National Institute of Mental Health and Neuro Sciences
(Deemed University), Bangalore, 560 029. INDIA
OBSESSIVE COMPULSIVE DISORDER CLINIC

OCD

Patient Information Book

Dr. Y.C.Janardhan Reddy
Dr. Sumant Khanna
Dr. Suresh Bada Math
Dr. Ravi Philiph Rajkumar

National Institute of Mental Health and Neuro Sciences

Dr.Y.C.Janardhan Reddy. DPM, MD
Additional Professor of Psychiatry
NIMHANS, Bangalore
Phone:(office) 91-080-26995278
Email:jreddy@nimhans.kar.nic.in

Dr. Sumant Khanna, MD, PhD, MAMS, MRC Psych
Consultant Psychiatrist, New Delhi
Former Additional Professor of Psychiatry, NIMHANS, Bangalore

Dr.Suresh Bada Math. MD, DNB, PGDMLE
Assistant Professor of Psychiatry
NIMHANS, Bangalore
Phone:(office) 91-080-26995276
Email:sbm@nimhans.kar.nic.in

Dr. Ravi Philiph Rajkumar. MD
Senior Resident,
NIMHANS, Bangalore

National Institute of Mental Health and Neuro Sciences,
(Deemed University),
Bangalore, 560 029 INDIA

OBSESSIVE-COMPULSIVE DISORDER

Patient information brochure

YC Janardhan Reddy
Sumant Khanna
Suresh Bada Math
Ravi Philip Rajkumar

OCD Clinic,
Department of Psychiatry,
National Institute of Mental Health and Neuro Sciences,
(Deemed University), Bangalore, 560 029
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WHAT IS OCD?

Obsessive-compulsive disorder (OCD) is a common mental illness. Earlier it was considered as a rare illness, but studies have now shown that 2-3% of the population have OCD at some point in their life. Though OCD is a common illness, many who suffer from this illness do not seek treatment. In the west, less than 50% have contacted a psychiatrist for treatment and in India, even fewer numbers seek treatment for this illness. It occurs in all age groups. Sixty five percent develop their illness prior to age 25 years, some as early as 5 years. Less than 15% develop their illness after age 35 years. It is equally prevalent in both sexes, but more common in boys than in girls if the onset of illness is in childhood and adolescence. The main features of this illness are *obsessions* and *compulsions.*

Obsessions are certain thoughts, doubts, images or urges that occur in one's mind. These are unwanted, repetitive by nature. Most people with OCD realize that obsessions are senseless, irrational, or excessive, but they are unable to ignore or suppress them. They would attempt to resist and control them, but would not succeed. Obsessions cause significant distress and anxiety to the sufferers and as a result cause interference in their day to day functioning.

Compulsions are repetitive acts that the person is driven to carry out in spite of knowing that they are meaningless, unnecessary or excessive. Compulsions are usually in response to obsessions. For example, a person with fear of contamination washes hands repeatedly in order to ensure that his or her hands are clean. The person attempts to resist repeated hand-washing, but gives in to the urge so as to relieve himself or herself of the anxiety or discomfort. Persons with OCD often perform certain acts repeatedly to avoid some dreaded event or to prevent or undo some harm to themselves or others, for instance, touching the floor an even number of times to prevent an accident that one fears might occur to family members. They are aware most of the time that the activity is not connected in a logical or realistic way with what was intended to be achieved, or that it may be clearly excessive (as in the case of hand-washing compulsions), but cannot control them as they reduce anxiety at least transiently.

Some compulsions can be in the form of elaborate *'rituals'*. Rituals are a particular sequence of actions, which the person is compelled to carry out. On either changing the sequence, or missing out one of the actions, anxiety increases driving the person to repeat the set of actions all over again. This would lead to spending considerable time in carrying out even a simple routine activity such as washing hands.

What are not obsessions?

- The common usage of the word obsession as in, "he is obsessed with music" is not obsession as used in the context of OCD. Here the person indulges in the activity with complete will, has control over it and derives pleasure out of the activity.

- When one is fired from a job or loses someone close to them, it is natural to brood over the event. However, these thoughts are not considered as senseless or irrational, though they may cause some discomfort. Similarly, a person appearing for an examination may feel anxious and worry about the results, which could occupy considerable amount of his time. These thoughts, though unwelcome, are under his control and not experienced as senseless. The above experiences are obviously not obsessions.

Some common obsessions:

- ➔ Fear of getting dirty, contaminated or infected by persons or things in the environment.
- ➔ Blasphemous thoughts.
- ➔ Thoughts of harming or killing others or oneself.
- ➔ Doubts that a task or assignment has been done poorly or incorrectly.
- ➔ Recurring thoughts or images of sexual nature.
- ➔ Fear of blurting out obscenities.
- ➔ Fear of developing a serious life-threatening illness.
- ➔ Preoccupation to have objects arranged in a certain order or position.

Some common compulsions:

- ➔ Repeated hand-washing, taking unusually long time to bathe, or cleaning items in the house.
- ➔ Ordering or rearranging things in a certain manner.
- ➔ Checking locks, electrical outlets, gas knobs, light switches etc. repeatedly.
- ➔ Repeatedly putting clothes on, and then taking them off.
- ➔ Counting over and over to a certain number.
- ➔ Touching certain objects in a specific way.
- ➔ Repeating certain actions, such as going through a doorway.
- ➔ Constantly seeking approval (especially children)

Fear of contamination and washing and cleaning compulsions:

It is the most common obsession. The person feels contaminated and dirty even on carrying out routine chores such as handling door knobs, picking up fallen objects, using money handled by others or just passing by a garbage can. These fears and rituals are of extreme nature – the washing may consume many hours and may leave the hands raw. Also, they may spend hours keeping the house clean, or clean the bathroom repeatedly before taking a bath.

There are some who fear that the dirt and germs brought in by themselves or others would spread and cause harm to others. Hence, they avoid touching others till they have a bath or clean up the whole house after someone visits. The washing sometimes become highly ritualized such as scrubbing the hands in one particular way or bathing in a

particular order. When these acts are not performed as per the ritual they may become extremely distressed and anxious and repeat them all over again till they are satisfied or get tired.

Doubting and checking:

Persons with these obsessions have repeated doubts that something bad will happen because they have failed to check something thoroughly or completely. Their need to check repeatedly is driven by the possibility that something terrible will happen even though they recognize that the possibility is an extremely remote one. For example, they doubt that the gas knob is not turned off properly and as a result gas will leak and result in a fire accident. Common examples are, repeated checking of door locks, gas knobs, and electric appliances. Other common examples include, counting currency notes repeatedly, and going over a file or homework assignment (in the case of children) repeatedly to check for any possible errors. However, even after spending considerable time in checking they are rarely satisfied. Sometimes, they may seek reassurance from others to ensure that they have not committed any mistake that may prove to be dangerous. For a casual observer, they may appear very slow and inefficient, particularly at work. Children with checking compulsions are often seen as poor learners at school and may fall behind in studies. If one asks these patients, “When are you satisfied that the door is really locked?” Many would say that they are never completely satisfied. Some patients employ certain strategies to reduce the amount of time spent in checking. The most common is to limit the number of checks by counting. These patients often end up developing counting rituals, such as developing a system of good or bad numbers.

