Unemployment increases poverty, social deprivation, domestic difficulties and hopelessness, which in turn increases the suicidal rates. Suicide of farmers in different states of India in the recent days probably highlight this association²⁵.

Easy availability of the means of committing suicide and stressful life events are other important social factors in suicidal behavior. A recent study in the remote rural areas of the Sundarban region of West Bengal, India has revealed that the ready availability and improper storage of pesticides in the households as well as the greater life stresses of women both in the outdoor works and in the domestic front, increase the chance of suicide amongst them²⁶.

Psychological profile:

Hankoff classified suicide attempters into three groups: i) impulsive suicide attempters who are angry and whose attempt is a response to limited stress, ii) those who have inability to cope with a transient life crisis and seek suicide as a solution and iii) those who attempt suicide on the background of a serious psychopathological condition or mental disorder²⁷.

Genetic factors:

Different studies revealed that suicide tends to run in families. In many occasions the person who committed suicide may act as a role model for the other family members. On the other hand, various evidence indicates that genes involved in transmission of psychiatric disorders like depression, alcoholism or schizophrenia may be responsible for suicidal behaviors. There may be some other genetic factor involved in suicidal behavior in spite of the above mentioned disorders²⁸.

Biological factors:

The commonest biological abnormality identified in suicide is the disturbance of brain serotonin level. An individual with low cerebrospinal serotonin metabolites may commit suicide more impulsively and die by violent methods²⁹.

Chronic Physical illnesses:

Chronicity, disability and negative prognosis associated with chronic physical illnesses may increase suicide risk. Cancers, epilepsy, head injury, multiple sclerosis, dementia etc. are the common diseases that have high suicide rates¹⁷. Moreover, an increased incidence of psychiatric illnesses (e.g. depression) are found in these conditions.

Life stressors:

Recent stressful life events like marital conflict or conflict with in-laws family members,

bereavement, family disturbances, economic constraints, failure in examination, broken love affairs etc. are associated with increased risk of suicide¹⁷.

Prevention:

Suicide is a preventable cause of death and the means of prevention is the ultimate goal of the art and science of suicide research. Strengthening the poverty alleviation projects, proper education for children, ensuring job security and to guarantee economic security for farmers are some of the important aspects of primary prevention of suicide. Minimizing migration related stressors and family conflicts as well as expanding family support are also important socio-cultural issues. Identification of high risk groups and establishment of emergency help lines services (involving the NGOs) may be a major step to reduce the morbidity and mortality related to the suicidal deaths.

Strengthening of stigma reduction programs in the community level to increase mental health awareness and early detection and treatment of mental illnesses are important steps to reduce the suicide risks. Suicide prevention should be made an integral part of community mental health care facilities.

Strengthening of legal issues like banning of over the counter sale of medicines, restriction of use and sale of pesticides, improved awareness regarding safe custody of pesticides, rules for banning unlicensed shops that sale pesticides illegally are some important measures to yield a positive result.

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PSYCHOLOGY OF RELIGION

Hemendra Ram Phookun

At the outset, I would like to make it clear that what follows in this write up is no way to criticize or analyze religion in terms of it being good or bad, relevant or irrelevant and so on. What I intend to do is to understand religion in a humble way from a professional point of view as to its evolution and the various needs it fulfils in a human society. Any attempt to explain anything about religion in terms of another discipline are sometimes misused and sometimes misunderstood as an attempt to undermine its very foundation. Most of the attempt at understanding religion is done either by a believer with preconceived notion that everything about religion is sanctimonious and not to be touched or by a non believer with preconceived notion that religion is archaic, non scientific, not relevant any more in an advanced society. Both the procedure are inherently biased and as such does not serve much purpose. A scientific understanding of any phenomenon is no way loosens its significance or value.

The questions then comes in the case why make attempt to analyze religion. Why not let it be where it has always been, in the real of faith. I feel that there is an urgent need to understand the evolution and purpose of religion mainly because- Time have changed dramatically with relentless advance in scientific discoveries. Faith in religion to some extent getting hypocritical and ritualistic, slowly losing its purpose God and religious teaching are being misused gainfully by vested and unscrupulous elements Religiously based social organization is getting replaced by political organization of society In view of this, may be there need to be some reorganization and reorientation in religious beliefs and practices to revise its usefulness in maintaining social order and cohesion.

What is religion? No definition of religion adequately elucidates it because it encompasses large number of diverse acts with no common denominator. Besides what is considered being religious in one society may not be considered in another society. However, broadly, religion can be conceived as a vast range behavior, thought, belief, emotion and attitude centered around moralizing human mind and organizing peaceful, disciplined and conflict free social organization of human beings.

From psychological point of view the most striking feature of religion is its universality. There are hardly any society in which religion play no significant role and there are perhaps few person who are at certain point of their lifetime has not experienced some religions stirring. From this universality one can infer that religion performs some basic adaptive function, so religions philosophies are invoked recurrently at all time and in all places to satisfy one or more basic universal human needs.

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Looking at religion from psychological point of view it appears that needs and functions of religious operations and psychic operations has certain core similarities. Psychic operations as was conceived by SIGMUND FREUD centers around handling the inborn, unbridled energy called 'ID'. It is the energy which knows no bounds, seeks immediate fulfillment, refuses to accept postponement and unconcerned about consequence, typical of a small child. If this drive is let loose into adult life, this reservoir of unregulated energy might destroy the very existence of human existence. The primary aim of psychic operations is to contain direct and organized dysenergy in a gainful way to propagate humanity and avoid anarchy.

Similarly, religious operations strives to contain undirected human wishes, desires and impulses of human society if uncontrolled might destroy the very foundation of human existence through anarchy. So it put sanctions against inherent human tendencies like aggression, violence in the form of killing, rape etc. the only difference between the two appears to be in psychic operations the core apprehension is uncontrolled sexual energy, while in religion it is the aggressive human tendencies.

PSYCHIATRY VIS- A -VIS RELIGION:

Mutual interest of psychiatry and religion as institution has grown dramatically in recent decades. The disinterest represent the current extension of contacts and influences that connected the two discipline for centuries past.

The pre scientific era saw a religious psychiatry and religious psychology, at times exclusively dominating the study of mental illness. RICHARD BURTON, 1932, in his book, 'ANATOMY OF MELANCHOLIA' has attributed general cause of melancholia or mental illness as either supernatural or demonic. Religious psychology or psychiatry makes scholarly attempts to understand the universe in religious terms. Illness both mental or physical was coincidence of either guilt or possession of devil. Scholarly accounts of the role played by religious psychology. Specially demonology is found in ZILBOORG and HENRY 's book" a history of medical psychology of 1941"

SIGMUND FREUD in his essay, 'obsessive actions and religious practices' 1907 explained that the term demon in demonology can be conceptualized as 'ID' from a psychodynamic explanation. So the ancient concept of demonic possession of illness can be easily translated in to overactive and uncensored 'ID' impulses and drives. This insight gave impetus to the study of psychology of religious beliefs and practices and in 1968 the group for advancement of psychiatry, a scientific group, made in-depth study of interface between psychiatry and religion.

PSYCHODYNAMICS OF RELIGIOUS PRACTICES AND PSYCHIATRIC DISORDERS

This study era began with a paper with a paper of SIGMUND FREUD in 1907. He observed many similarities between religious practices and psychiatric disorders.

In relation to obsessive compulsive disorder to religious practices both are –

- Fixed ideas and beliefs
- Stereotyped
- Apparently meaningless
- Leads to anxiety if rituals are not performed or impulses not compiled upon
- Both has similar purpose control of undesirable wishes or impulses
- Both function as controlling agent – the superego

This kind of understanding can be easily extended to other psychopathologies –

PHOBIA

Patient of phobia avoids situations that symbolized him to sexual temptations or opportunity. Religious persons also imposes stringent prohibition in areas of sexuality and aggression. Aversion, almost of phobic intensity developed towards the situations that offers the temptation to violate these provisions. Patients of phobia avoid situations which psychodynamically represent sexual temptation or opportunity. Similarly religious person avoid certain situations fearing he may be tempted to violate imposed regulations.

HYSTERIA

Classical hysterical attacks represent a flight from genital sexuality by some dramatic disability but with symbolic sexual gratification. Hysterical behaviors has quite often enjoyed religious sanctions in many religions all over the world.

DEPRESSION

Psychodynamically in the prodromal phase of depression, the person, in an attempt to fight back impending depression indulges in exuberance, pleasure seeking behaviour called 'PARADOXICAL HYPERMOTIVATION'. In conventional religious practices, these are not permitted. But some religious practices, these are not permitted. But some religious faiths recommend them as intermediary to union with God. These over indulgence is followed by defeat leading to depression.

On the other hand, persons suffering from depression tend to get more religiously oriented which can be viewed as seeking a dependent nurturing desire with the eternal parental figure- THE GOD.

SCHIZOPHRENIA

The aspect of religion that corresponds psychodynamically to schizophrenia is the sense of other worldliness or transedentalism. Transedence finds its most explicit expression in mysticism. As in mystical trances, in prodromal state of schizophrenia the world of consensual reality is rejected. The experience of external reality is replaced by impression arising from within. Rational thinking ie. Thoughts are governed by instinctual needs alone without regards to logic, reason or reality.

RELIGION AND PSYCHOSOCIAL NEED FULFILMENT

FREUD approached psychodynamic study of religion from the point of view of the conflicts of the group. He analyzed totemism and taboos invoking the principle of animism, projections, omni potency of thought, magic etc. he showed that the precursor of religion served the function of safeguarding group organization. Group is protected by these mechanism against individual antisocial ambitions, specially incest, patricide, bigamy etc.