Need for symmetry and ordering / arranging:

Persons with these obsessions are usually seen as those who like to keep everything neat and tidy. But the need to be tidy would be a major preoccupation and take priority over carrying out other routine activities. They would want to keep objects in a particular order and get very much upset if they are out of place. They would not rest till they put back things in an order, as they would otherwise experience a sense of discontent or tension, than fear or anxiety. They may spend hours arranging the table for a meal or making a bed till satisfied that everything is in the right place.

Sexual and aggressive obsessions:

People with these obsessions have repeated thoughts or images of a sexual or aggressive nature. For example, sexual obsessions could be in the form of intrusive sexual images of family members and gods and goddesses. Aggressive obsessions are usually about urges to harm loved ones, usually family members. Persons suffering from sexual and aggressive obsessions suffer from intense guilt and anxiety. Their constant fear is that they might actually act out on their obsessions. As a result, they tend to seek reassurance from others just to make sure that they are not really capable of doing what they are worried about.

Counting and repeating compulsions:

Children with OCD may spend hours unnecessarily counting certain things. They may count the number of people on the street, the bars on a window, the tiles on the floor and repeat it. Some may have to count up to a certain number before initiating or completing a task. They may have to count the number of steps taken to cross a particular distance. Persons with repeating compulsions would repeat a certain task several times, such as, circle a chair or shuffle certain number of times before sitting in the chair.

Ruminations:

Persons with these obsessions spend a great deal of time thinking about issues that they consider irrelevant but would be unable to stop them. Ruminations generally involve prolonged inconclusive thinking about unanswerable questions or endless doubting over ordinary matters. They may also involve the activities of the day or conversations that they have had during the day.

Hoarding:

It is not uncommon for people to keep old or used objects such as clothes, containers and paper for some future use. But those suffering from OCD may carry this to an extreme. Family members and friends often complain that the person can no longer function because of the sheer accumulation of unwanted material in their room and office. These patients are compelled to check their possessions over and over to make certain nothing is missing. They would be extremely anxious if told to discard some used objects.

CAUSES OF OCD

The exact cause of OCD is still unknown. However, there are many theories of causation of OCD. These are broadly classified into biological and psychological theories.

Biological theories:

At this stage, it is fairly clear that OCD has a biological basis and is caused by certain biochemical changes occurring in the brain. These changes involve neurotransmitters, which are chemical substances that aid in the transfer of messages across nerve cells. A neurotransmitter called serotonin is said to be deficient in the brains of individuals suffering from OCD. The most compelling evidence implicating involvement of serotonin in OCD is the efficacy of drugs belonging to the class of serotonin re-uptake inhibitors (SRIs). These drugs increase the concentration of serotonin in the brain and thus ameliorate the symptoms of OCD.

Further evidence that OCD is a disorder of biological origin comes from its association with some neurological disorders. Individuals with encephalitis, tic disorders and chorea are more likely to develop OCD. Moreover, brain imaging studies using Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET) have show

abnormalities in some regions of the brain, such as, the frontal lobes, cingulum and basal ganglia. A circuit connecting these brain regions is thought to be dysfunctional in individuals suffering from OCD.

It is now believed that OCD is a heritable disorder in some patients. About 3-7% of first-degree relatives (parents, siblings and children) of individuals suffering from OCD have similar illness. OCD is also genetically related to a neurological disorder called 'Tourette disorder'. The relatives of individuals suffering from OCD have, not only a higher propensity to develop OCD, but also Tourette disorder. Similarly, the relatives of individuals suffering from Tourette disorder have a higher propensity to develop OCD. It should, however, be noted that OCD is a heritable disorder in only a minority of individuals. Most individuals suffering from OCD do not have any relatives suffering from the same illness.

Role of stress:

Stress of any kind, by itself, does not cause OCD, but can precipitate the onset of OCD in vulnerable individuals. But, stress is well known to worsen pre-existing symptoms. The common precipitating stressful life events include separation from loved ones, major life changes such as loss of a job, problems at work, pregnancy, childbirth, and abortion.

Role of personality:

There are some individuals who are very perfectionistic, rigid and meticulous in what they do. They are excessively preoccupied with order, precision, rules and organization. These individuals are said to suffer from obsessive-compulsive personality disorder, but not from OCD. It was earlier believed that this type of personality predisposes one to develop OCD. However, it is now clear that the presence of this personality disorder need not predispose an individual to develop OCD. In fact, most patients with OCD do not have obsessive-compulsive personality. On the contrary, individuals with low self-esteem, who are easily hurt by criticism, and who display anxiety in interacting with others and in participating in social situations such as parties and marriages are comparatively more likely to have OCD.

Psychological theories:

For many years psychiatrists believed that OCD developed in individuals who had been brought up by rigid and strict parents. It is now clear that such is not the case and those psychological conflicts and deep-rooted problems of early childhood do not cause OCD.

According to the learning theory, obsessions and compulsions develop in two stages. In the first stage, a neutral stimulus such as a thought or an image becomes associated with fear because it is paired with an event that by its nature provokes discomfort or anxiety. Through this association, thoughts and images become capable of producing distress. In stage two, the patient develops avoidance responses such as avoiding using knives because of fear of hurting others, because avoidance reduces anxiety. However because

many of the fear-provoking situations cannot be avoided, compulsions develop to prevent or reduce discomfort. Because avoidance and compulsions reduce anxiety to some extent, they tend to persist thus establishing a vicious cycle difficult to break. Evidence supporting the acquisition of obsessions is inadequate, because most patients do not recall any specific aversive events associated with symptom onset. But there is enough evidence to suggest that obsessions are maintained because of avoidance and compulsions.

Other illnesses and OCD

OCD often co-exists with other psychiatric illnesses. Some of those that commonly occur with OCD are depression, other anxiety disorder, tic disorders, schizophrenia, and alcohol and drug addiction. The anxiety disorders that co-occur with OCD are panic disorder, phobias and generalized anxiety disorder. Recognition and treatment of these co-existing disorders is important because, if they are not treated, the OCD by itself may not respond adequately to treatment. Also, co-existing illnesses increase the suffering in already distressed OCD patients and cause more disability.

Depression often occurs secondary to distress caused by obsessions and compulsions. Depressed patients have lowering of mood accompanied by a marked reduction in energy and activity. The person loses the ability to enjoy and as a result loses interest in recreational and other activities. They take gloomy view of themselves, of the world around them and of the future. They underestimate their abilities and achievements. They believe that there is no use of living further and often harbor suicidal ideas.

Patients with panic disorder have attacks of intense anxiety characterized by extreme fearfulness, increased awareness of their heartbeat, shortness of breath, excessive sweating, tremors of hands, churning sensations in stomach, and fear of dying and / or fear of going mad. A type of phobia called agoraphobia often occurs secondary to panic attacks. Phobic patients have irrational fears about an object or situation and avoid these anxiety-provoking situations. Agoraphobic patients have fears of places or situations from where easy escape or help may not be available in the event of having a panic attack. The most common feared situations include crowded places such as marketplaces, shops, crowded buses, and going out alone or traveling away from home.

Patients with social phobia avoid social situations because of marked fear of being the focus of attention or fear of behaving in an embarrassing way. Generalized anxiety disorder patients are always tense and worry excessively. They have continuous feelings of apprehension about everyday events and problems.

Patients with schizophrenia have delusions and hallucinations. They harbor morbid beliefs, which are not shared by friends or family members. They may believe that their thoughts, actions and emotions are controlled by others. Some may believe that some outside agency, force or people insert, withdraw or broadcast their thoughts, against their wish. They may also become suspicious of others' intentions and actions. They hear voices / see things that others do not hear or see. When OCD co-exists with

schizophrenia, it is vital to recognize and treat it, as otherwise schizophrenia may not respond adequately to treatment.

Nearly 20-30% of OCD patients start taking alcohol to relieve anxiety caused by obsessions. They tend to drink large amounts of alcohol daily, which often leads to dependence. They have difficulty in cutting down or stopping drinking, and if they do so, they have discomfort due to withdrawal symptoms such as tremors, anxiety, sleeplessness, restlessness and increased sweating.

Obsessive-compulsive spectrum disorders

While obsessions and compulsions are seen primarily in OCD, they may also be found in other psychiatric conditions. These conditions share certain characteristics with OCD such as clinical features, course of illness, causative factors and response to treatment. They include body dysmorphic disorder, trichotillomania, Tourette syndrome, eating disorders, pathological gambling and compulsive buying among other disorders. These OC spectrum disorders may occur independently in an individual or may be present along with OCD.

In body dysmorphic disorder there is excessive preoccupation with an imagined defect in one's physical appearance. For e.g., A "crooked" nose, "thinning" hair or "scarred" skin. If a slight abnormality is present, the concern shown is markedly excessive. These individuals tend to spend a lot of time in front of the mirror checking the imagined defects repeatedly, apply make-up to hide the imagined flaw and make repeated visits to doctors especially plastic surgeons for repair of their defect.

Trichotillomania or compulsive hair pulling consists of repetitive pulling out of one's own hair. A sense of tension is experienced just before hair pulling and pleasure or relief occurs during the behavior. Any body hair may be targeted, though most often scalp hair is involved.

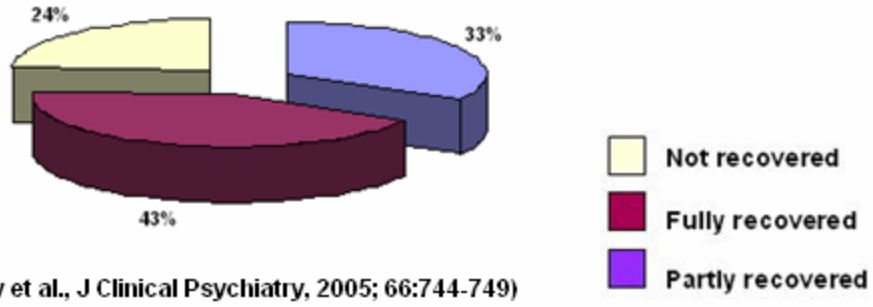
In Tourette syndrome patients have involuntary movements of various body parts such as head and shoulder jerking, eye-blinking etc. In addition, they tend to make certain sounds (e.g., Throat clearing, screaming, hiccups) and utter obscenities involuntarily.

Eating, shopping and sometimes even gambling are considered normal and routine experiences for most people. However, when these behaviors become excessive, distressing and difficult to control, they are called eating disorders, compulsive buying and pathological gambling respectively.

Course and outcome of OCD

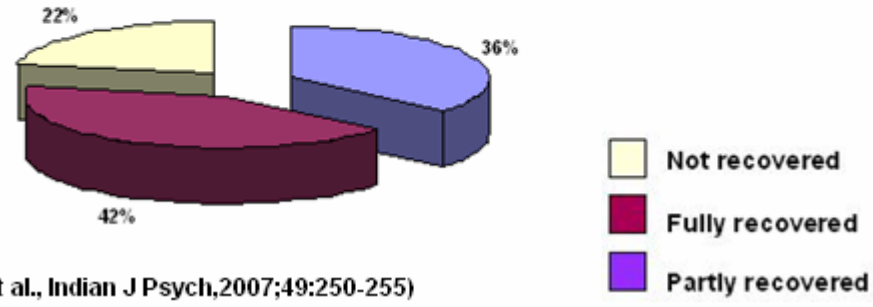
It has often been stated that OCD is a chronic illness and that few patients recover from it. However, research by several OCD specialists suggests that this is not the case, and

Recovery of OCD over 11 to 13 years



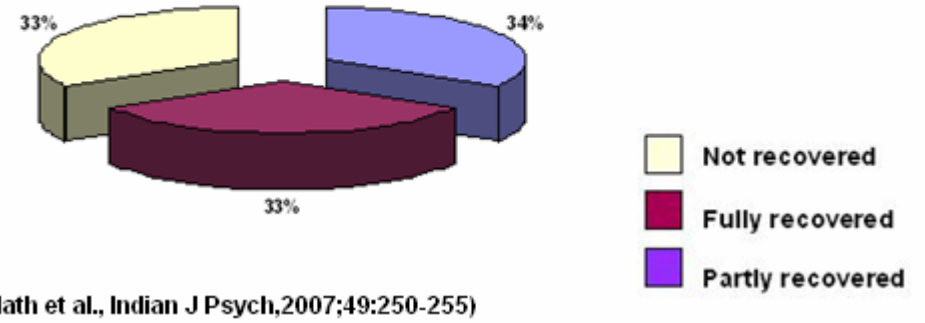
(Reddy et al., J Clinical Psychiatry, 2005; 66:744-749)

Recovery of predominantly obsessive OCD over 5 years



(Math et al., Indian J Psych,2007;49:250-255)

Recovery of mixed OCD over 5 years



(Math et al., Indian J Psych,2007;49:250-255)

that a good proportion of patients with OCD recover well. Here are some of the findings of two studies done at NIMHANS to study the long-term outcome of patients being treated by us for OCD.

In the first study, 75 patients with OCD were followed up over a period of 11 to 13 years and examined, to see what had happened to their illness. It was found that 57 of them (76%) were doing well: 32 (43%) had no OCD, and a further 25 (33%) were partly recovered, meaning that their symptoms had shown a good improvement and were not interfering in their lives. Most of these patients were on treatment, but a total of 28 patients (37%) were free of OCD despite having discontinued treatment.

In the second study, patients who had only obsessions were compared with those who had both obsessions and compulsions and followed up after 5 years to know their outcome. Again, it was found that 78% of the patients with obsessions, and 66% of the patients with "mixed" OCD, were doing well. 33% of the former patients and 21% of the latter were free of OCD and not taking any medications.