Religion does seem to satisfy individual needs as well. It reassures individual against misfortunes by creating the impression that one's fate is determined by one's deeds. Religion fulfils the eternal human need of dependency, nurturance and protection by allowing them to lean on the ceaseless paternal figure – the GOD who is omnipotent, omnipresent and omniscognant. It also reassures against fear of death by promising eternal life – the soul never dies, it only changes body. Religion provides mechanism to deal with guilt by penance and self punishment. Finally it provides means to escape harsh realities of daily life by transferring responsibilities to GOD. He will protect, will provide ways and so on.

MY PERSONAL UNDERSTANDING

When I go through the religious scriptures and religious practices from the ancient times, it appeared to me that designation of any force as superpower had a pattern e.g in ancient times and also in aborigine societies even now, forces that are worshiped are forces like fire, river, ocean, snake etc. These forces appears to be forces which human society at ancient times were unable to control and as such felt helpless and insecure. Being unable to face the consequences of this insurmountable forces, human beings resorted to appear and worship these forces with hopes that these forces if happy will not harm humans.

At later stages thinkers saw in these phenomena large possibility of using the same social phenomenon to bring in organized social order, discipline and peace. Social order and discipline were attempted by human society using punishment and force, but found them to be only partially effective. So, it was felt that internal or self imposed superior force is necessary for this purpose, not requiring constant external supervision or punishment. So attempts were made to evolve a superior force which is everywhere including every living being. This superior force needs to be omnipotent, omnipresent and omniscognant; i.e HE is everywhere, HE knows everything and sees everything and able to do anything.

Thinkers felt that every human being need to have full faith and respect for this superpower.

In order to be acceptable to everyone in the society HE needs to have capacity for fulfilling basic needs of human beings. So human need of dealing with dependency, nurturance, protection, peace and guilt needs to be addressed. Besides, every human being should be able to identify and conceptualise this power in a simple conceptual framework. So, a superpower evolved which is somewhat like our protective and loving parents, but unlike our parents, is everlasting, benevolent, forgiving and protective, but also punishing when needs to be. So, the power although like our parents is much more than that, he is all powerful yet loving and forgiving and protective is also present and knows everything about our wishes and desires. HE is superparent in the sense that HE created every living being and loves and protect them. It fulfills basic human needs

- FEAR OF HARM- HE is always there
- FEAR OF INSECURITY- HE is all powerful and is always there with us
- FEAR OF GUILT- The concept of karma, besides he is all forgiving and forgives one who repents a bad act and does penance.

To use this potentially powerful psychological tool for social order and discipline it is implied in all the religions that HE loves you, protects you, forgives you and is happy and pleased with you. What pleases HIM is if one does good deeds, does not harm others and helps others and so on. This concept was evolved for social order.

PSYCHIATRIC RELEVANCE:

This concept of a superior power or force also appears to be relevant to us:

- It functions as a surrogate EGO helping the ego to deal with primitive wishes and desires.
- It also functions as surrogate superego widening the jurisdiction of super ego and strengthening its effectiveness.
- It is a useful defense mechanism to deal with fear stress and guilt
- Finally it also helps by using these concepts in our therapeutic procedures.

So it appears that religion has been fulfilling some basic human needs which help in maintaining human existence in a healthy way. As such religion was relevant and hopefully will always remain relevant, albeit with some, reorientation to suit the changing need of human society.

PSYCHIATRY AND CARDIOVASCULAR DISEASES: A BRIEF REVIEW

Dipesh Bhagabati¹, Shyamanta Das²

"People never die of love or grief alone: though some die of inherent maladies, which the tortures of those passions prematurely force into destructive action."

Charlotte Bronte, Shirley, 1848

Heart and psych are interrelated. Through the activation of the autonomic nervous system, emotional and stressful experiences have an effect on the heart. Traditional risk factors like hypertension, high cholesterol, smoking, and physical inactivity explain only 50% of variation of mortality in coronary heart disease. Thus the focus on behavioural risk factors such as depression and anxiety to seek additional explanation.

Major depression and depressive symptoms are commonly encountered in medical populations, although they are frequently underdiagnosed and undertreated in patients with cardiovascular disease (CVD). This is of particular importance because depression and its associated symptoms is a major risk factor for both the development of CVD and death after an index myocardial infarction (MI). Treatment of depression in patients with CVD improves their dysphoria and other signs and symptoms of depression, improves quality of life (QOL), and even increases longevity.¹

Early studies reported the prevalence of depression to be from 18% to 60% in patients with coronary artery disease (CAD).²⁻⁶ Later studies report relatively consistent prevalence rates of depression in patients with CVD, ranging from 16% to 23% (mean, 19%; median, 18%); the incidence was particularly raised (36.5%) in elderly patients with chronic congestive heart failure.⁷⁻¹²

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Table 1.
Incidence of severe depression in patients suffering from heart disease.¹³

Study	Number and type of patients	Diagnostic method	Incidence of severe depression (%)
Schleifer <i>et al.</i> (1989)	283 patients hospitalised for myocardial infarction	SADS	18
Carney <i>et al.</i> (1993)	103 patients suffering from heart failure confirmed by angiography	DIS	18
Frasure-Smith <i>et al.</i> (1993)	222 patients hospitalised for myocardial infarction	DIS	16
Gonzalez <i>et al.</i> (1996)	99 patients hospitalised for coronary heart disease	DIS	23
Hance <i>et al.</i> (1996)	200 coronary patients eligible for angiography	DIS	17
Koenig (1998)	107 elderly patients (>60 years) with heart failure	DIS	36.5

SADS = Schedule for Affective Disorders and Schizophrenia; DIS = Diagnostic Interview Schedule.

There is mounting evidence linking cerebrovascular disease with depressive symptoms in the elderly. Lesions in both white and gray matter have been associated with depressive symptoms and major depression. The number of small (<3 mm) basal ganglia lesions was significantly associated with reported depressive symptoms.¹⁴

Nearly all the recent studies document increased cardiovascular morbidity and mortality in patients with depressive symptoms or major depression. These implicate depression as an independent risk factor in the pathophysiologic progression of CVD, rather than merely a secondary emotional response to the illness.¹⁵⁻²⁷

The Montreal Heart Institute study found the 1-year cumulative incidence of depression in 218 post-MI patients to be 31%,²⁸ a result that was recently reproduced in an expanded sample.²⁹ A study of 200 patients who had suffered a first MI found a 1-year cumulative incidence of depression of 25%.³⁰

In the first few weeks or months following coronary artery bypass graft (CABG) surgery, the point prevalence of depression is in the range of 20%–30%.³¹⁻³³ In patients with congestive heart failure (CHF), three studies have found the prevalence of depression to be approximately 20%,³⁴⁻³⁶ and one study found a 35% point prevalence of depression in 374 CHF patients admitted to an inpatient cardiology service.³⁵

The epidemiology of anxiety disorders in CAD is not as well studied as that of depression, even though symptoms of anxiety are relatively common in cardiac patients.³⁷ The incidence of anxiety symptoms in patients with acute coronary disease in cardiac care units is approximately 50%.^{38,39} Anxiety symptoms have been reported to be elevated in 5%–10% of patients with chronic heart disease.⁴⁰ A recent study of 100 stable outpatients with coronary heart disease (CHD) using structured interviews for the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) diagnosis demonstrated that multiple psychiatric diagnoses were common. Generalized anxiety disorder and posttraumatic stress disorder (PTSD) were identified in more than 20% of patients. Alcohol abuse, recurrent major depression, past episodes of depression, and current dysthymia were also prevalent, but single-episode current major depression was rare.⁴¹ Of 61 post-MI patients referred to a cardiac rehabilitation program, 4.9% were diagnosed with social phobia and 3.3% with agoraphobia without panic attacks.⁴² Lane and colleagues, in a study of 288 patients hospitalized for MI, found a 26% incidence of In a study of CABG patients, 55% had high levels of state anxiety preoperatively, and 32% had clinically significant levels of anxiety 3 months after surgery.⁴⁴

There are few data on the prevalence of anxiety disorders in patients with CHF.⁴⁵ In a review of data from the Studies of Left Ventricular Dysfunction (SOLVD) trials, women were found to have significantly worse anxiety than women in several comparison groups, including normal subjects, geriatric subjects, hypertension patients, and cancer patients.⁴⁶ High levels of anxiety symptoms were also reported in subjects in a survey of ambulatory outpatients with dilated cardiomyopathy.⁴⁷

Lack of a close confidant before MI was associated with adverse outcome after MI. This association may be mediated by unhealthy behaviours and lack of compliance with medical recommendations. It is also compatible with difficulties in early life leading to heart disease.⁴⁸

Improvement in treatment of patients with CHD has caused longer survival. But it also increases the number of patients at risk for subsequent cardiac events and impaired quality of life (QOL). Decreased left ventricular ejection fraction (LVEF), poor exercise tolerance, younger age, symptoms of depression, and distressed personality type (type D—i.e., high negative affectivity and social inhibition) increase the risk of cardiac events; convergence of these factors predicts nonresponse to treatment. When 2 or 3 risk factors occurred together, the rate of poor outcome was 4-fold higher. Estimates of medical costs increased progressively with an increasing number of risk factors. Smoking, symptoms of depression, and type D personality were independent predictors of impaired QOL.⁴⁹