Therefore, our research suggests that patients with OCD may not have such a bleak course as was once thought, and that a majority of them do well in the long run. A minority continue to do well despite not taking treatment, suggesting that such patients have truly "recovered" from the illness.

OCD in children and adolescents

OCD was once thought to be rare in children and adolescents. This is because its manifestations in childhood may be subtle and difficult to recognize, and also because OCD symptoms may be confused with normal behaviours and superstitions that are a part of childhood, such as "lucky numbers" or bedtime rituals. However, we now know that up to half of adult OCD patients may have experienced their first symptoms in childhood and adolescents. Studies done in India as well as around the world suggest that it may affect 1-4% of children. Symptoms may begin in early childhood (around 6-7 years) or in adolescence, and are commoner in boys than in girls.

OCD is diagnosed in children using the same methods as in adults. The important differences are that:

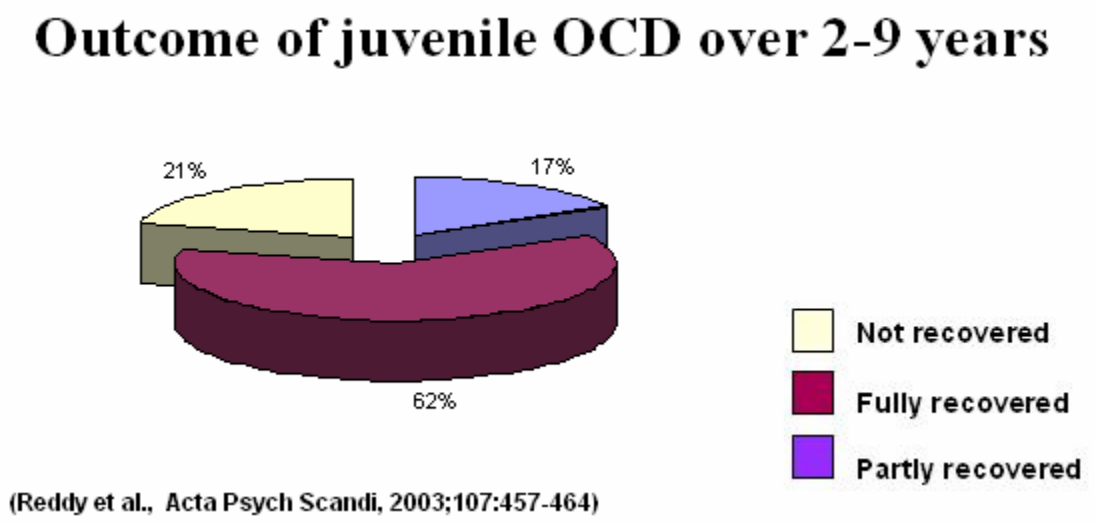
1. Children may not find their behaviours unreasonable, whereas most adults will usually acknowledge that their symptoms are irrational.
2. Children may not be able to express the exact nature of their thoughts and fears. Sometimes, they may say that they perform compulsions until they feel "just right" or "satisfied", rather than to diminish anxiety or distress, or describe a vague sensation that "something bad" will happen if they do not carry out their compulsive behaviours.

Common symptoms in childhood OCD are similar to those in adults, and include obsessions related to contamination, aggressive themes, a need for symmetry and

exactness, and sexual and blasphemous thoughts, and compulsive washing, repeating, ordering, counting It is important to note, though, that up to one-third of children may have “miscellaneous” obsessions and compulsions that do not fit into these categories. Children often may not report these symptoms and may try to conceal them, as they find them embarrassing. Often, the first indicator of OCD may be slowness, pending excessive time in routine activities, avoiding certain situations, social withdrawal, or difficulties in academics. Children with these symptoms should be evaluated to identify OCD, as well as to differentiate it from conditions such as depression, anxiety or learning disability.

As in adults, up to two-thirds of children with OCD may suffer from additional psychiatric disorders. These include depression and anxiety disorders, as in adults. Some specific conditions that may be seen in children and adolescents include separation anxiety disorder, attention-deficit and hyperactivity disorder (ADHD), conduct disorders, tic disorders and Tourette’s syndrome.

It was previously believed that OCD in children was a severe form of the illness, and that most children did not recover. However, research done at NIMHANS and elsewhere suggests that this is not the case.



Follow-up of patients with OCD in childhood up to 9 years revealed that 62% of them were free of OCD in the long run. A further 17% had mild symptoms that did not interfere in their lives, and only 21% continued to have OCD.

Treatment of childhood OCD is almost similar to adult OCD. Both medications and behavior therapy are effective, and are described in detail below.

Drug treatment of OCD

Till the 1980s there were no effective drugs which were available for the treatment of OCD. However since then a class of drugs has been found to be effective in the treatment of this disorder, and newer drugs belonging to this class are also being found effective. This group of drugs is the Serotonin Re-uptake Inhibitors. There are various chemicals or neurotransmitters in the brain, and serotonin is one of them. These drugs act to increase the amount of serotonin available for the nervous cells in the brain. This corresponds to the known serotonergic hypothesis for the etiology of OCD (See the section on Etiology). Drugs acting on other neurotransmitter sites, such as dopamine (anti-psychotics), noradrenaline (other anti-depressants) or GABA receptor complex (sedative hypnotic) are not effective. The oldest member of this group is clomipramine. More recent additions to this group, and more selective in their mechanism of action, include fluoxetine, fluvoxamine, sertraline, paroxetine, citalopram and escitalopram.

These drugs also belong to the larger category of drugs called anti-depressants. There has for a long time been some controversy whether these drugs treat depression or OCD. However, the consensus opinion at this point of time is that although they have potent actions on depression, they also have independent anti-obsessional properties. So whether you are depressed or not, and in spite of the broader classification of these drugs, these drugs will work for you, if you have OCD. These medications are also useful in treating a number of disorders that can co-occur with OCD. These include hypochondriasis, social anxiety disorder, generalized anxiety disorder, and premature ejaculation.

Table 1 Prescribed doses of drugs in obsessive–compulsive disorder

Medication	Starting dose (mg)	Optimum dose range (mg)
Fluoxetine	20	40–80
Sertraline	50	150–200
Paroxetine	20	40–60
Fluvoxamine	50	200–300
Clomipramine	25	150–250
Citalopram	20	40–80
Escitalopram	10	20–30
Venlafaxine*	37.5	225–300

*Serotonin–norepinephrine reuptake inhibitor.

Math & Reddy, Int J Clin Pract, 2007; 61:1188-1197

Choice of a specific drug is arbitrary, and more often dictated by the side effect profile and the prescriber's comfort, than by evidence that any one of the Serotonin Reuptake Inhibitors are more effective than the other. There is some evidence that clomipramine may be slightly more effective than other medications; however, because of its higher likelihood of side effects, it is usually used when at least one other medication has not been effective.

The table above summarizes the drugs commonly used in OCD and the doses usually prescribed. Apart from clomipramine, most of the other medications have very similar side-effects. Most of these medications are given in the evening as a single dose, after dinner. The exceptions are fluoxetine and sertraline, which is given in the morning as it may cause disturbed sleep, and fluvoxamine which is usually given twice daily. Taking medications with food may reduce some of the side effects, such as nausea or diarrhoea. Some patients taking these medications experience an initial worsening of anxiety or restlessness for the first few days or weeks of treatment. Most of the side effects mentioned in the table 2 are usually mild and settle down by themselves over a few weeks; if they are persistent and troubling, please consult your doctor.

Table 2: Following are the side effects of SRIs

Fluoxetine	Nausea, diarrhea, dyspepsia, anorexia, headache, insomnia, somnolence, anxiety, agitation, tremors, akathisia, asthenia, yawning, sweating and delayed ejaculation
Sertraline	Nausea, diarrhea, dyspepsia, anorexia, headache, somnolence, dizziness, yawning, delayed orgasm
Paroxetine	Nausea, vomiting, headache, insomnia, sedation, dizziness, tremor, dry mouth, constipation, decreased appetite, asthenia, malaise, sweating, restlessness and delayed ejaculation.
Fluvoxamine	Nausea, headache, insomnia, somnolence, dizziness, dry mouth, asthenia, sweating, nervousness and constipation
Clomipramine	Dry mouth, constipation, urinary hesitancy, blurred vision, tremors, sedation, dizziness, tachycardia, orthostatic hypotension, sexual dysfunction, seizures and delirium
Citalopram	Nausea, headache, insomnia, somnolence, dizziness, sweating, fatigue and delayed ejaculation
Escitalopram	Nausea, headache, insomnia, dizziness, sweating and fatigue
Venlafaxine	Nausea, headache, insomnia, somnolence, dizziness, dry mouth, asthenia, sweating, nervousness, increased blood pressure, decreased libido and delayed ejaculation

Math & Reddy, Int J Clin Pract, 2007;61:1188-1197

Clomipramine is usually reserved for patients who are not responding to one of more of the other medications. It must be used with caution in patients with certain medical problems, such as glaucoma, prostatic enlargement, epilepsy or cardiac disorders; in such cases, your doctor will probably prescribe clomipramine only after consulting a specialist in the concerned disorder. Seizures are very uncommon except at doses of 250 mg/day.

There is no clear-cut guideline as to how long drug therapy needs to be continued for. There are reports that these drugs are effective for periods as long as 1-2 years, but when one should stop treatment is not clear. In some small studies, relapse rates varied from 60-80% after drug therapy was stopped. These are definitely high. However there are no studies giving us information on combination of drug and behavior therapy, and discontinuation. If you remain relatively well, it is likely that your treating psychiatrist will try and gradually stop your medicines after 1-2 years, and see if symptoms reappear. If you remain symptom free, then you do not need to take drugs. Otherwise the drugs will have to be reinstated. It is unfortunate that OCD is a chronic illness, and that often the treatment lasts for a long period of time. It can be compared to diabetes or high blood pressure in this medical model.

However attempts can be made to decrease your dosage after you have shown adequate improvement. This will be done in small steps every 1-3 months, to about 60% of the dose to which you had shown response, 6 months to a year after initiating therapy.

Unfortunately, there are a significant percentage of patients (about 40%) who do not respond to single drug therapy. If behavior therapy is also used as an adjunct, this figure comes down to about 20-30%. For this group of patients we have the option of adding other drugs to your ongoing treatment. These medications are known as "augmenting agents". The table below describes some of the common augmenting agents. Your treating psychiatrist will give you additional information in this regard, once the need for such treatment arises. Sometimes other medications will be recommended; this will be done only in exceptional circumstances and after explanation by your doctor.

Table 3 List of augmenting agents and dosage prescribed in obsessive–compulsive disorder

Sl no.	Medication	Optimum dose range (mg)
Antipsychotics		
1	Risperidone*	2–4
2	Quietapine*	100–200
3	Haloperidol*	5–10
4	Olanzpine*	5–10
5	Pimozide	4–8
Benzodiazepines		
1	Clonezepam	2–4
Mood stabilisers		
1	Lithium	300–600
Anxiolytics		
1	Buspirone	30–40
Antiglutamatergic		
1	Riluzole	50–100

*Placebo-controlled studies.

Math & Reddy, Int J Clin Pract, 2007; 61:1188-1197

In spite of our best efforts at vigorously treating OCD, a small percentage of patients do not improve. Psychosurgery has been advocated as the last treatment of choice in the refractory OCD patient. However, psychosurgery gives improvement rates of only 30-50%, is associated with potentially serious side-effects, and can be tried only as a "last resort" when both medicines and behavior therapy have failed. The procedure is also not widely available, and is used only by experts in the field.

Behavior Therapy for Obsessive-Compulsive Disorder

What is behavior therapy?

Behavior therapy comprises of a variety of techniques used to modify or replace maladaptive behaviors with more adaptive behaviors. Obsessions and compulsions seen in OCD are examples of maladaptive behaviors as they cause significant distress and interfere with normal functioning of an individual. Behavior therapy helps to remove obsessions and compulsions and thereby ameliorate the distress.

In treating OCD several behavior therapy techniques are used. Of them, "Exposure and Response Prevention", is the most effective and widely used technique. It is effective in 60-70% of patients suffering from OCD.

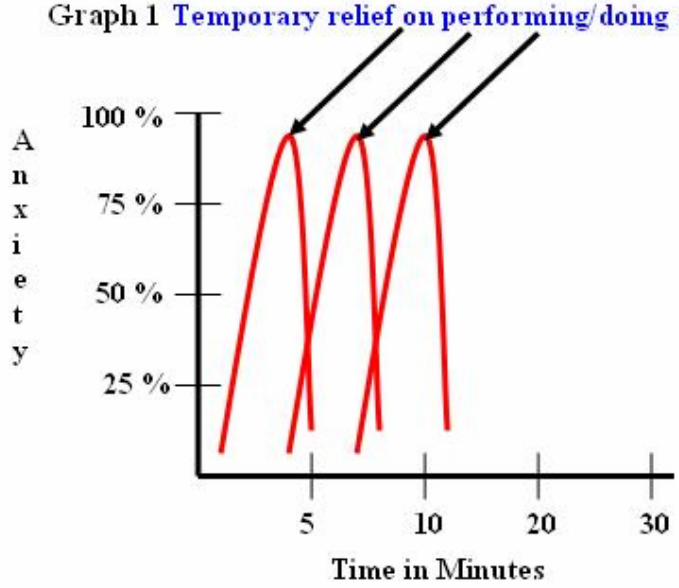
The rationale behind behavior therapy:

We know that most patients suffer from both obsessions and compulsions. Compulsions are performed to reduce the anxiety or discomfort associated with obsessions. Because the compulsions succeed, even if momentarily, in reducing anxiety, the compulsions are reinforced and are more likely to occur again in response to obsessions or certain situations which trigger obsessions. In the due course of time, for most patients, the compulsions which were originally employed to reduce the distress, themselves become a source of great discomfort. To put it simply, the obsessions lead to compulsions, and because the compulsions reduce the anxiety due to obsessions, they tend to persist establishing a vicious cycle difficult to break.