Anger, suppressed anger, hostility, antagonistic reaction, cynicism and mistrust take a toll by increasing ischaemic heart disease, acute coronary syndrome and overall total mortality.⁵⁰ Sudden acute mental stress causes negative cardiovascular consequences. Increased cardiovascular mortality is seen in the month immediately after death of a loved one. Sudden stress can precipitate MI in 30% to 60% ischaemic heart disease patients. Two fold increases in MI is observed in the 2 hours after an episode of intense anger. Overall worries relating to social, financial, health issues, lead to CHDs including angina, non-fatal and fatal MI.⁵¹

Chronic stress, such as job strain, also increases the risk of CHD. The Whitehall II study,⁵² a prospective cohort study of 6,895 male and 3,413 female civil servants 35–55 years of age followed over a period of 11 years on average, looked at rates of coronary death, angina, and nonfatal MI. Even after adjustment for age, sex, pay grade, and coronary risk factors, the employees with low decision latitude and high demands (high job strain) had an increased relative risk of CHD events compared with those without high job strain. The effect was most correlated with high job demands and less so with low decision latitude. Interestingly, the effect was more pronounced in lower age groups, and there was no effect difference related to employment grade or social support at work. The INTERHEART study, a recent very large multinational study of risk factors in MI patients, revealed that stress levels were higher among individuals with new MI compared with age-, sex-, and site-matched control subjects. The population attributable risk for psychological stress, that is, the proportion of MI cases attributable to stress, was 12%–33%.⁵³ Sykes *et al.* found a relationship between depression and angina which may reflect a tendency for individuals who respond negatively on mood state to report more cardiac symptoms irrespective of physical disease state.⁵⁴

There is growing evidence that patients with congenital heart disease who undergo surgery may be at increased risk of neurodevelopmental dysfunction. This is particularly true for the paediatric survivors.⁵⁵ Significant predictors for behavioural and emotional problems in patients operated for congenital heart disease in childhood are being female, having low exercise capacity and restrictions imposed by physicians. Regarding the scar as a result of open heart surgery, personal experiences of patients form a better predictor for later problems than judgement of aesthetical aspects by physicians. The cardiac diagnoses of ventricular septal defect and transposition of great arteries are associated with higher levels of behavioural and emotional problems.⁵⁶

Druss *et al.* noted that patients who have mental disorders, especially schizophrenia, tend to undergo less cardiovascular surgery than patients who do not have such disorders. The reasons are not clear, but they may follow from a belief that psychiatric patients have too many problems to deal with.⁵⁷

In recent years, there has been a dramatic increase in research about the relationship between psychiatric symptoms and disorders and cardiovascular disease.³⁷ Such research has been spurred by several factors:

1. Improved epidemiological and diagnostic methods.
2. New knowledge of the effects of the autonomic nervous system and other physiological consequences of stress and anxiety.
3. Increasing integration of biological and psychological conceptualisations of mental disorders.
4. The recognition of the cardiovascular effects of psychotropic drugs.

One of the proposed mechanisms by which depression acts as a significant risk factor for

thrombotic events is increased susceptibility to platelet activation. There is an indication of enhanced platelet activation and aggregation in depressed patients. Moreover, patients with a depressive disorder show signs of a hyperactive platelet 5-hydroxytryptamine type 2A (5-HT_{2A}) receptor signal transduction system. It is measured by increased platelet calcium mobilisation after stimulation of platelets with serotonin. Depression appears to be associated with an increased susceptibility for serotonin-mediated platelet activation. Upregulation and/or increased sensitivity of 5-HT_{2A/1B} receptors and downregulated 5-HT transporter receptors in the periphery may contribute to increased risk of thromboembolic events in patients with depression and cardiovascular disease. Increased platelet reactivity based on a hyperreactive 5-HT_{2A} receptor signaling system might be influenced by antidepressant medication that antagonises platelet 5-HT_{2A} receptors.⁵⁸

Platelet factor 4 (PF 4) and beta-thromboglobulin (β -TG) were studied in 12 depressed post-MI patients and 12 matched non-depressed post-MI patients. PF4 was significantly higher in the depressed group than in the non-depressed group. β -TG was increased in the depressed subgroup, but the difference was not statistically significant.⁵⁹

The hypothalamo-hypophyso-suprarenal axis is activated in reaction to stress. Release of corticotrophin-releasing factor (CRF) from the hypothalamus increases the synthesis and release of corticotrophin (ACTH), α -endorphins, and proopiomelanocortin by the anterior part of the hypophysis. As a result, there is increased synthesis of the steroids which have a favourable action on atherosclerosis (hypercholesterolaemia, hyper triglyceridaemia, hypertension, endothelial lesions). Continuing with the findings Musselman *et al.* viewed that severe episodes of depression are accompanied by malfunctioning of the sympathetic nervous system. There is a chronic increase in the concentration of noradrenaline and its metabolites in unipolar depression. Conversely, concentrations of these in plasma and urine decrease under the influence of antihypertensive treatment. Thus, sympathomimetic hyperactivity may be considered to be one of the somatic markers of depression.¹

This sympathomimetic hyperactivity contributes to the development of cardiovascular disease via the effects of catecholamines on the heart, vessels, and platelets. In fact, the hypersecretion of catecholamines translates into harmful haemodynamic effects (vasoconstriction, increase in resting heart rate, arterial hypertension, etc.). Activation of the sympathetic nervous system also has a direct and indirect action on platelet function (haemodynamic factors).

Heart rate variability (HRV) is the standard deviation in the interval between two successive R waves (the first positive deflection of a QRS complex) on an electrocardiogram (ECG) in sinus rhythm; this variability is controlled by the sympathetic and parasympathetic autonomic nervous system, and by the rennin-angiotensin system. Several neurotransmitters act on this variable including acetylcholine, noradrenaline, serotonin, and dopamine.

Cardiac homeostasis is maintained by the sympathetic and parasympathetic systems of the chemoreceptors and the baroreceptors. Via arterial and venous tone, these modify HRV, atrioventricular conduction, contractility, and the peripheral vascular system. HRV is one of the important prognostic factors in survival following MI.

Several studies have reported a reduction in HRV in patients with depression, a phenomenon which exposes subjects to the risk of serious ventricular arrhythmia and emphasises one of the possible links between depression and high cardiac mortality.^{60,61} Nahshoni *et al.* revealed a correlation between depression and a widening of the QT interval on an ECG, a well-known and important predictive marker of cardiac mortality.⁶²

Psychological and physical events can elicit a stress response i.e. the reaction of an organism to deleterious forces that disturb physiologic homeostasis. In humans with CAD, psychological stress increases ventricular ectopic activity and increases the risk of ventricular fibrillation. There are several similarities between the stress response and major depression. Both can be characterised by increased blood pressure and heart rate, as well as increased arousal and increased mobilisation of energy stores. Particularly relevant to both the stress response and depression are 2 critical brain structures, the locus coeruleus and the central nucleus of the amygdala. These are in turn both innervated by CRF-containing nerve terminals.

C-reactive protein is elevated in stress, depression, anger. Increased C-reactive protein results in narrowing of arteries. Moreover, interaction of 5-lipoxygenase (5-Lox) and 5-Lox-activating protein (FLAP) promotes formation of leukotrienes from omega-6-arachidonic acid. Dietary omega-3-fatty acids contain less leukotrienes which is beneficial in cardiac and psychiatric disorders like depression. There have been implications of 5-Lox and FLAP gene as risk factors in atherosclerosis and cardio-cerebrovascular pathology. 5-Lox activity is associated with anxiety and depression.⁶³

Depression and anxiety in patients with CHD are associated with a poorer prognosis. Therefore the screening for psychological distress is strongly recommended in cardiac rehabilitation. It may be difficult to diagnose depression in a patient suffering from somatic illness, as some symptoms such as anorexia, weight loss, insomnia, anxiety, fatigue, and poor concentration may be attributed to depression, but may also be secondary to the somatic illness or its treatment. If one sticks strictly to the diagnostic criteria, there is also a risk of overestimating the frequency of depression in patients suffering from organic disease. The Hospital Anxiety and Depression Scale (HADS) is a widely used screening tool that has demonstrated good sensitivity and specificity for mental disorders. The HADS might be especially appropriate as it is a simple questionnaire (containing 14 items), filled in by the patient, which evaluates the symptoms of depression as well as anxiety which is particularly common in this type of patient. A tri-dimensional underlying factor structure interpreted as psychomotor agitation, psychic anxiety, and depression were found to offer a superior fit to the data compared to two-factor (anxiety and depression) models.⁶⁴ Schrader *et al.* showed that screening hospitalised cardiac patients for depression and providing targeted advice to their general practitioners reduces depression severity 12 months after hospitalisation.⁶⁵

It is becoming clear that the comorbidity of depression and cardiovascular disease does not occur by chance. Rather it is an inevitable consequence of the relationship between the conditions. Depression in patients with cardiovascular disease is a significant risk

factor for developing symptomatic and fatal ischaemic heart disease. Depressed patients also have a higher than expected rate of sudden cardiovascular death. Therefore, appropriate treatment of patients with depression and cardiovascular disease cannot be restricted to considerations of either depression or cardiovascular disease in isolation.⁶⁶

There is significant correlation between symptoms of depression and survival rate from MI. Independently of other risk factors, relative risk is 1.9 ($p < 0.005$).⁶⁷ Depression considerably increases the risk of infarction in the following year ($p < 0.0001$).⁶⁸ In the absence of antidepressant treatment, the increase in cardiac risk appears to be correlated with the severity of symptoms of depression and seems to be noticeably prolonged.