The "Exposure and Response prevention" technique based on the principle of "habituation" of emotions breaks this vicious cycle. What then is habituation? It is based on a simple principle that irrational fears and behavior disappear upon repeated exposure to the sources of fear and anxiety. By repeated and prolonged exposure, the individual gets habituated or used to the anxiety or discomfort to the point where the sources of fear lose their ability to provoke any anxiety, fear or discomfort. However, patients with OCD tend to handle their fear and anxiety by indulging in compulsions and active avoidance of all those situations that could trigger obsessions. On the contrary, in behavior therapy, patient is encouraged to gradually expose oneself to the anxiety-provoking situations and get habituated to the discomfort. And also, the patient is encouraged to not avoid any situations and indulge in compulsions. By preventing oneself from performing compulsions, the anxiety associated with obsession gradually dies on its own. Once the patient get used to anxiety the obsessions and compulsions also gradually disappear.

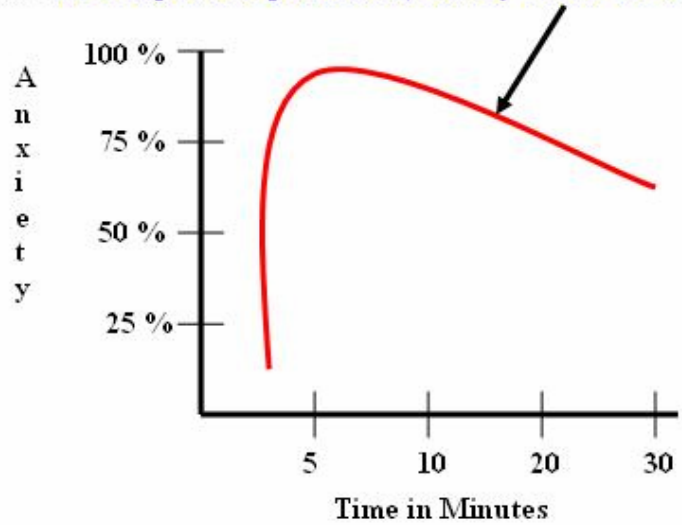
Take for example, the patient who washes hands repeatedly whenever he touches door-knobs because of the fear of contamination. In behavior therapy, the patient is encouraged to tough the door-knobs but prevented from hand washing .By doing so. The patient's

Graph 1 Temporary relief on performing/doing compulsions.



If patient performs compulsions in response to anxiety related to obsession, than he gets temporary relief. But he has to perform compulsions whenever he gets these obsessions.

Graph 2 No compulsions performed, anxiety comes down slowly (Habituation).



If a patient doesn't perform any compulsion in response to obsession, than anxiety comes down slowly on its own which is known as **habituation**. Then he doesn't require performing compulsions whenever he gets these obsessions.

anxiety shoots up but gradually comes down on its own and the patient gets used to it. On the other hand, if the patient indulges in hand washing. Anxiety drops down quickly not allowing the person to get used to it. Result, his or her fear of contamination persists and the person has to indulge in time consuming and distressing compulsions to get rid of the fear of contamination (Graph – 1). The only way then to break this vicious cycle is to expose but not to wash hands. By such repeated exposures, the fear of contamination gradually disappears and hence the compulsion of hand-washing also (Graph – 2)

Analysis of the symptoms and implementation of treatment

1. The first step is careful and detailed documentation of all the obsessions and compulsions.

2. Having done that, all the objects and situations that provokes obsessions and compulsions. Are identified and arranged in a hierarchy of situations from the least anxiety provoking to the most anxiety provoking ones.

3. The information is also obtained about all the objects and situations that the patient avoids to control rituals. For example, a patient may avoid public toilet to prevent having to extensively wash his or her body or clothes. Like objects and situations, certain thoughts and images can also trigger anxiety, panic or discomfort and lead to ritualistic behaviors. For example, blasphemous thoughts may get triggered in a person upon seeing photographs of gods and goddess and visiting temples. To escape from the anxiety the person may end up avoiding temples and praying.

4. In some patients the obsessions and compulsions occur only in home It is very vital to have this information as the treatment has to be accordingly entirely home based, and with full cooperation of other family members.

5. Finally, in some patients rituals are reinforced by family members ‘co-operation is sought to implement the treatment.

It is important to understand at the outset, that the treatment causes discomfort and that one should be prepared to go through some discomfort to obtain relief ultimately. The speed of habituation of emotional responses varies from person to person. Some may require lesser time (e.g. 30 min) of exposure while others may require repeated long exposures (1-2 hours) before any diminution of the anxiety occurs. Usually the compulsions and rituals are the first to respond and the obsessions take longer to “wear out”. Most show response between 10-12 hours of exposure and response prevention. For a successful outcome, motivation to get well and withstand the discomfort in initial sessions is vital.

REMEMBER THESE STEPS IN ERP

(Adapted and modified from Schwartz et al. 1998)

Step 1: Relabel

Recognize the intrusive thoughts and urges as due to a medical illness called OCD.

Step 2: Reattribute

Realize that the intrusive thoughts or urges are caused by certain biochemical imbalances (reduced level of serotonin) and malfunctioning circuits in the brain. They are "false brain messages". Remember, "It's not me, it's the OCD."

Step 3: Refocus

Work around the OCD thoughts by not giving in to a compulsion.

Practice ERP daily: In ERP key to success is practicing it daily. Patients should continue with the ERP activity regularly until their anxiety or discomfort is significantly decreased.

Do not avoid doing things: Patients with OCD usually avoid anxiety provoking situations or postpone their activities, which will keep their OCD alive.

Do not substitute compulsions: By substituting one compulsion for another, the very purpose of ERP is not served, as habituation will not occur to the anxiety (Graph – 1).

Avoid using any anxiety reducing techniques: Anxiety reducing techniques come in the way of habituation. Staying with the anxiety until it reduces substantially or disappears allows habituation to occur. (Graph – 2)

Expectation: Keep realistic expectation (Graph - 4), unrealistic expectation (Graph – 3) will come in the way of ERP.

Step 4: Revalue

This is the natural outcome of the first three steps. Successful practice of these steps results in revaluing obsessive-compulsive behaviors as worthless distractions to be ignored.

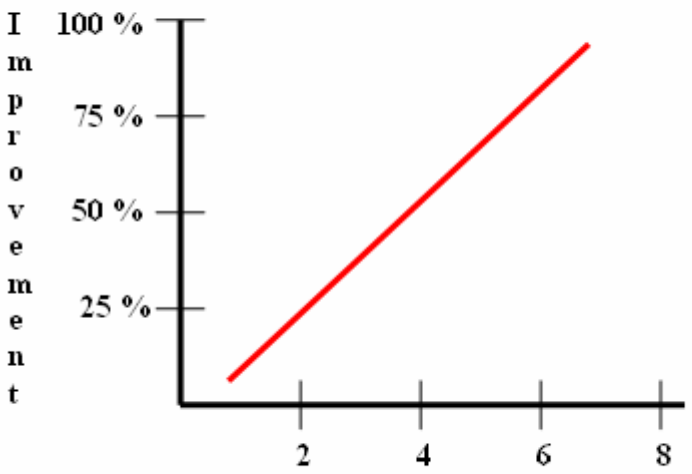
The role of family in the treatment of OCD

Our clinical experience suggests that the cooperation and support from the family often play a vital role in the treatment of OCD. OCD rarely leaves the family system unaffected. Marital discord, divorce and separation are common results of the stress that OCD puts on family members. Some families blame themselves for their child or spouse's illness. Family's sense of guilt and shame may be further reinforced by the advice from friends and relatives who often tell them that the patient is "not ill, just going through a bad phase", and more discipline and attention is the solution to the patient's problems. The family is often uncertain whether the rituals are part of an illness or willful behaviors for attention and control. Family responses to OCD are of three patterns: the accommodating, antagonistic and split family.

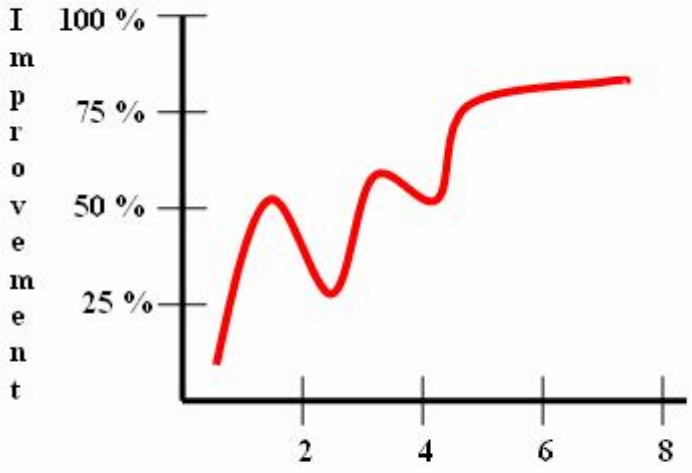
Accommodating families are usually overinvolved, permissive, and intrusive in relating to the patient. Family members often join in and help in patient's rituals to reduce tension in the family. This is not only counterproductive for the patient but also creates tension in the family. On the other hand, antagonistic families refuse to involve themselves in patient's problems. They are rigid, detached, hostile, critical and punitive. Anger, conflict among family members and on occasion's physical violence are common in such families. In the split family, some are overinvolved and the others are critical, hostile and uninvolved. It is clear that these three commonly seen family responses to OCD are not conducive for recovery and treatment of OCD. Hence, the involvement of family members in the treatment of OCD is necessary, particularly in the implementation of behavior therapy and monitoring of drug administration.

Patient and a family member (who can be a co-therapist in ERP) can learn about principles and techniques of ERP. Family members can assist the patient in graded exposure and response prevention. This would help outpatient ERP that can be practiced at home. Family members should be aware that unrealistic expectation **(as illustrated in Graph 3)** might result in disillusionment and poor adherence to therapy. On the other hand, improvement occurs in a slow fluctuating manner **(as illustrated in Graph 4)** and this realization would help families appreciate the gains that occur over the course of therapy.

Graph 3. Expectation



Graph 4. In Reality (In ERP)



Case vignettes

- A 25-year-old housewife was brought to hospital by her husband and parents-in-law that she spend hours washing her hands. On further examination she revealed that she feared her hands were unclean and as a result she indulged in repeated hand-washing to ensure her hands were clean. She avoided touching door handles, picking up objects on floor, old currency notes, window panes, buckets and mugs used by others. She even avoided using the same toilet used by others. Brushing her teeth would take about 30 minutes because she feared that her teeth were not clean. Because of her preoccupation with cleanliness, she would spend about 20-30 minutes washing her hands every time she touched any object or article that she thought was dirty (e.g. Door knobs, dining table, combs, soap box etc.) She would clean the bathroom, buckets, mugs and even taps and soaps for about an hour or two before she took bath and another 2 hours to bathe. Her fear that she was not completely free of dirt would drive her to apply soap repeatedly and as a result she would be extremely tired by the time she came out of the bathroom. Her life and daily activities revolved entirely around her preoccupation with cleanliness and she would be left with very little time to do anything else. Of late, her obsession with cleanliness had reached to such an extent that she would force her husband to repeatedly wash hands before he did anything. She was aware that her preoccupation with cleanliness was irrational and excessive, but nevertheless she was unable to control because of severe anxiety.

- A 30 year old bank employee working as a cashier suffered from a doubt that he has not counted currency notes properly before handing over the cash to customers. His doubt was that, either he had given more or less money than what was intended to be given. If more money is given he would be held responsible and if less money is given the customer would shout at him. These incessant doubts interfered in discharging his duty as a cashier. It was particularly problematic for him in the first week of every month when a large number of customers visited his bank. He would end up counting over and over again and as a result customers would shout at him for his inefficiency and slowness. He even received memos from his bank manager for his inefficiency, and became an object of ridicule in his office, which left him feeling ashamed and depressed. Upon further questioning, he revealed that he also checks door lock of his residence at least for about 10-15 minutes before retiring to bed in the night. He even checked all the electrical appliances several times to ensure that they were switched off properly. These checking and counting rituals had become a source of great distress and anxiety to him as he was very well aware that they were clearly excessive and unnecessary.

- A 16-year-old student was referred by a general practitioner with the complaint that he never went to school on time, because he spent more time preparing to go to school than actually going. Parents revealed that he would never be satisfied with the way his things were arranged on his reading table and the books in his

school bag. He would spend about 2 hours in the morning arranging and rearranging various things related to his school and would be invariably late. If forced by his parents to hurry up, or if someone handled his personal belongings he would get extremely upset with them. Parents also reported that he spent about an hour making his bed before retiring to bed in the nights. Because of his excessive preoccupation with keeping things in an orderly fashion, he was hardly left with any time to study and complete homework and other school assignments. As a result, he went down in the ranking and teachers started complaining about his academic decline.

- A 23-year-old agriculturist used to get repetitive images of naked women whenever he saw them. He used to get these images even upon seeing his mother, sisters, and young girls. These unwanted images would evoke intense anxiety and guilt in him. As a result he developed severe depression and suicidal ideas. He started avoiding eye contact with women, including his mother and sisters and became more and more isolated. He stopped attending social functions where he would have to invariably meet women. He also started to recite prayers in his mind to counter these images, but nude images could not be controlled. His family members brought him for treatment because of his depression and an attempt to kill himself by hanging.