Some stress management or behavioural counseling programs with CVD patients have been associated with reduced risk of recurrent cardiovascular events and increased rates of long-term (5-year) survival.⁶⁹⁻⁷² More recent studies report no benefit to patients or even a worse outcome for women in comparison with usual care.⁷³⁻⁷⁵ Disappointing findings have emerged recently from randomised controlled trial examining the effect of psychotherapy (Enhancing Recovery in Coronary Heart Disease Patients [ENRICH]) on reduction of depressive symptoms in post-MI patients with major depression. Explanations for the modest reductions in depressive symptoms have stressed difficulties with delivering complex psychosocial interventions such as cognitive behavioural therapy to patients with severe physical illness.⁷⁶

The tricyclic antidepressants (TCAs) have various effects on the cardiovascular system, including Type IA antiarrhythmic activity that has been associated with an increased risk of mortality in post-MI patients. Because of fewer potential adverse effects on the cardiovascular system and the lack of lethality in overdose, somatic treatment with selective serotonin reuptake inhibitors (SSRIs) or other atypical antidepressants (such as bupropion or nefazodone) may offer significant advantages in depressed patients with CVD. The SSRI paroxetine was compared with a therapeutic level of the TCA nortriptyline in a randomised, controlled study and demonstrated a benign cardiovascular profile, while the TCA induced a significantly higher rate of serious adverse cardiovascular events.⁷⁷ On the basis of this favourable cardiovascular profile, the SSRIs should therefore be preferred choice for the treatment of most patients with comorbid depression and cardiovascular disease. Monoamine oxidase inhibitors and trazodone are generally free of effects on cardiac conduction, but, like the TCAs, may cause postural hypotension. The Sertraline AntiDepressant Heart Attack Randomised Trial (SADHART) study, a randomised, multicentre, double-blind trial of sertraline vs. placebo in the treatment of post-MI patients with comorbid major depression, seeks to determine the efficacy of this antidepressant in the depressed post-MI patients.¹

The recent SADHART investigation demonstrated that sertraline is safe and efficacious in depressed patients with ischemic heart disease but was underpowered to detect a mortality difference between sertraline and placebo. The ENRICH trial showed that cognitive-behavioural therapy is effective for treating depression but had no impact on

cardiovascular morbidity or mortality. There are a number of methodologic complexities associated with research regarding depression and cardiovascular disease, including difficulties in the definition and measurement of depression, complexities in the conduction of large-scale trials, ethical considerations surrounding the use of placebo, and interpretation of trial results. In addition, the lack of certainty regarding the pathophysiologic link between depression and cardiovascular disease means that there is a lack of pharmacotherapy targeted specifically at the dysregulated physiology that might explain the increased morbidity and mortality seen when these two conditions occur together.⁷⁸

SADHART was a double-blind, placebo-controlled, randomised trial comparing the safety and antidepressant efficacy of sertraline vs. placebo in 369 patients with acute coronary syndrome (ACS) who met criteria for major depressive disorder (MDD). The trial was completed in June 2000, and follow-up for vital status was completed in September 2007. Vital status was determined in 361 participants (97.8%) during a median follow-up of 6.7 years. During the study, 75 participants (20.9%) died. Neither previous episodes of MDD, nor onset before or after the index ACS, nor an initial 6 months of sertraline treatment was associated with long-term mortality. Cox proportional hazards regression models showed that baseline MDD severity (hazard ratio, 2.30; 95% confidence interval, 1.28-4.14; $P < .006$) and failure of MDD to improve substantially during treatment with either sertraline or placebo (hazard ratio, 2.39; 95% confidence interval, 1.39-2.44; $P < .001$) were strongly and independently associated with long-term mortality. Marked improvement in depression (Clinical Global Impression-Improvement subscale score of 1) was associated with improved adherence to study medication. Severity of MDD measured within a few weeks of hospitalisation for ACS or failure of MDD to improve during the 6 months following ACS predicted more than a doubling of mortality over 6.7 years of follow-up. Because persistent depression increases mortality and decreases medication adherence, physicians need to aggressively treat depression and be diligent in promoting adherence to guideline cardiovascular drug therapy.⁷⁹

Psychotherapeutic and/or psychopharmacologic treatment of the 15% to 23% of post-MI patients, who fulfill the criteria for major depression, as well as those with significant dysphoria but subsyndromal depression, may have significant effect (positive or negative) on both medical morbidity and mortality. After short-term treatment with paroxetine or fluoxetine, depressed patients exhibited no changes in HRV. The only currently known cardiac effect of SSRIs is severe sinus node slowness, to date reported in only a few cases. There have been some reports of alterations of haemostasis and platelet aggregation following treatment with fluoxetine. Investigation of putative pathophysiologic mechanisms linking depression and cardiovascular mortality, such as the role of platelet activation, will form the basis for further investigation of antidepressant treatments in order to establish if the antidepressants have a beneficial effect on the prognosis of cardiovascular diseases. Because serotonin has been implicated both in platelet aggregation and coronary artery vasoconstriction, it is of paramount importance to determine whether the SSRIs, widely used to treat major depression, produce effects on platelet function. Because of inhibition of cytochrome P450 isoenzymes, SSRIs must be used with caution, particularly in those

patients receiving medications metabolised by the P450 2D6 isoenzyme (such as lipophilic α -blockers and Type IC antiarrhythmics [encainide, flecainide, mexiletene, and propafenone]) and the P450 3A4 isoenzyme (such as calcium channel blockers and warfarin).

Table 2.

Cardiovascular and antidepressant drugs affected by the main cytochrome P450 isoenzymes.⁸⁰

CYP 1A2 CYP 3A4,5,7	CYP 2C19	CYP 2C9	CYP 2D6
Tricyclics SSRIs Amitriptyline Fluvoxamine Clomipramine Imipramine	Tricyclics Amitriptyline Clomipramine Imipramine	Tricyclics Amitriptyline	Tricyclics Amitriptyline Clomipramine Desipramine Imipramine Nortriptyline
SSRIs β blockers Fluvoxamine Propranolol	SSRIs Citalopram Fluoxetine Fluvoxamine Paroxetine	SSRIs Fluoxetine Fluvoxamine Paroxetine Sertraline	SSRIs Fluoxetine Fluvoxamine Paroxetine Sertraline
β blockers Calcium-channel	MAOIs Moclobemide	Angiotensin II antagonists Irbesartan Losartan	SNRIs Venlafaxine
blockers Propranolol Amlodipine Diltiazem Felodipine Lercanidipine Nifedipine Nitrendipine Verapamil			
Calcium-channel β blockers		Oral	β blockers

Antiarrhythmic blockers drugsVerapamil
Amlodarone
Quinidine**anticoagulants**

Propranolol

R-Warfarin

Carvediol
Propranolol
S Metoprolol
Timolol**Oral HMG CoA
anticoagulants
reductase****inhibitors**R-Warfarin
Atorvastatin

Cerivastatin

Lovastatin

Simvastatin

Oral**anticoagulants**

R-Warfarin

**Antiarrhythmic
drugs**

Flecainide

Lidocaine

Propranolol

Quinidine

SSRI = selective serotonin reuptake inhibitor; SNRI = serotonin norepinephrine reuptake inhibitor; MAOI = monoamine oxidase A inhibitor.

MI calls cardiologists for care of cardiological sequel. Management of psychiatric sequel brings psychiatrists into the picture. Given this background, the comprehensive management of MI needs to address the cardiological as well as psychiatric sequel. Dr. Dipak Chopra, the endocrinologist turned new age guru, strikes the right notes: "Happy thoughts generate happy molecules!!!" In conclusion, psychological factors are important considerations in CAD. These factors often remain underdiagnosed and untreated. They lead to increased morbidity and mortality. Management of these factors will not only reduce morbidity and mortality but also will lead to better QOL.

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PARASOMNIAS – A REVIEW

Debjani Bandyopadhyaya

But the tigers come at night,
With their voices soft as thunder,
As they tear your hope apart,
As they turn your dream to shame.
– "I dreamed a dream" ..

LES MISERABLES

Parasomnias constitute one of the main categories of sleep disorders. Broadly defined these are undesirable behaviour or experiential phenomena occurring during sleep or in the transition to, and from, sleep. Parasomnias can be divided into three subgroups: disorders of arousal, disorders of REM sleep, and other parasomnias. These occur due to abnormal transitions between the three primary states of being awake, rapid eye movement (REM) sleep, and non rapid eye movement (NREM) sleep. These different states may overlap or intrude into one another, and produce parasomnias.

Historically- Earlier parasomnias were believed to be related to mystical or supernatural forces. Then in the early twentieth century Psychoanalytic theory believed that unconscious drives affect human behavior. So dreams were supposedly expression of latent desires. Accordingly parasomnias were thought to be caused by underlying mental illness. But recently with the advent of a new stream Sleep medicine, researchers have found that there is no direct relation between psychiatric disorders and parasomnias. But parasomnias present behaviorally, may be caused by psychotropic medications and occasionally improves with psychotropics. Therefore parasomnias are best managed with an interdisciplinary perspective and psychiatric considerations should be understood.

Classification

International Classification of Sleep Disorders: Diagnostic and Coding Manual, Second Edition (ICSD-2) [1] has classified parasomnias-

Disorders of Arousal from NREM Sleep

- Confusional arousals
- Sleepwalking
- Sleep terrors

Parasomnias usually associated with REM Sleep

- REM-sleep behavior disorder
- Nightmares
- Recurrent isolated sleep paralysis

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Other Parasomnias

- Sleep related dissociative disorders
- Sleep enuresis
- Sleep related groaning
- Exploding head syndrome
- Sleep related hallucinations
- Sleep related eating disorder

Disorders of arousal

Non rapid eye movement sleep arousal parasomnias include confusional arousals, sleep terrors (*pavor nocturnus*) and sleepwalking (somnambulism). These emerge when normal wake and NREM state boundaries become destabilized and elements of the waking state intrude into NREM sleep. These disorders are characterized by being not under conscious control, does not occur with ordered judgement, nor responsive to environment, arise from slow wave sleep (SWS) within first 1 or 2 hrs of sleep onset and seldom remembered. [2]

Confusional Arousals

It is characterized by abrupt awakenings with apparent confusion, diminished vigilance, disorientation, and occasional violent or inappropriate behavior. It can occur throughout the night but most commonly during the first half of the major sleep period when NREM density is highest. Prevalence is 4 per cent of adults. Children may present with inconsolable crying. Duration of arousals is variable, usually very brief. Affected individuals often have no recollection of the event upon awakening, and typically do not leave the bed. So without partner information, the disorder often goes undetected. [2]

Sleep drunkenness

It is a variant of confusional arousal. It is characterized by excessive sleep inertia which occurs from final awakening, thus differentiating it from confusional arousal. They last minutes to hours. May occur after naps or full sleep periods, severity is related to depth of prior sleep. There are more chances of recall.

Sleep terrors

Sleep terrors are characterized by abrupt awakenings from sleep accompanied by loud screaming, crying, apparent panic and agitation. Violent behavior is seen and attempts to reason with, or console, are often unsuccessful, may even give rise to worse behavior or a violent reaction. Occurs in 5% children and in 1 – 2 % adults. It is believed to be a reaction to a frightening image that results in agitated arousal and sympathetic nervous

activation. In children, sleep terrors often occurs in clusters, disappears for several months and then recurs. They begin by 18mths. It is very frightening for caregivers as the child is inconsolable and often doesn't appear to recognize parents. Child may sit bolt upright, stare with irregular breathing. It lasts seconds to 10 minutes and the child has no recall in the morning.[3]

Sleep walking

In this condition the patient may appear agitated or calm, and behavior may range from simple ambulation with a "glassy stare" to more complex activities such as driving. Typically patient has eyes open, act clumsy, and if undisturbed return to sleep, though may be in inappropriate places. Occasionally preceded by confusional arousals or sleep terrors. Seen more frequently in children, 10- 20%, in 3 – 10yrs age group. The prevalence in adults is 1-4%. Psychotropic medications increase the risk in adults who has a childhood history of sleepwalking.[4]

Evaluation

The physician must take a thorough history, emphasizing personal and family history of sleep disorders and social history along with a physical examination. Need to search for factors that may trigger or exacerbate the parasomnias including febrile illness, alcohol use, sleep deprivation, stressors and medication. A neurologic and mental status examination is essential. Polysomnography in NREM arousal disorders show increased brief arousals from SWS with preserved sleep EEG and autonomic activation following arousal. PSG should be done in patients with new onset without childhood history, to rule out treatable causes like Periodic Leg Movement Syndrome, nocturnal seizures, sleep related breathing disorder, in patients with occupationally- or socially-limiting excessive daytime sleepiness; violent or disruptive behavior; injuries to self or others; or significant medical, psychiatric or neurologic findings. EEG may be done to exclude nocturnal seizures as well as neuroimaging studies to exclude a structural lesion.

Treatment

Primary therapy is reassurance and prevention of harm to self or partner. It is usually benign and tends to resolve spontaneously with time. It is essential that both the patient and bed partner be educated about safety precautions for the home and bedroom environment and reduce or eliminate potential sources of injury. Bed partners should be counselled not to attempt to stimulate the patient during an episode as this may trigger violent behavior. Prevention of factors and behaviors that can precipitate arousal parasomnias, including sleep deprivation as well as the use of alcohol and caffeine must be done. A trial of sleep extension or scheduled awakening may be considered. Scheduled awakenings involve 5-6 nights recording of timing of the event, then wake the patient 10-15 minutes before and maintain awake for 5 minutes. This procedure should be followed for 5-7 nights.

Pharmacotherapy

Pharmacologic agents that have been used with some success include Paroxetine and Trazodone and low-dose benzodiazepines like Clonazepam. Relaxation techniques and hypnosis have been described as therapy for NREM arousal disorders.

REM Sleep Parasomnias

REM Behavior Disorder

It is characterized by the intermittent loss of REM atonia due to disinhibition of normally inhibitory mid-brain projections to spinal motor neurons. This, in conjunction with an active dream state, results in behavioral release and the apparent "acting out of dreams". The complaints are of violent nocturnal behavior especially when the latter are out of character with the patient's waking personality, vivid dreaming and self or bed partner injury. Abnormal behaviors include sleep talking, yelling, limb movement, and complex motor activities. Patients arouse from sleep to full alertness often with complete recall of fearful dream content, which may involve being chased or attacked.[5]

Types

Usually two types, acute (caused due to medications like SSRIs, alcohol withdrawal etc) and chronic, common in men over 50. Out of them 60% are idiopathic, and the rest are secondary to neurologic process, most commonly Parkinson's Disease, Lewy body dementia, Multiple system atrophy. Pathologically damage to pedunculo pontine nucleus is implicated. The prevalence is about 0.5 per cent. The motor behavior exhibited tends to correlate with dream content and the frequency varies from once every few weeks to several times a night. Episodes tend to occur 90 min or more after sleep onset, when the first REM period typically begins. As the REM density is greatest during the latter part of the evening, RBD episodes tend to occur more frequently during this time.[6]

Evaluation and Treatment

A thorough medical, neurologic and psychiatric history, physical examination is needed along with polysomnography with video monitoring. Polysomnographic findings often reveal normal sleep architecture and characteristic REM-associated abnormalities (increase in chin EMG activity, and excess REM-associated limb activity). For treatment ensure the safety of the patient and bed partner. Pharmacologic treatment with benzodiazepines is reported to be quite effective along with Melatonin, Pramipexole, Levodopa, Gabapentin and Clonidine. [7]

Recurrent sleep paralysis

It is characterized by paralysis of voluntary musculature associated with conscious state at the onset or offset of sleep. Caused by REM intrusion into wakefulness or failure to maintain sleep during REM. May last from seconds to minutes, resolve when touched or on reentry into sleep. Usually occurs within 1st 2 hrs or on final awakening. Prevalence is 1-10% and associated with BPAD, depression, anxiety, PTSD. SSRIs may be implicated due to their REM suppressing properties.

Nightmares

They are unpleasant, often frightening, dreams that commonly awaken the sleeper out of REM sleep. Episodes typically occur in the latter half of the night. Following the awakening, the individual becomes fully alert and profoundly anxious. There is vivid recall of the preceding dream as well as difficulty returning to sleep. Compared to sleep terrors, there is less autonomic activation, and tachycardia and tachypnoea, if present, are not as severe. Nightmares related to acute stress disorder or post-traumatic stress disorder can also occur during NREM sleep. Episodes can be precipitated by illness, traumatic experiences, and alcohol and medication use, such as antidepressants and beta-antagonist antihypertensive agents. Onset of nightmares is usually during childhood when prevalence is highest 10 – 50% in 3-6yrs age group. Among adults it is more common in women than in men.

Management

They should be distinguished from sleep terrors, RBD and nocturnal panic attacks. Reassurance that the condition is benign, no specific therapy is usually necessary is needed. Behavioral treatment, such as imagery, psychotherapy or REM sleep suppressant agents may be considered for individuals who present with very frequent events or who describe extremely disturbing dream contents. Prazosin and Topiramate have been used for PTSD related nightmares.

Exploding head syndrome

There is a sensation of sudden loud noise or "explosion" felt in the head that occurs as an individual falls asleep. It is not accompanied by significant pain but may be associated with a sensation of a flash of light or a myoclonic jerk. This disorder is considered by many to be a variant of sleep starts and generally has a benign course that requires no specific therapy.

Sleep related groaning

Characterized by expiratory groaning during sleep. Occurs commonly during REM sleep in the second half of the night. It is a rare condition that is more prevalent among males. Affected individuals are asymptomatic and physical examination and sleep architecture are generally normal.

Sleep related eating

Consists of arousals from sleep with involuntary eating or drinking. Usually triggered by learned behaviour and not by real hunger or thirst. Generally there is partial or total amnesia for the episode, and no associated abnormal eating behaviour while awake. Onset is commonly during adulthood, with women more than men. Episodes can be precipitated by sleepwalking, obstructive sleep apnoea and medication use (e.g., zolpidem).

Sexsomnia

Sleep related sexual behavior is a NREM parasomnia. There is limited awareness during the act, relative unresponsiveness to the external environment and amnesia for the event. May range from sexual vocalizations to intercourse and may be atypical for the patient in terms of partner or type of act. It is different from sleepwalking as there is more autonomic activation, sexual arousal and duration can exceed 30 minutes. It is till date poorly understood.

Sleep related hallucinations

Present with hypnagogic or hypnapompic hallucinations and complex nocturnal visual hallucinations. They are usually visual but other modalities can occur. There is association with mood, anxiety or psychotic disorders.

Sleep related dissociative disorder

Patient presents with nocturnal dissociative episodes. Prevalence is more in women than men. EEG shows wakefulness record.

Summary

In parasomnias the diagnosis relies on a comprehensive clinical evaluation. PSG and time-synchronized video recording may be indicated for cases that are associated with very frequent episodes, complaints of excessive sleepiness, unusual presentation, or injury to the individual or bed partner. Polysomnography also done for suspected seizure. Multiple polysomnographic studies performed over several nights may be required. Extensive neurological and psychiatric assessment may be considered for cases with medico-legal implications. Therapy should include education regarding patient and bed partner safety as well as the avoidance of known precipitating factors. Unlike the relatively benign course of the arousal disorders, RBD may be a harbinger of significant neurologic disease and these patients should undergo regular clinical surveillance for the subsequent emergence of neurodegenerative diseases.

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PSYCHOLOGICAL PROBLEMS IN CHILDREN

Sayandip Ghosh

Psychological problems which are prevalent in adults are also noted in children. However, the manifestations are somewhat different (eg. In depression adults show depressed mood but children present usually with irritable mood) and treatment modalities may also be variable to a certain extent. We shall deal with this group of problems a little later.

There are actually some psychological disorders which are noticed only in children and they can be classified as follows:-

- (i) Mental Retardation
- (ii) Learning Disorders
- (iii) Communication disorders
- (iv) Pervasive Developmental Disorders (PDD)
- (v) Attention Deficit Hyperactivity Disorder (ADHD)
- (vi) Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD).
- (vii) Tic Disorder
- (viii) Feeding and Eating Disorders of Infancy and Early Childhood
- (ix) Elimination Disorders
- (x) Separation Anxiety Disorder
- (xi) Selective Mutism

A special mention needs to be made about certain psychological problems which affect adolescents because they form a significant group whom we need to treat.

(I) Mental Retardation:

Definition :- Mental Retardation is defined as significantly subaverage general intellectual functioning with significant limitations in adaptive functioning that manifests itself before the age of 18 years. Intellectual functioning is measured by I.Q. (Intelligent Quotient) = Mental Age / chronological age X 100 Significantly sub average means I.Q. of approximately 70 or below. Adaptive functioning includes such behavior as communication daily living skills, socialization and motor skills based of I.Q. Mental Retardation is Classified into 4 groups

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- (1) Mild MR (I.Q. 50-70)
- (2) Moderate MR (I.Q. 35-40 - 50-55)
- (3) Severe MR (20-25 35-40)
- (4) Profound MR (below 20-25)

Development characteristics of Mentally Retarded Persons

Degree of MR	Preschool age (0-5)	School age (6-20)
Profound	Gross retardation; needs nursing care; Constant aid and supervision required	Some motor development present; may respond to minimal or limited training in self-help
Severe	Poor motor development; speech minimal; generally unable to profit from training in self-help; little or no communication	Can talk or learn to communicate; can be trained in elemental health habits; profits from systematic habit training; unable to profit from vocational training
Moderate	Can talk or learn to communicate; poor social awareness; fair motor development; profits from training in self-help; can be Managed with moderate supervision	Can profit from training in social and occupational skills; unlikely to progress beyond 2 nd grade level in academic subjects; way learn to travel alone in familiar places.
Mild	Can develop social and communication skills; minimal retardation in sensorimotor areas; often not distinguished From normal till later age	Can learn academic skills upto approximately 6 th grade level by late teens; can be guided toward social conformity.

Causes of Mental Retardation:

While the case is categorically understood in only half of the Cases of Mild MR, 75% of cases of severe MR have an identifiable definite cause. Among all children with MR, 2/3 have identifiable causes and in the remaining 1/3 a definite Cause cannot be ascertained.

- | | |
|---|--|
| Genetic Factors | - Down's syndrome, Fragile X syndrome, Prader-Willi syndrome, Cri-du-chat syndrome, Phenylketonuria, Tuberous sclerosis, Rett's disorder, Neurofibromatosis. |
| Prenatal factors | - Maternal chronic illness affecting normal development of foetus' CNS like uncontrolled diabetes, anemia, hypertension long-term use of alcohol and narcotic substances.
Maternal infection during pregnancy like Rubella or German Measles, Cytomegalovirus, Syphilis, Toxoplasmosis, Herpes Simplex and AIDS.
Maternal malnutrition
Usage of ce |
| Perinatal Factors | - Premature infants with LBW are at high risk for neurological and intellectual impairments that are manifest during school years.
- Infants who sustain intracranial haemorrhage or show evidence of cerebral ischemia are vulnerable to cognitive abnormalities.
- Infections in childhood like meningitis and encephalitis.
- Head injury like motor vehicle accidents but more head injuries are caused by household accidents such as falls from tables, staircase, open windows. We also need to look at child abuse. |
| Environmental and sociocultural deprivation | - Poor maternal medical and nutritional care
- Teenage pregnancies
- Poor postnatal care
- Exposure to toxic substances like lead
- Physical trauma
- Family instability moves
- Parental mental problems |

Education for the Child :-

This should include a comprehensive program that address adaptive skills training, social skills training and vocational training. Particular attention should be focused on communication. Group therapy has been successful when MR children learn and practice hypothetical real-life situations and receive supportive feedback.

Behavior, Cognitive and Psychodynamic Therapies:-

Behavior therapy has been used to shape and enhance social behavior and to control and minimize people's aggressive and destructive behaviors. Positive reinforcement for desired behaviors and benign punishment for objectionable behaviors have been helpful.

Family education :-

The parents may benefit from continuous counselling or family therapy and should be allowed opportunities to express their feeling of guilt, despair, anguish, recurring denial and anger.

Social Intervention**Pharmacological Intervention :-**

Aggression and self-injurious behavior
Stereotypical motor movements.
Explosive rage behavior

- Mild MR – Can achieve some degree of social and vocational success in supportive environment
- Moderate MR – Need high level of supervision but can become competent at occupational tasks in supportive settings.
- Severe MR – Behavioral approaches can help promote some degree of self-care, although most children need extensive supervision.
- Profound MR – Constant Supervision; even in adulthood, nursing care is needed

Learning Disorders:-

Learning disorders are diagnosed when achievement on standardized tests in reading, mathematics or written expression is substantially below that expected for age, schooling and level of intelligence. Reading Disorder (Dyslexia / alexia / reading backwards / developmental word blindness):

This is defined as reading achievement that is below the expected level for a child's age, education and intelligence; the impairment significantly interferes with academic success or daily activities. It is characterized by failure to recognize words, slow and inaccurate reading and poor comprehension

Tx:- Positive coping strategies include small, structured reading groups that offer individual attention and a child's ease in asking for help. A specific method developed by Samuel Orton urges therapeutic attention to mastery of simple phonetic units, followed by blending of these units into words and sentences. An approach that involves several senses is recommended. The rationale for this and similar methods is that children's difficulties in managing letters and syllables are basic to their failure to learn to read; therefore if they are taught to deal with graphemes they will learn to read. Mathematics disorder (Gerstmann syndrome, dyscalculia / acalculia). Impairments in 4

groups of skills have been identified in mathematics disorder:

- Linguistic skills (those related to understanding mathematical terms and to converting written problems into mathematical symbols)
 - Perceptual skills (the ability to recognize and understand symbols and to order clusters of numbers)
 - Mathematical skills (basic addition, subtraction, multiplication, division and following sequencing of basic operation)
 - Attentional skills (copying figures correctly and observing operational symbols correctly)
- (3) Disorder of written expression The components include poor spelling, errors in grammar and punctuation, poor handwriting

COMMUNICATION DISORDERS

- There are 4 specific Communication disorders:

Expressive language disorder is characterized by impairment in expressive language development demonstrated by scores on standardized individually administered measures of expressive language development substantially below those obtained from standardized measures of both non-verbal intellectual capacity and receptive language development. Here the child's skills are below the expected levels in vocabulary, the use of correct tenses, the production of complex sentences and recall of words.

Mixed Receptive – Expressive language disorder :-

Here children are impaired in both understanding and expressing language. It has been noticed that clinically significant receptive language impairment is always accompanied by expressive language dysfunction.

Phonological disorder :-

They are manifested by inappropriate or poor sound production or articulation. The diagnosis is made by comparison with the developmentally expected speech sounds for a person's age and intelligence. These are errors of sound production, substitutions of one sound for another (use of t instead of k) and omissions of final consonants.

Stuttering :-

This is a disturbance in fluency and time patterning of speech that is inappropriate for age. Stuttering consists of one or more of the following: sound repetition, prolongations, interjections, pauses within words, observable word substitutions to avoid blocking with audible or silent blocking.

Pervasive Development Disorders (PDD) :-

PDD is described as severe and pervasive impairment in developmental areas, such as social interaction and communication, or stereotyped behaviors, interests and activities.

TRIAD of Autism includes :-

- (a) Qualitative impairment in social interaction
- (b) Qualitative impairments in communication (both verbal and non-verbal)
- (c) Restricted, repetitive and stereotyped patterns of behavior, interests and activities. At least one of the above symptoms occur before 3 years.

PHYSICAL CHARACTERISTICS**Handedness :-**

Many autistic children have a failure of lateralization and remain ambidextrous at an age when cerebral dominance is established in normal children. They also have a higher incidence of abnormal dermatoglyphics (for eg. fingerprints)

Inter current physical illness :-

They have higher incidence of URTI, excessive burping, febrile seizures, constipation or loose bowel movements.

They may not have elevated temperature during infections, may not complain of pain verbally or by gesture, and may not show the malaise of all children. Their behavior and relatedness may improve to a noticeable degree during illness.

BEHAVIORAL CHARACTERISTICS :-**(1) Qualitative impairments in social interaction :-**

- They fail to show usual relatedness to parents & significant other.
- Lack of social smile.
- Abnormal or poor eye contacts.
- Lack of attachment behavior and a relatively early failure of person-specific bonding. They often do not seem to recognize the important persons in their life-parents, teachers, siblings – and show no separation anxiety.
- In school going age group they fail to make friends, their social awkwardness and inappropriateness is obvious and they fail to develop empathy.
- In late adolescence, those autistic persons who make the most progress often have a desire for friendship but their ineptness of approach and inability to respond to others approach, interests, feelings are major obstacles

P.D.D. includes :-

- (1) AUTISTIC DISORDER
- (2) RETT'S DISORDER
- (3) CHILDHOOD DISINTEGRATIVE DISORDER

(4) ASPERGER'S DISORDER**(2) Disturbances of Communication and language**

Gross deficits and deviances in language development are among the principal criteria for diagnosing autistic children.

- Delay in, or total lack of the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime).
- In individuals with adequate speech marked impairments in the ability to initiate or sustain conversation with others.
- Stereotyped and repetitive use of language or idiosyncratic language-noises like clicks, screeches or nonsense syllabus.
- Lack of spontaneous make – believe play or social imitative play appropriate to developmental level.
- Verbal autistic children say more than they can understand unlike normal children
- Pronominal reversal A girl asks "Do you want a toy?" When she means she wants it. 50% autistic children never have useful speech.

(3) Stereotyped behaviors

- Exploratory play is absent
- They cannot imitate and abstract pantomime
- Ritualistic & Compulsive phenomena are noted.
- Children often spin, bang, line up objects and become attached to inanimate objects.
- Movement abnormalities like stereotypes, mannerisms and grimacing are increased when the child is alone and reduces in structured environment.
- Resistance to transition or change is noted: moving to a new house, moving furniture in the room or a change of daily schedule may result in panic or temper tantrums.

(4) Instability of mood and affect**(5) Response to sensory stimuli**

- Over responsive or Under responsive to sensory stimuli
- They may ignore spoken language selectively directed at them and are often thought to be deaf.
- Heightened pain threshold.
- May enjoy music hum or sign a song before saying words.
- Some people love vestibular stimulation spinning, swinging, up- and-down movement

(6) Other behavioral symptom:

- Hyperkinesia
- Aggressiveness and temper tantrums
- Self-injurious behavior

Intellectual functioning:-

40% with infantile with autism have IQ below 50-55

30% have IQ is of 50-70

30% have IQ above 70

Unusual or precocious cognitive or visuomotor abilities occur in some autistic children these are called splinter functions or islets of precocity.

Eg; Idiot or autistic savants who have prodigious rote memories or calculating abilities

Treatment :-

- (a) Increase socially acceptable and prosocial behavior.
 - (b) To decrease odd behavioral symptoms.
 - (c) Aid in development of verbal & non-verbal communication. Educational and behavioral methods are the treatment of choice. Structured classroom training with behavioral methods is the most effective treatment.
- Parental training is necessary.
 - Facilitated communication is a technique where an autistic or MR child supposedly communicates with the aid of a teacher.
 - Pharmacological interventions are needed for aggression, severe temper tantrums, self-injurious behavior, hyperactivity, obsessive Compulsive symptomatology and stereotypies.
 - Haloperidol and Risperidone are often useful.

RETT'S DISORDER :-

Seen only in girls.

- Apparently normal prenatal and perinatal development and normal psychomotor development up to 5 months after birth followed by deceleration of head growth between 5-48 months.
- Loss of purposeful hand skills with development of stereotyped hand movements.
- Loss of social engagement
- Appearance of poorly co-ordinated gait

- Severely impaired expressive and receptive language development

CHILDHOOD DISINTEGRATIVE DISORDER :-

Apparently normal development for first 2 years of life followed by loss of previously acquired skills in following areas

- expressive / receptive language
- Social skills / adaptive behavior
- Bowel / bladder control.
- Play
- motor skills.

Abnormalities pertaining to tried of autistic features

ASPER GER'S SYNDROME

- Qualitative impairment in social interaction
- Restricted, repetitive, stereotyped pattern of behavior
- No clinically significant general delay in language development, cognitive development and age-related self-help skill, and adaptive behavior.

(V) Attention Deficit Hyperactivity Disorder (ADHD)

ADHD is characterized by persistent pattern of inattention and / or hyperactivity more frequent and severe than is typical of children at a similar level of development.

- Symptoms must begin before 7 years
- Symptoms must be noticed in at least two settings (eg. home and school)

3 types of ADHD:-

- ADHD, predominantly inattentive type
- ADHD, predominantly hyperactive impulsive type
- ADHD, Combined type

Symptoms of Inattention :-

- reduced attention to details
- careless mistakes
- failure to sustain attention to work or play
- does not seem to listen when spoken to
- cannot follow instructions and finish schoolwork.
- difficulty organizing task

- loses things necessary for tasks or activities
- easily distracted by extraneous stimuli
- forget daily activities

Symptoms of hyperactivity – impulsivity.

Hyperactivity :-

- fidgets with hands or feet or squirms in seat
- leaves seat in classroom and roams about
- often runs about or climbs excessively in situations in which it is inappropriate
- talks excessively
- always "on the go" as if "driven by a motor"
- has difficulty to engage in leisure activities quietly

Impulsivity :-

- answers out of turn
- interrupts / intrudes on other (butts into conversation and games)

Hyperactivity may occur in some situations (eg. School) and less in some situations (one-to-one interview, watching television) and may be less obvious in structured than in non-structured situations. School history and teachers reports are very important in assessing ADHD. Often behavioral problems or conduct problems occur with ADHD. Continuous performance task :-

Cognitive testing helps to confirm a child's inattention and impulsivity and includes continuous performance task where inattention is reflected by errors of omission and impulsivity by errors of commission

Cause & Prognosis:-

The cause of ADHD is highly variable. Symptoms may persist into adolescence or adult life; or they may disappear, or hyperactivity may disappear but decreased attention span and impulse control problems may persist. Over activity is the first symptom to remit and distractibility the last. Remission is rare before 12, usually occurs between 12-20

Treatment:- use of Psychostimulants

Dextro-amphetamine

Methylphenidate

Pemoline

Methylphenidate is most effective during school hours. Recent studies show it has few or no side effects Atomoxetine is a new alternative.

Psychotherapy :-

- Individual psychotherapy
- Behavior Modification
- Parental training.
- Treatment of any co-existing learning disorder

(vi) OPPOSITIONAL DEFIANT DISORDER AND CONDUCT DISORDER

These 2 disorders encompass DISRUPTIVE BEHAVIOR DISORDER ODD :

A person's asserting his or her own will and opposing others' will is crucial to normal development and is related to establishing autonomy, forming an identity and setting inner standards and control. The most dramatic example of normal oppositional behavior peaks between 18 – 24 months, the "terrible twos" when toddlers behave negativistically as an expression of growing autonomy. Pathology begins when this phase persists abnormally, authority figures over-react or such behavior recurs. The symptoms include negativistic, hostile and defiant behavior with following features.

- loss of temper
- often argues with people
- often actively defies or refuses to comply with rules.
- often deliberately annoys people.
- often blames others for his mistakes.
- angry and resentful
- spiteful and vindictive.

CONDUCT DISORDER :-

Affects boys more than girls under 18 years of age. Boys most commonly meet the diagnostic criteria by 10-12 years of age, whereas girls often reach 14-16 years before the criteria are met. The criteria include:

Aggression to people and animal -

Often bullies, threatens or initiates physical fight has used a weapon that can cause serious harm has been physically cruel to people / animals. Has stolen while confronting a victim (eg. mugging, armed robbery, purse snatching), has forced someone into sexual activity.

Destruction of property -

has deliberately engaged in fire setting, has destroyed property.

Deceitfulness or theft -

has broken into someone's house, building or car, often lies to obtain goods or favours, has stolen items of nontrivial value without confronting a victim, (eg. Shoplifting, but without breaking and entering).

Serious violation of rules

- often stays out at night despite parental prohibitions beginning before 13 years
- has run away from home overnight at least twice while living in parental home
- often truant from school, beginning before 13 years age.

Childhood Onset CD. - starts before 10 years

Adolescent Onset CD - starts after 10 years

Severity Could be Mild, Moderate, Severe.

Treatment :-

- Formation of an environmental structure with consistent rules and expected consequences can help control a variety of behaviors.
- Family therapy
- School settings can also use behavioral techniques to promote socially acceptable behavior towards peers and discourage covert antisocial behavior

(VII) TIC DISORDER

Tics are sudden, rapid, nonrhythmic, stereotyped motor movements or vocalizations. Tics can be motor or vocal. The most common type is Tourette's Disorder.

Tourette's disorder :

Georges Gilles de la Tourette first described a patient with what was known as Tourette's disorder in 1885 with a syndrome of symptom complex of multiple motor tics, coprolalia, and echolalia. The onset of the motor component of the disorder occur by 7 years; vocaltics by 11 years

- The initial tics are in the face and neck. Over time the tics tend to occur in a downward direction.
- Multiple motor tics occur.
- Most common initial symptom is an eye-blink tic, followed by head tic or facial grimace.
- Coprolalia includes repetitive uttering of foul words.
- Mental coprolalia.
- Many tics have aggressive or sexual content.

- OCD symptoms Co-exist in 90% cases

- Phenomenologically, tics resemble a failure of censorship, both conscious and unconscious, with increased impulsivity and inability to inhibit a thought from being put into action.

Treatment:- Pharmacotherapy

(VIII) Feeding and Eating Disorders of Early Childhood:

PICA:- Persistent eating of non-nutritive substances like paint, plaster, string, hair, cloth, dirt, animal feces, stones. The most serious complications are lead poisoning, intestinal parasites, anemia and zinc deficiency. It usually remits by adolescence.

(IX) Elimination disorder:

Encopresis, Enuresis, Psychosocial stressors appear to precipitate some cases of enuresis. In young children, the disorder has been particularly associated with birth of a sibling, hospitalization between 2-4 yrs, start of school, breakup of family because of divorce or death, move to a new domicile.

(X) Separation Anxiety Disorder :-

This is an excessive anxiety about separation from home or from those to whom a person is attached. Separation anxiety is a universal developmental phenomenon but excessive anxiety is termed as a disorder causing significant distress or impairment in important areas of functioning.

(XI) Selective Mutism

Consistent failure to speak in specific social situations (in which there is an expectation for speaking eg. At school) despite speaking in other situations. Selective mutism recently was hypothesized to be a form of social phobia, because the lack of speaking occurs only in specific social settings.

Children's and adolescent problems which have symptoms similar to adult's psychological problems

(1) Depression:

MDD is becoming more and more common among children and young adolescents. Children's mood are especially vulnerable to influences of severe social stressors, such as chronic family discord, abuse and neglect and academic failure. Bereavement often becomes a focus of psychiatric treatment when children have lost a loved one, even when a depressive disorder is not present. ADHD, ODD and CD may later lead to depression. Among school-age children in the community, 2% have MDD and is more common in boys than girls. Symptoms include :

- Depressed or irritable mood

- Loss of pleasure or interest.
- Failure to gain weight.
- Insomnia
- Psychomotor agitation or retardation
- Daily fatigue or loss of energy.
- worthlessness feeling or feelings of inappropriate guilt
- Recurrent thoughts of death

(2) Schizophrenia with childhood onset Symptoms include :

- Delusions
- Hallucinations
- Inappropriate speech and behavior
- Blunted or inappropriate effect
- Formal thought disorders

Adolescent substance abuse

- Alcohol
- Marijuana
- Cocaine
- LSD
- Inhalant (glue, aerosol, gasoline)

Substance use may be viewed on a continuum with

- EXPERIMENTATION
- MILDEST USE
- REGULAR USE WITHOUT IMPAIRMENT
- ABUSE
- DEPENDENCE

Drug Dependence includes

- Tolerance
- Withdrawal
- Greater use of substance than was intended
- Unsuccessful desire to reduce usage

- Reduction of social and occupational activities because of
- Substance use

Psychological dependence includes tolerance and withdrawal.

Substance abuse refers to a maladaptive pattern of substance use leading to clinically significant impairment or distress.

Substance intoxication refers to development of a reversible, substance-specific syndrome caused by use of a substance.

Substance – withdrawal refer to a symptom complex caused by cessation of usage of a drug.

There is a relation between substance use and a variety of high-risk behaviors including the use of a weapon, suicidal behavior, occasionally preoccupation with cults.

(4) Neurotic problems like

- Obsessive Compulsive Disorder Dependence on lucky number, colour washing and checking habits, talking to oneself, perfectionistic trend.
- Phobia.
- Adjustment problems
- Conversion Disorder

EVENTS

WPA International Congress, Beijing, China, from 1 to 5 September 2010

Prof. Tarek A. Okasha

Email: tokasha@internetegypt.com

Website: www.okashahospital.com

WPA website: www.wpanet.org

Addictions 2010, October 28-31, 2010, Sheraton National, Arlington, VA, USA*

www.addictions-conference.elsevier.com

13th European Symposium on Suicide and Suicidal Behaviour

Date 1st to 4th September 2010

Place Rome, Italy

Annual National Conference of Indian Association of Private Psychiatry

24th to 26th September 2010

Jammu

Annual National Conference of Indian Psychiatric Society

16th to 19th January 2011

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Website : www.ancips.com

Theme : Providing Mental Health care to All

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All the correspondence will be made with the author specified for that purpose. Manuscripts should be accompanied by a covering letter indicating that the paper is intended for publication, stating the number of figures and tables, and the number of words in the manuscript. The preference for the section cited in the *Journal* will be actively considered along with an assessment by the Editor and the editorial team to decide on the most suitable section for each submission, in consultation with the author. Papers not in accordance with the requisite format, or those which do not meet the requirements for one of the types of articles specified, will neither be sent for peer review nor be returned to the author. Suggestions for resubmission may be communicated to the authors. Manuscripts found unsuitable for publication will not be returned.

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9. My Voice: In this section multiple perspectives are provided by patients, caregivers and paraprofessionals. It should encompass how it feels to face a difficult diagnosis and what this does to relationships and the quality of life. Personal narratives, if used in this section, should have relevance to general applications or policies. Articles should underline the need to treat patients, rather than diseases, and to understand the impact such journeys may have on patients' carers and families. The word limit is 1000 words.
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Specific innovative/new ideas or newly emerging for the sections are actively encouraged.

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The manuscript should be arranged in the following order.

With each item beginning on a new page (i) title page (ii) abstract (iii) text (iv) references and (v) tables and/or figures. All pages must be numbered.

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Abstract

It should contain no more than 250 words for an original research paper and should be no longer than 150 words for brief research communication and case reports. The abstract for original research papers and brief research communication should be organized under the following heads: background, aim, methods, results, conclusions. Up to 5 key words should be given.

Text

The text should include 4 major sections: introduction, methods, results and discussion. The methods should present a detailed description of the nature of the study group, methods of recruitment, measurement and statistical techniques.

Data Analysis

An adequate description of statistical analysis is necessary, in a language that is comprehensible to the psychiatrist as well as the medical statistician. The procedure chosen should be both appropriate for the hypothesis tested and correctly interpreted. The statistical analyses should be planned before data are collected and full explanation given for any posthoc analysis carried out. The value of test statistics used (e.g. X^2 1) should be given along with their significance levels so that their derivation can be understood. Standard deviations, rather than standard errors of the mean, are required and should be specified and referred to in parentheses.

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Identity references in the text, tables and legends by Arabic numerals in superscript. References should be numbered consecutively in the order in which they are first mentioned in the text. References cited only in tables or figure legends should be numbered in accordance with the sequence established by the first identification in the text of the particular table or figure. The style of references is based on the formats used by the NLM in the Index Medicus (Available from URL: <http://www.icmje.org>) List the first three authors followed by et al., for example:

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Zubeita JK, Huguelet P, O'Neil RL, et al. Cognitive dysfunction in euthymic bipolar disorder. *Psychiatry Res* 2001; 102: 9-20.

Organization as the author

American Psychiatric Association (APA). *Diagnostic and statistical manual of mental disorders*. 4th ed. Washington, DC: APA; 1994.

Issue with a supplement

Lingjaerde O, Ahlfors UG, Been P, et al. The UKU side effect rating scale. *Acta Psychiatr Scand* 1987;76 (Suppl 334): 81-94.

Chapter in a book

Lezak MD. Assessment for rehabilitation planning. In: Meier ML Benton AL, Diller L (eds). *Neuropsychological rehabilitation*. London:Churchill Livingstone; 1987:41-58.

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 - Conflicts of interest declared
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General Policies

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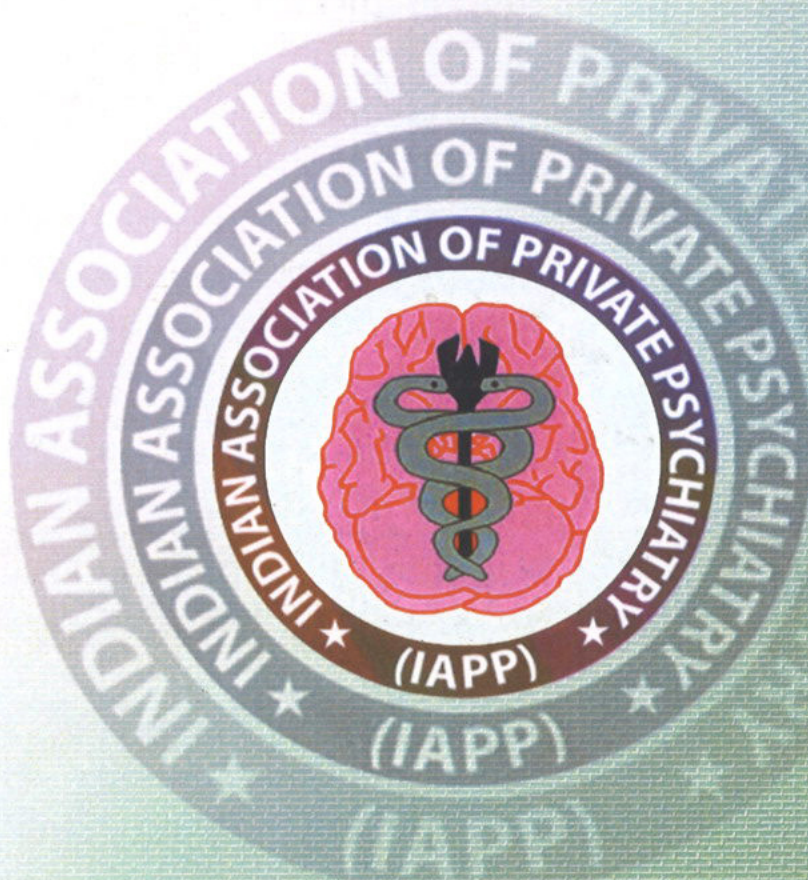
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