- A 26-year-old doctor developed urges to harm others. These urges caused intense anxiety and guilt because they were quite against her usual friendly nature. These urges were particularly more severe whenever she was with her 2-year-old daughter. She feared she might stab her daughter with a knife and as a result she was compelled to get rid of all the knives in her house. Her fear that she might stab her daughter became so serious that she would send her daughter to her parents' house frequently on some or the other pretext and would not bring her back. She sought psychiatric consultation because the urges did not go away despite her efforts to control and they started interfering in her work.

- A 20-year-old engineering student came to hospital with 2 years' history of unwanted thoughts. He reported getting repetitive thoughts as to what will happen if his father dies, the changes that will occur in home following father's death, changes in his financial status etc. All these related thoughts would come one after another in a sequential manner finally leading to original distressing thought of his father's death. Patient knew that his father was doing well except for occasional pain in the abdomen and believed that these thoughts were foolish, but could not control them.
- A 24-year-old agricultural manual laborer presented with complaints of repetitive urges to abuse elders and God with vulgar words. These urges would come upon seeing elderly people, photographs of Gods or when he walked across a temple. The urges caused intense distress in him because he was a God-fearing and religious person and respected elders. He tried to stop these urges by pressing his lips tightly as he feared he might utter obscenities but was not successful. He

avoided taking to elders and visiting temples. Psychiatric consultation was sought because urges became unbearable.

- A 27-year-old male, photographer by profession came to the hospital with 2 years' history of getting repetitive images of day-to-day events, his interactions with other people, his girlfriend, etc. He felt that these images were not pleasurable and considered them as unwanted and intrusive. He tried to control these by telling himself not to think about them but in vain, as they used to come again and again.

- A 22-year-old security guard presented with complaints of disturbing thoughts. He used to get repetitive thoughts about any news item which he read in the newspaper or heard over the radio. These thoughts would come to his mind repeatedly beyond a point of relevance, even though the news items were unimportant. He would try to stop these thoughts by thinking about his future and other events, but they would come back after some time.

* * *

THANKS FOR CHOOSING NIMHANS FOR TREATMENT

OCD specialty clinic – Every Tuesday 2.00 PM, NIMHANS, OPD

Please come on any Tuesday at 2.00 P.M sharp to the OCD Clinic, First Floor of the Out-Patient Department, NIMHANS and get registered. Please bring the prior treatment records. If possible, get a summary of the case by the treating doctor. Members of the clinic will assess you in detail. Depending upon your clinical status, doctors will choose the type of treatment, as well as the treatment setting (In-Patient or Out-Patient.)

If you are advised admission, please take note of the following:

1. One of the family members may have to stay with the patient as per the hospital rules.
2. For in-patient behavioural therapy, at least 6-8 weeks of hospital stay is necessary.

Hospital charges and room allotment:

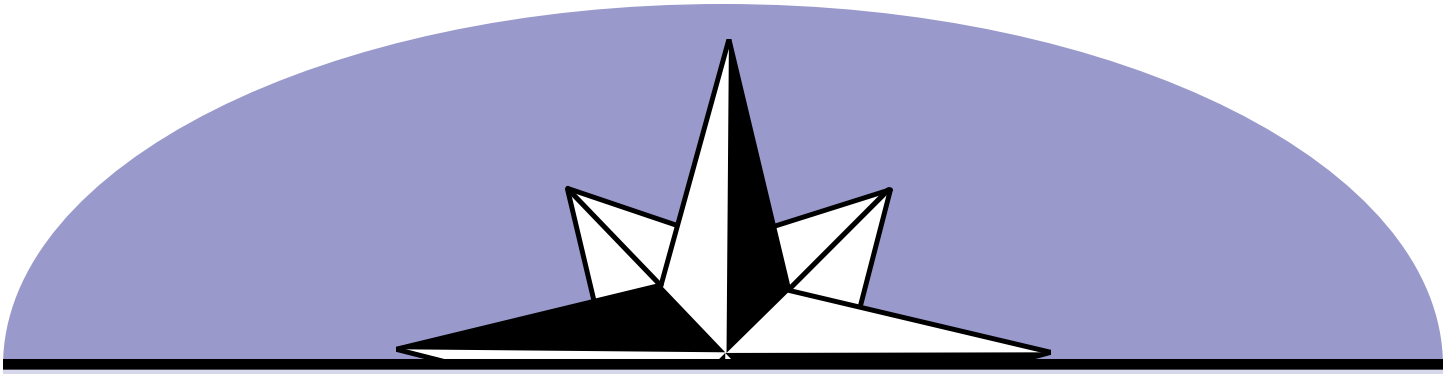
Kindly consult the NIMHANS Webpage for details regarding room allotment, guest house availability, and hospital charges:
http://www.nimhans.kar.nic.in/psychiatry/psychtr_patients.htm
http://www.nimhans.kar.nic.in/psychiatry/psychtr_patients2.htm

General information:

NIMHANS is about 8 km from Bangalore City Railway Station and about 11 km from Bangalore Airport. Taxi and auto rickshaws are available.

CONTACT DETAILS
(For booking room in Special Ward/ Laxmi Mittal Home)

Resident Medical Officer
NIMHANS
Hosur Road, Post Bag No 2900
Bangalore 560029
Email: rmo@nimhans.kar.nic.in
Telephone: 080-26995203 / 26995204
Fax: 080-26562121



Obsessive-compulsive disorder (OCD) is a common and disabling mental disorder. It is twice as common as schizophrenia and bipolar disorder. OCD is largely underdiagnosed and inadequately treated. OCD mostly presents for the first time in adolescence and can thus incapacitate a person throughout his/her life. Despite its relatively early age at onset, only a minority of sufferers receive treatment early in the course of illness. OCD also has its relative share of stigma, resulting in long delays in treatment. This is compounded by the fact that most medical professionals are unfamiliar with its clinical characteristics resulting in delay in diagnosis and appropriate treatment.

Considerable progress has occurred in the last two decades in the treatment and understanding of this common psychiatric illness. Serotonin reuptake inhibitors and cognitive behavior therapy, both have improved the outcome of this illness, which was otherwise considered difficult to treat. There is also significant advance in the understanding of the neurobiology of OCD with respect to neural correlates of obsessional behavior, genetics and immunology. However, despite the advances in understanding the neurobiology and the cognitive factors in the causation of OCD and availability of effective treatments, about 40% to 60% of the patients do not show satisfactory improvement. This shows that there is still much to be understood

The OCD clinic was started on the 24 of June, 1997 by Dr. Sumanth Khanna and Dr. YC Janardhan Reddy, with the objective of providing clinical services, training mental health professionals and conducting research. The OCD clinic at NIMHANS is very popular and caters to around 120 to 150 new patients per year and follows up close to 1000 patients in a year. Patients are often referred from across the country for management of resistant OCD. The specialty OCD clinic is also known for its research activities and have published many international articles. Research activities are focused on phenomenology, course and outcome studies, family studies, genetics, neuroimaging, and neuropsychological studies. This specialty clinic held an international symposium on Nov 10 & 11, 2007 in commemoration of completion of a decade of specialty OCD services at the National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore