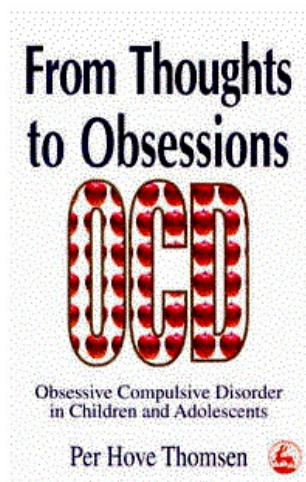




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Obsessive Compulsive Disorders in Children and Adolescents

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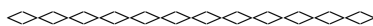
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Foreword

A number of people, children as well as adults, have experienced mild forms of obsessive/compulsive symptoms in their everyday lives. Most of us have experienced the need to check that a door is locked one extra time (even though we have only just locked it, and are sure that it is, indeed, locked). Some of us have, also, experienced the need to check that the oven has been turned off, or that other electrical appliances have been properly switched off, before having the peace of mind to go to bed at night (just in case we had forgotten). We can, however, reassure ourselves, by checking a couple of times, that the door is locked, that the oven is turned off, and so on. We are thus not haunted by the nagging doubt, or the compulsive doubting, that is experienced by patients suffering from obsessive compulsive disorder (severe obsessive symptoms).

The idea of writing this book developed out of my clinical work in the field of child and adolescent psychiatry. Having seen many children and adolescents with severe obsessive compulsive disorder (OCD), I have observed the patients and their relatives and have identified their need for more knowledge of the disorder. This book is, therefore, dedicated to them.

In addition, the book is written for professional people who, in their everyday lives, deal with children and adolescents suffering from OCD. This applies to teachers, doctors, psychologists, social workers, nurses and educationalists.

I extend my thanks to my colleagues within child and adolescent psychiatry for their inspiration, as well as to the numerous young patients and their families who have taught me so much about OCD.

Note: masculine and feminine pronouns have been used interchangeably.

Chapter 1

The Definition of OCD

What is obsessive compulsive disorder? According to both the American and World Health criteria for diagnoses (American Psychiatric Association 1994; WHO 1992), the condition can be described as characterized by recurring, obsessive thoughts (obsessions), or compulsive actions (compulsions).

Obsessive thoughts are ideas, pictures of thoughts or impulses, which repeatedly enter the mind. They are almost always embarrassing and disturbing, and the patient normally attempts to repress them. The patient regards them as his or her own thoughts, despite the fact that the thoughts are involuntary and frequently in contradiction to the patient's own feelings. Compulsive actions and rituals are behaviours which are repeated over and over again.

The thoughts are neither pleasant nor useful. Their sole function is to prevent the occurrence of some unlikely eventuality, which is feared by the patient an event which often involves the fear that the patient will cause damage to others, or to himself. Normally, the patient is able to acknowledge that his or her behaviour is futile, or ineffective, and will, therefore, attempt to resist it. Anxiety is almost always involved, and should the patient try to resist, then the degree of anxiety is increased. For OCD criteria to be fulfilled, the obsessive or compulsive symptoms must be of a level which causes distress to the patient, or affects his or her everyday functioning. In addition, the patient must acknowledge that the obsessive thoughts are

intrusive. The patient must then practice resistance over the obsessive thoughts (at least initially).

OCD Is Not a Psychotic Condition

From the definition, we can conclude that an obsession must be separate from oneself. Thus, the child or adolescent with OCD must experience the obsession as an intrusive, involuntary thought, which he acknowledges as a product of his own thought process and from which he would prefer to be free (i.e. the child experiences the thought as being unpleasant). The child must also be able to acknowledge that the thought is irrational and illogical. This is in contrast to the delusions suffered by psychotics, where the patient believes the thoughts to be real. Thus, OCD cannot be regarded as a psychotic condition.

In severe cases (in children and adolescents, and in adults), it can be difficult to differentiate between a purely obsessive thought and a thought with a slight hint of paranoia. Some children and adolescents suffer from OCD and psychotic conditions simultaneously. The clear differential which can be made between patients suffering from OCD and patients suffering from delusions is less clear in the case of smaller children. Obsessive thoughts experienced by children normally have a touch of reality connected to them. This causes the child to distance himself from the thoughts (i.e. describing them as being weird or strange), whilst at the same time having doubts as to the reality of the thoughts themselves. For example, the child can be afraid that some unlikely event will take place if he does not complete the obsessive ritual which is demanded by the obsessive symptoms.

Obsessive thoughts are also significantly different from a further phenomenon seen in psychotic adolescents hallucinations. Experiencing an hallucination entails seeing, smelling, or hearing things which do not exist, but which are

thought by the patient to be real. Conversely, the OCD child or adolescent will acknowledge the awkwardness and embarrassment of the obsessive thoughts. The patient will frequently be afraid that others will regard his thought as being insane; or even worse, think that the child or adolescent is actually becoming insane.

Chapter 2

Earlier Attitudes to OCD

OCD is not a new phenomenon, although awareness of the condition has increased considerably in recent years. Throughout the centuries, various terms have been attached to the condition we now know as OCD. The condition has been referred to as 'the demonic condition', religious melancholy, perfectionism, obsessive doubting, petrification of the psyche and, most recently, obsessive neurosis. Despite these widely differing terms, the condition has, in fact, been the same. Historical literature from the 1500s onwards has described numerous cases of OCD. Modern clinical and scientific interest in OCD began at the turn of this century.

In 1878, the German neurologist Carl Westphal described the condition as a separate disorder, unrelated to depressive conditions (Westphal 1878, in my translation):

By compulsive ideas I mean ideas which, in an otherwise intelligent person, and without being caused by a depressive or otherwise emotional imbalance, come to the forefront of his consciousness against his will. They cannot be dispelled, and they impede and frustrate the normal chains of thought, even though the victim always considers them to be abnormal and strange. Most of the time, they are absurd and have no provable connection to former ideas. To the patient, they appear to be incomprehensible and appear out of thin air. (p.735)

In *The Rat Man*, Freud described a typical example of what he termed the classic obsessive neurosis (see Freud 1925). The story relates to a young man, who experienced obsessive thoughts and

actions, and whom Freud treated through psychoanalysis. One of the obsessive thoughts haunting the man was the vision of rats harming his father and his girlfriend by crawling into their rectums (hence the name, 'The Rat Man'). Freud interprets the obsessive symptoms as suppressed, or displaced aggressive impulses, where the aggressions are omitted in the obsessive symptoms. Such an omission or suppression of aggressive feelings, as a part of the neurosis can, for example, transform the thought process 'If I do such and such (or do not do such and such), my father will punish me and I will become so furious that I shall kill him' to 'If I do (not) do such and such, something terrible will happen to my father'. According to Freud, the neurotic abbreviation indicates that the patient is convinced that he is capable of killing people, or keeping them alive, by his thoughts alone.

More recently, the capacity of psychoanalytical theory to explain a number of psychiatric conditions has been questioned. In traditional psychoanalysis (see Chapter 9), OCD has, in the main, proved incurable and the condition's relationship to other classic neuroses (anxiety neurosis and hysteria) has also been questioned. As described in the chapters of this book relating to causes and treatment, more recent focus has been on the possible biological factors which lead to OCD. The author's view, as expressed in this book, is that OCD is a disorder which can be caused by a biological vulnerability in disposition, combined with external stressful stimuli.

Chapter 3

The Clinical Picture

The Most Common Compulsive Symptoms

Fear of Dirt and Infection, Combined with Compulsive Washing, Are the Most Common of All Compulsive Symptoms

Compulsive symptoms amongst children and adolescents can be expressed in many different ways. The most common symptoms, as seen in approximately 40 per cent of all cases, are compulsive thoughts in connection with fear of dirt and infection, and compulsive actions involving exaggerated washing rituals. Many different and coincidental symptoms are found amongst the majority of OCD children and adolescents. In what follows, a distinction is made between compulsive thoughts and compulsive actions. The majority of OCD children and adolescents experience both compulsive thoughts and compulsive actions; however, in individual cases, a child can experience compulsive thoughts without compulsive actions and vice versa.

Table 3.1 illustrates the most common compulsive symptoms, as seen in children and adolescents from various parts of the world. No significant differences related to gender have been found.

Fear of dirt and infection occurs most frequently in the case of both males and females. The child's compulsive thoughts centre perpetually upon the fear of contracting illness (e.g. AIDS), or the fear of bacterial infection or 'germs'. The child recognizes that the idea of having contracted AIDS is completely illogical,

and through his or her intelligence, combined with the knowledge of the sources of infection, is able to rationalize and dismiss the fear as being completely unfounded. The thought, however, remains and makes its presence felt, particularly when the child finds him or herself in situations of stress.

The child may have a 'place of refuge' at home, where compulsive thoughts can be controlled. In most cases, however, they tend to flare up when the child is in the company of others, or is in a particular place. Eventually, the child will prefer

Table 3.1 Most common obsessive compulsive symptoms
in children and adolescents with OCD

<i>Obsessions regarding:</i>	<i>Seen in approx (%)</i>
Dirt and contamination	40
That something terrible will happen	20
Illness	20
Death	20
Symmetry	15
Sex	10
Religion	10
Fear of harming oneself or others	8
<i>Compulsions</i>	<i>Seen in approx (%)</i>
Washing rituals	50
Checking	40
Repeating rituals	40
Ordering/arranging	30
Other rituals	25
Counting	20

to remain at home, and will then gradual refrain from more and more of the activities he or she had formerly carried out with others. Perhaps the child has some 'special places' at home, where he or she can be 'risk-free'. In most cases the child's own room becomes the only risk-free area.

Compulsive thoughts concerning dirt and infection are most frequently connected with exaggerated washing rituals. Compulsive actions can appear to be completely bizarre, where the child or adolescent must, for example, wash his or her hands every ten minutes, or a particular number of times each day (up to 100 times or more). The child suffering from compulsive washing experiences an irresistible need to wash his or her hands after touching other people, or after particular situations. Other children and adolescents cannot resist the urge to take frequent and long showers, for example for half an hour every morning and evening, in order to leave the house, and in order to go to bed. If they are unable to carry out these actions, they feel that bacteria, impurities, and the like are with them, wherever they stand, or walk. Thus they have lost control over them, resulting in 'impurities everywhere'.

If a child with compulsive washing rituals is hindered carrying out rituals, he or she experiences tremendous discomfort, or even shows violent fear, at least initially. The child is unable to provide any logical explanation as to why he or she experiences the urge to wash, but feels compelled to do so anyway. Compulsive washing can be so pronounced that the skin of the hands and feet becomes extremely dry. This is followed by tenderness and scaling, resulting in disintegration and, ultimately, in serious damage.

Case 1

A young man of seventeen, who had experienced severe OCD for a period of almost four years, was referred for treatment. At the age of thirteen, a serious fall from a bicycle resulted in severe concussion. During his recovery he gradually developed a fear of

dirt and infection. He described his worst compulsive symptom as being a fear of germs. He was able to rationalize and was capable of dismissing these thoughts. However, over the past three to four years he had lost control over the compulsive thoughts, which had now taken over his entire life. As a result of his compulsive thoughts, he only left his home when it was absolutely necessary. He continued to go to school but, in order to avoid bringing germs into the house, he changed his clothes at the front door whenever he left the house, as well as each time he returned home. He explained that should this not happen, he would feel completely out of control and that there would be 'germs everywhere', which he would not be able to fight. Each morning and evening he would shower for at least half an hour in order to leave his home to go to school and go to bed at night. If for some reason he was interrupted in his shower ritual, he would not permit himself to sleep in his own bed, but would sleep in a sleeping-bag on the floor in the hall. This was to ensure that germs were not transmitted to the rest of the house. More often than not he would, during the course of the day, only permit himself the use of the hall, kitchen and his own room. If, for example, he were to enter the lounge, he would spread germs there.

He did well at school and academically was always at the top of the class, despite the fact that he was unable to take schoolbooks home from school, for fear of transmitting germs. Because of this, he would leave his schoolbag in the garage outside the house.

Case 2

A fourteen-year-old boy was admitted to hospital, due to severe compulsive symptoms. At the time of admittance, he was completely disabled by his conception of dirt and infection. He feared just breathing 'other people's air', which he thought would be full of infectious germs. He had experienced these symptoms for a couple of years, during which they had become

gradually more and more severe. Due to his compulsive thoughts, he would constantly spit, in an attempt to cleanse his mouth and throat of dirt and bacteria.

He compulsively washed his hands many times each day in an endeavour to free himself from his compulsive thoughts, but they plagued him constantly. When his symptoms were at their very worst, he was compelled to wear a crash helmet, complete with visor, to protect himself from the breath of other people. The boy was completely aware of the irrationality of his conceptions. He was deeply distressed by his symptoms and behaviour, but felt completely powerless against them.

Checking Behaviour Is the Second Most Common Compulsive Symptom

A child suffering from compulsive symptoms in the form of checking, is compelled to check specific items again and again. For example, every five minutes the child will check that the front door is locked or, perhaps, check where his or her parents are in the house. As seen amongst adult OCD patients, children and adolescents can also feel compelled to check that all the lights have been turned off (or even turn them all on again to ensure that they will be turned off), or to check the oven, the taps, windows, and so on. Even though the child has just checked that the door was locked (and found that it was), the nagging doubt that perhaps it was unlocked will quickly creep back, compelling the child to check the door once again, in order to obtain just a few minutes' peace. Some children with these symptoms are found standing by the door for hours.

Case 3

Over a six-month period, an eight-year-old boy had developed compulsive washing symptoms, simultaneously with exaggerated checking of doors and cupboards within the home. The boy's symptoms were extremely embarrassing for him, as well as driving the rest of the family to distraction. At least every

five minutes, the boy felt compelled to check that the front door (as well as all the other doors in the house), was closed and locked, and that no one was standing on the other side of the door. Having checked all the doors, the boy would experience a couple of minutes' peace. But, the compulsion would quickly present itself again, and the boy would be forced to take another trip around the doors. Extended periods of the day and evening were spent standing beside the front door, mainly to establish that the door was actually locked. Despite the fact that he had just checked, he felt compelled to try it, in order to calm himself. During the evening he demanded that his family remain in a particular part of the house. In this situation, he felt in control and would let his family in and out of the rooms in the house.

As seen in other OCD patients, the boy was capable of seeing just how grotesque his behaviour actually was. He could be rational and acknowledge that his behaviour was exaggerated and unnecessary. On the other hand, he simply could not control it. If he was hindered in the completion of his checking ritual (e.g. during the treatment process, when his parents tried to reduce his compulsion), he reacted with severe insecurity. On some occasions, he reacted with extreme panic, where he would scream and throw himself onto the floor. He was unable to give any clear explanation as to why it was so important for him to check. He had no concrete conception of what would actually happen if he was unable to complete his checking ritual. He could only describe an uncomfortable, diffuse sensation of insecurity, when he fought against the rituals.

The boy felt that his symptoms were a complete strain. Not only did he find them extremely embarrassing, he also found it difficult to discuss them. They almost completely consumed his time, time that he would have preferred to spend doing homework, or simply playing.

Compulsive Thoughts Concerning Sickness and Accidents

Many OCD children and adolescents suffer compulsive thoughts regarding responsibility for the direct or indirect

misfortune of others if they refrain from performing specific rituals or actions. For example, a child can have compulsive thoughts relating to the fact that if she is not able to complete a particular ritual within a given space of time, or complete some action in a most specific order (e.g. brushing teeth, dressing, etc.), she will be responsible for some terrible happening, involving either herself or her parents or loved ones.

A very common compulsive thought relates to sickness and death. The child continues to revolve these compulsive thoughts in her mind and even though she tries to resist them, she is unable to do so. Compulsive thoughts regarding sickness can almost be characterized as hypochondria. The child thinks that she is suffering from some kind of illness. This perception can, perhaps, be corrected for short periods of time, but she is quickly troubled once again by the return of the compulsive thoughts. Less common cases have shown OCD children/adolescents who have stared blindly at a specific part of the body (nose, face, or sexual organs), which they find extremely abnormal and which they would like to change, by way of operation. To everyone else, this particular part of the body appears completely normal and in the short-term the child is, also, able to admit this (when being rational). However, the child is soon distressed once more, by the return of the compulsive thoughts. These rituals which the young patient must complete can involve extreme exaggeration of daily routines, or they can assume a more bizarre appearance.

Case 4

As though struck by lightning, a ten-year-old boy experienced a compulsive thought which made him feel responsible for the accidents of other people, if he did not ensure that the roads and paths were free of rubbish, small stones, etc. Socially, the boy functioned normally, and was of reasonable intelligence. He had an average sense of humour, as well as having many hobbies. He had never previously experienced any form of compulsive

thought and could not be described as being particularly vulnerable in his early childhood.

Shortly after the onset of symptoms, the boy went out onto the roads in the neighbourhood, along with his father. Clearing the roads brought the boy short-term relief, but upon returning home he was immediately troubled once again by his doubt: 'Had they really collected ALL the stones?' 'What if more rubbish or stones had accumulated since they got home?' These compulsive thoughts of being responsible for the accidents of others were most troubling and embarrassing. Finally, the boy was referred for OCD treatment.

Case 5

Within a short space of time, following a traumatic family experience, a fifteen-year-old girl developed OCD with checking rituals, and a fear of sickness and death. She would telephone her mother at work between thirty and forty times each day, to make sure that she was all right. Furthermore, the girl was filled with compulsive thoughts that something terrible would happen to her mother, if she did not complete a series of compulsive actions, down to the very last detail. She would, for example, go up and down the stairs following a specific and complicated pattern, treading on each stair a specific numbers of times, turning around, going backwards and hopping over some stairs. On the way to and from school, she would embrace all the street-lights, as well as count all the windows in the buildings along the street. If she happened to doubt that she had counted all the windows, she felt compelled to begin the same route once more, just to make sure. Consequently, she was inevitably late for school.

The girl also developed cleanliness rituals; she would wash her hands and body at regular intervals, she would scrub floors and stairs, should the slightest amount of dirt appear. The dirt was also connected to the fact that her mother might harm herself.

The girl was able to resist her compulsive thoughts and actions, and was able to rationalize. However, she was troubled by a violent doubt regarding the well-being of her mother, and felt guilty and afraid that something would happen if she slacked or struggled against the rituals.

Case 6

A formerly well-functioning fifteen-year-old boy was referred by his family. Over the previous year, he had developed compulsive thoughts regarding sickness and death. Amongst other things, he was suffering from the conception that he had contracted or would contract AIDS. The fear was completely unfounded, but the thought remained and the boy was unable to let it go. In addition to the concrete fear of AIDS, the boy had developed a more extensive fear of contagious illnesses. As a result of this fear, he gradually became more and more isolated. From being a popular child, as well as a keen participant in social activities, he became distant and completely isolated from his friends. He developed a complex pattern of clearing his throat and spitting, and hardly dared to breathe when others were close to him. His friends thought him 'slightly weird' and started to avoid him more and more.

At home, the boy developed even more complicated rituals. Visits to the toilet were conducted in a specific order and in a particular way. If his personal things were moved, he would react violently and was agitated. When passing through a doorway, he would stay close to one side, in order to avoid touching the door itself. He was not permitted to hang his clothes on the hooks in the hall. At some point, he developed a compulsive thought that even his glance was 'dirty'; thus, everything he glanced upon was also 'dirty'. At a later date the family was forced to change their car because the boy refused to get into it; he had looked at the car and thus it was contaminated. At this time, the boy's compulsive symptoms were a source of extreme embarrassment to him. He refused professional help for some time, simply because he would have to reveal his compulsive symptoms.

Case 7

In addition to compulsively washing his hands, a nine-year-old boy feared a particular area of the family car. As far as the boy was concerned, this place was strongly connected with the fear of bacteria, or impurities. Some rubbish which was to be thrown into the bin had been placed on a specific place on the back seat of the car. The boy had been disgusted by this and had been afraid to breathe whilst he was in the car with the rubbish. Months after the rubbish had been disposed of and the car had been repeatedly cleaned at the boy's request, the irrational thought remained that he could still contract germs should he touch the place where the rubbish had been. During the months after this incident, he preferred not to travel in the car. On occasions where it was impossible for him to refuse, he would edge himself into the car in a specific way. If he happened to cross the part of the road, or the parking spot, where 'that particular part' of the back seat had been, he would 'neutralize' his steps (i.e. he would walk backwards, in order to 'undo' his actions).

Many OCD Children Suffer from Compulsive Doubts

The most common doubt amongst children and adolescents relates to whether something would happen if they were to do or not do a specific thing, and whether they have interpreted that which has happened correctly.

Case 8

A nine-year-old boy felt compelled to say goodnight to his parents at least sixty times each night. On completion of his goodnight ritual, the boy was still in doubt as to whether he had said goodnight properly to his mother and father. This doubt with regard to his own senses was also seen in other situations during the course of the day. When someone left the house, the boy would repeatedly say 'goodbye', and still be plagued by the doubt as to whether he had said 'goodbye' in a proper fashion. During the course of the day, the boy would ask the same

question incessantly, asking either the teachers at school, or his parents, whether something would happen as a result of this or that, or whether they had answered the previous question truthfully.

Even though his parents tried to reassure him and convince him that he had been given the correct answer, that absolutely nothing would happen in consequence of this or that, the boy was not reassured, nor could he obtain any peace from his nagging doubts. In various everyday situations he experienced extreme difficulty in deciding what he should do first or last. He could, for example, become completely paralysed by having to make the choice between packing his geography book or his mathematics book into his bag first. In these situations too, he would seek the reassurance of his parents that nothing would happen if he packed his geography book first. The boy also required daily reassurance that he had remembered to brush his teeth, done his homework, fed the guinea pig, and so on.

Repeating Rituals Are Seen Amongst Many OCD Children and Adolescents

Case 9

Each time a thirteen-year-old girl entered her home, went into another house, went into school or, in fact, anywhere at all, she felt compelled to take note of the way in which she moved around the house. She felt compelled to leave the building in exactly the same way as she came in, taking the same exit, including any possible detours, to that which she had taken upon entering the house. The girl explained that she saw a mental picture of a thread of red cotton, which symbolized the route she had taken. On leaving the place, she must ensure that all the cotton had been wound up and that she therefore, neutralized her steps by walking back to the imaginary cotton reel.

The Need for Tidiness and Symmetry

A need for perfection is seen in many children, particularly at certain stages of their development. However, when this is seen to be severely exaggerated, it can also be an expression of OCD. Examples of this might be homework being repeatedly corrected, or letters being incessantly rubbed out and re-written. Some OCD children have special demands with regard to symmetry for example, everything in the child's room must be placed in a specific and symmetrical way. One sees these children moving the furniture; they are unhappy and, possibly, panic-stricken if the furniture is not placed in the way in which they had decided it should be.

In these situations, the children are unable to explain just why the arrangement of the furniture is so ultimately important to them. Most frequently, they can only express the fact that it doesn't 'feel right' until they do it themselves. Occasionally, the conception that something terrible will happen is attached to the compulsive action itself (i.e. that something terrible will happen, if things are not arranged in the way in which the child feels compelled to do it).

Children and adolescents suffering from compulsive symptoms related to tidiness and symmetry sometimes explain that the compulsive actions can also be expanded within the mind, that the child arranges furniture, pictures, carpets and so on, for example, in the form of inner pictures. When entering any new place, the child will mentally arrange things, before he or she is able to relax in the new surroundings. However, doing this once is not normally enough. Most frequently, the child/adolescent must order and arrange his thoughts constantly. In extreme cases of OCD, the child can be so disabled by the compulsive thoughts that he or she is unable to concentrate on a simple game, or hold a conversation.

Compulsive Counting Is Found Amongst OCD Children and Adolescents

Some OCD children are compelled to count, either up to a specific number, or at specific intervals, or when he or she moves from one situation to another. For example, the child feels he must count the number of windows, or the number of houses, on the way to school. This form of counting is often so compulsive that the child has to start from the beginning if he has any doubt about how accurately he had counted all the windows on the way. As a result, the child will be late for school and as the compulsive actions gradually increase the child may become completely unable to go to school at all, simply as a result of having to count (see Case 5, p. 18). Even when the child does actually arrive at school, he is plagued by the doubt that he counted all the windows on the way. Other children find it necessary to say specific sentences quietly to themselves, in order to prevent other children from hearing. On other occasions they will speak out loud, to the astonishment and irritation of others.

Some OCD Children Have Disturbing Mind Pictures

Some children with OCD experience obtrusive and unwelcome mental pictures, which can be of a violent, sexual or obscene nature. Frequently, the child or adolescent will find these thoughts so embarrassing that parents or friends rarely get to hear of them. Other children and adolescents describe 'inner pictures' running repeatedly in their minds, thoughts which intervene in and disturb their normal functions.

Compulsive Slowness

In adult OCD patients, and in rare cases in children and adolescents, one encounters what can be described as compulsive slowness. This symptom can be associated with difficulty in making even minor everyday decisions. The child or adolescent can, for example, be completely paralysed by having

to decide whether to wear the blue or the red dress, or whether she should eat the meat or the potato on the plate first. For those who don't know the child, it can be difficult to imagine the amount of deliberation that takes place in the child's mind. Amongst patients who have suffered from compulsive slowness for many years, it is often the case that all their actions and bodily movements are carried out as if in slow motion.

Are the Symptoms of Referred OCD Patients Identical to That of Non-Referred Patients?

In their study of approximately 5000 adolescents, Flament *et al.* (1988), found 18 adolescents between the ages of fifteen and seventeen years who fulfilled the criteria for OCD. These were compared with the large groups of previously registered OCD patients, with regard to the actual type of symptom, as well as its content. The result showed that the distribution of the various compulsive symptoms amongst non-referred OCD patients was identical to that of the referred patients. One can therefore assume that the patients who are referred for treatment represent the distribution of compulsive symptoms, just as they occur amongst the (presumably large) group of non-referred children and adolescents with OCD symptoms.

The Clinical Picture Amongst Adults

Compulsive Symptoms Found in Adult OCD Patients Are Identical to Those Found in Children

Descriptions of the symptoms found amongst adult OCD patients are identical to those of symptoms in children and adolescents. It would appear that more children have compulsive actions only, and no compulsive thoughts, whilst the opposite is more likely to occur amongst adult patients. However, it appears that the individual child or adolescent does not always maintain the same type of compulsive symptom (i.e. in cases where the

compulsive symptoms continue into adulthood). This point will be discussed in greater depth in Chapter 7.

Age at Onset and Sex Ratio

Compulsive Symptoms Frequently Begin in Middle Childhood or During Adolescence

Several studies of adult OCD patients have shown that approximately 66 per cent experienced the first symptoms prior to the age of eighteen years (Karno *et al.* 1988, Rapoport 1989). Individual studies have reported children as young as three to four years of age who have shown definite OCD symptoms, but this is extremely rare. Amongst the children and adolescents referred with OCD symptoms, it has been established that the illness normally begins between the ages of nine and thirteen years, and that age of onset appears to be identical in males and females.

In all of the countries where the existence of OCD amongst children and adolescents has been described, males represent 66 per cent of the child patient group, whilst females represent 33 per cent. On this point, OCD does not differ from most other child psychiatric illnesses, where it is typical to find a preponderance which is 66 per cent male.

What Are the Triggering Factors?

Amongst the majority of OCD children and adolescents, the actual illness is preceded by mild forms of compulsive symptoms and features, which have not been to such a degree disabling that the child or adolescent has fulfilled OCD criteria. The child in question has had to do specific things in a most particular way. Things in the child's room must be arranged in a special way, dressing in the mornings has been carried out in a particular fashion, and so on. Perhaps the child has had to brush his teeth for a certain number of minutes, as well as making sure that the number of brushings of the upper mouth was equal to that of the

lower. Perhaps the child has followed some kind of goodnight ritual before he was able to go to bed. The child has not, however, been hindered in his social life by his symptoms, nor has he been limited in his everyday chores. We can thus refer to these children as being 'sub-clinical'.

Amongst other children and adolescents, OCD symptoms appear suddenly, as though they have been struck by lightning. Some younger OCD patients have related that their fear of illness or infection, or perhaps a washing mania, has been triggered by a vision, or even the smell of a dungheap. Others have related that their first nagging compulsive thought concerning accidents was triggered by having seen a stone on the road, a particular comment from parents or friends or a film they had seen on television. There are many examples of things which can be triggering features. If one examines the child or adolescents's compulsive symptoms, occasionally the content is logically related to that which the child reports as the possible triggering feature (although this is not normally the case). A common cold, or a more long-term illness can trigger compulsive thoughts concerning sickness and fear of infection. However, the same compulsive symptoms in others can be triggered by an incident which has nothing at all to do with cleanliness, illness, or the like.

In many children one can discern more general difficulties to which the child has been subjected prior to onset of the actual illness. This could, for example, relate to a death in the family, parents' divorce, or possibly a change of school (resulting in loss of acquaintances and an invasion of the child's social network). In these cases, one must regard the triggering factor as being an example of general strain on the child, as opposed to a specific illness-inducing occurrence. Amongst other children and adolescents one is unable to find any form of specific triggering factor. No particular significance can be attributed to the triggering factors when we look at the causes of OCD. Causal factors will be discussed in Chapter 10.

Table 3.2 Triggering factors amongst 20 children
and adolescents with OCD

<i>Family occurrences</i>	8
Change of location	1
Divorce	2
Death	3
Disharmony between parents	1
Assault and battery	1
<i>Personal experiences</i>	6
Conversation with friends	1
Summer camp	1
Family holidays	1
Smell of an animal	1
The sight of dirt	1
Fall from a bicycle	1
<i>Sickness</i>	2
Operation	1
Epileptic fit	1
<i>Media occurrences</i>	2
TV broadcast concerning famine	1
Broadcast about the devil	1
<i>No triggering factor</i>	9

Table 3.2 provides various examples of triggering factors, found amongst a group of 20 children and adolescents referred for treatment. In some cases, several triggering factors were present whilst, as seen in Table 3.2, in 50 per cent of the cases it was not possible to attribute any probable triggering factor (Thomsen 1995a).

Compulsive Symptoms Are Frequently Hidden

The child or adolescent with compulsive thoughts and actions will frequently attempt to hide the symptoms from the outside world. The compulsive symptoms are described as 'egodystonic': the child is able to perceive them as strange and unwanted. Because of this, he or she may consider it embarrassing to reveal them to others. In many cases, it is years before these children and adolescents come forward for treatment, either because they have struggled privately with them or because they have forbidden their immediate family to discuss them with others. Amongst smaller children, the family is frequently involved in the child's compulsive symptoms relatively early. Amongst teenagers, however, the parents are often ignorant of their child's symptoms for periods ranging from six months to several years. The teenager is able to suppress or hide his or her compulsive symptoms amongst friends or at school (at least initially). In the early stages, parents often feel that the teenager is able to control the compulsive symptoms and to a certain degree this is indeed true. However, this is only so up to the point where the child becomes unable to isolate the symptoms within the four walls of the family home.

Children and adolescents with OCD often feel that they are insane, simply because they feel compelled to do something undesirable and experience ego-dystonic thoughts or actions, for which they have no logical explanation. A child will, also, to an increasing degree, feel entangled in her compulsive thoughts and will be most embarrassed by having to spend more and more time in dealing with them, time which, if necessary, must be taken from her other activities, such as family get-togethers, time spent with friends, hobbies, homework and, ultimately, sleep. Thus, to the outside world, the first visible signs of OCD will be social withdrawal and isolation. In many cases, adult OCD patients have been hiding their compulsive symptoms since childhood simply because they are embarrassed by them or because they are afraid that others would consider them insane.

Chapter 4

How Common Is OCD?

Research as to the frequency of OCD has largely been conducted amongst adult groups. It has been established that OCD is far more widespread than was believed previously. An extensive study in five different American states established that frequency ranged from almost 2 per cent to 3.3 per cent, which was 25 to 65 times higher than anticipated, following previous research in the population (Karno *et al.* 1988). In Canada, it has been established that 3 per cent of the population have suffered from OCD at some stage during their lives (Bland, Orn and Newman 1988). As described in the first chapter of this book, OCD has previously been regarded as an extremely rare condition amongst children and adolescents.

These views have, however, been based on research amongst children and adolescents who have been referred to child and adolescent psychiatric wards as patients. All those patients who have managed to hide their symptoms have not been registered. OCD children and adolescents constitute only a small percentage of patients on a worldwide basis who are referred to child and adolescent psychiatric wards. During the period 1970 to 1986, OCD patients constituted 1.33 per cent of all patients referred to a Danish child psychiatric ward. This figure more than doubled during the period 1991 to 1993, with the adolescent wards more than trebling (Thomsen and Mikkelsen 1991; Thomsen 1994a). Whether this rise has been caused by an increased focus on OCD is unclear.

In an American survey undertaken in 1988 amongst a group of approximately 5000 high school students aged between fifteen and eighteen years (Flament *et al.* 1988), 0.35 per cent were found to fulfil OCD criteria. Surveys from the USA and Denmark showed similar results regarding the most common symptoms: repetitive thoughts and words, together with difficulty in making decisions. These features may be an indication of OCD, or an indication of sub-clinical OCD. A questionnaire was distributed to all high school students as part of the American survey. Subsequently, all those having more than a specific score of 'yes' answers were asked to participate in an interview. During this interview, the OCD diagnosis was confirmed or invalidated.

In Israel, Zohar *et al.* (1992) found that 3.6 per cent of draftees (in Israel, both sexes are liable for military service) fulfilled OCD criteria. A German study, undertaken by Esser, Schmidt and Woerner (1990) analysed the obsessive symptoms of a group of eight-year-old children, who were followed up at the age of thirteen years. The authors did not use strict diagnostic criteria, which explains why the figures are not easily comparable to other surveys. Amongst the eight-year-old German children, it was established that between 4 and 5 per cent had moderate obsessive symptoms, and that almost 3 per cent suffered from severe obsessive-symptoms. At the age of thirteen, more than 2 per cent suffered with obsessive washing, whilst 4 per cent experienced varying kinds of obsessive thought. Symptoms at the age of thirteen were all of a moderate degree.

While there are no population studies of Danish children and adolescents which clarify exactly how many in a non-referred group of patients fulfill OCD criteria, during a screening of 1150 Danish school-children, aged thirteen to seventeen years, it was found that 4 per cent experienced obsessive thoughts or actions which had reached a stage of inconvenience and strain, that it was reasonable to consider either sub-clinical or clinical OCD (Thomsen 1993). Sub-clinical OCD is, in this case

defined by minor obsessive symptoms, which do not necessarily impede functioning in everyday life. The following table (Table 4.3) illustrates the answers given by Danish children and adolescents, to twenty questions regarding obsessive thoughts and features.

Table 4.1 Results of questions put to 488 boys
and 544 girls aged thirteen to seventeen in Denmark

	<i>Percentage who answered 'yes'</i>		<i>Percentage who reported distress</i>	
	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>
1. Do you often feel compelled to do specific things, even though you regard them as unnecessary?	43.4	47.1	2.5	0.7
2. Do you experience thoughts or words which recur in your mind?	62.7	65.8	7.0	5.1
3. Do you experience the need to check things several times?	43.0	45.2	2.9	1.1
4. Do you hate dirt and things which are dirty?	48.4	59.6	4.1	4.4
5. Do you sometimes feel that an object has been ruined, if touched or used by others?	25.4	25.0	2.0	1.5
6. Do you sometimes wonder if you are clean enough?	57.8	51.8	4.5	2.9
7. Is it important to you that your hands are clean?	50.0	61.0	4.1	5.1
8. When you put things in their place, is it important to you that you put them in their exact place?	42.6	44.5	7.4	5.1

(table continued on next page)

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	<i>Percentage</i>		<i>Percentage</i>	
	<i>who</i>		<i>who</i>	
	<i>answered</i>		<i>reported</i>	
	<i>'yes'</i>		<i>distress</i>	
	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>
9. Do you get angry if someone disorganizes your papers?	83.2	84.2	18.9	15.8
10. Do you take a certain amount of extra time ensuring that your homework is correct?	36.1	37.9	1.2	1.1
11. Do you sometimes have to repeat things until they are just right?	34.4	32.7	0	0.4
12. Do you sometimes have to count things several times, or think of specific numbers?	26.6	24.3	2.0	1.1
13. Do you sometimes experience difficulty in finishing homework because you must repeat things?	42.2	38.6	5.7	2.9
14. Do you have a favourite number, or a number which you prefer to count up to; or do you like to do things a certain number of times?	28.3	30.9	3.3	3.3
15. Do you sometimes feel guilty about things which other people consider trivial?	36.5	39.0	1.6	2.2
16. Does it bother you if you have done something unsatisfactorily?	61.5	58.8	4.5	4.8
17. Do you experience difficulty in making decisions?	61.1	71.0	8.2	7.0

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	<i>Percentage</i>		<i>Percentage</i>	
	<i>who</i>		<i>who</i>	
	<i>answered</i>		<i>reported</i>	
	<i>'yes'</i>		<i>distress</i>	
	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>
18. Do you think about things you have done because you worry that you haven't done them properly?	54.1	58.8	4.5	5.1
19. Are there specific things you must say or do to avoid bad luck?	27.5	34.2	1.2	1.5
20. Do you have specific numbers or words which you use to keep bad luck or bad things away?	17.2	24.3	1.6	1.5

From available, but somewhat incomplete public surveys, we must conclude that the frequency of OCD in children and adolescents is between 0.5 and 2 per cent. It is uncertain whether the frequency differs according to culture, and whether it is significantly different in different age groups. There is no reason to assume that children and adolescents are more open than adults to obsessive symptoms. Therefore, we must assume that the established figures are minimal. There is no doubt that minor obsessive symptoms appear in numerous children and adolescents at some stage of their lives, although these are, normally, sufficiently easy for the child to cope with. In these cases the condition would not be described as OCD. It is important, prior to the prognosis, to remember the requirements regarding the degree of severity and social influence as described in the first chapter of this book.

Chapter 5

Cultural Aspects of OCD

As mentioned at the end of Chapter 4, it is uncertain whether the frequency of OCD differs significantly in children and adolescents of different cultures. From a review of the studies of adult patients, it would appear that the frequency of cases of OCD is almost identical across cultures. Studies regarding the relationship between culture and mental illness can provide us with extra knowledge of those categories of illnesses which are seen every day within the field of psychiatry. For instance, is it possible that a certain amount of pressure can result in depression in people in one culture, whilst producing OCD in those of another? Or are these mental disorders separate entities, which are camouflaged by various cultural differences? In the case of OCD, in particular, it is vital to determine whether the difference in culture actually affects the frequency or, in fact, the way in which the symptoms are expressed. Many obsessive symptoms appear to be exaggerated, enhanced elements of everyday actions and routines and it would be reasonable to believe that culture contributes strongly to the nature of the symptom. For example, is obsessive washing more frequent in societies where cleanliness is given high priority? Are religious obsessive thoughts more common amongst religious societies? And so on.

If we initially study the frequency of OCD in different countries, with individual cultures, certain differences are bound to materialize. In the following, references are made to study groups consisting of adult patients as previously mentioned,

the available literature relating to children and adolescents is somewhat limited. However, there is reason to believe that OCD has the same characteristics, no matter whether onset occurs in childhood or in adulthood. The findings taken from the adult group should also be applicable to the child and adolescent group.

In the obsessive personality, psychoanalysis claims a connection between OCD and potty-training. This fact served as the basis for studies undertaken by the anthropologist La Barre in China in 1946. The author found (amongst other things) that as a result of the relaxed cultural attitude towards potty-training, obsessive thoughts and actions amongst the Chinese population were practically non-existent. It was proven somewhat later, however, that OCD was present amongst the Taiwan population, showing a frequency of 0.3 and 0.9 per cent (Hwu, Yeh and Chang 1989). Conversely, the Indian scientist Chackraborty (1975) described specific anal-erotic factors associated with the Hindu religion in Indian society. He believed that this would increase the number of obsessive thoughts and actions within the population. Subsequent studies have, however, shown no sign of increased OCD frequency in relation to religious happenings, quelling the myth that religion would lead to a further increase in the number of OCD cases (Aktar *et al.* 1978, Khanna, Gururaj and Sriram 1993). A frequency of approximately 0.6 per cent has been found, identical to that of Taiwan.

Studies from other countries, including the USA, Puerto Rico and Uganda have shown OCD frequency of between 1.9 per cent (USA), and 3.1 per cent (Puerto Rico).

OCD appears as a relatively frequent disorder in all countries where studies have actually taken place, and at least 0.3 per cent of the population appears to suffer from it. As yet it is still not clear as to which cultural factors influence OCD frequency within individual countries.

Upon studying the substance of obsessive symptoms in various countries, there appear to be no significant differences. Table 5.1 illustrates the findings from these various countries.

Table 5.1 The substance of obsessive symptoms in OCD patients from different countries

	Denmark	England	USA	Japan	India*	Saudi-Arabia*	Israel
Dirt/infection	34	56	48	39	46	12	50
Religion	8	5	13		11	50	41
Sex	7	12	8	5	10	6	6
Aggression	5						
Death	21	32		13	11	12	
Illness	18		24	13	14	3	3
Damage to others	18	12	4	12	11		3
The past	2	49			13		
Daily chores	7				27		

* Adult OCD patients only

On the surface, it would appear that religious substance to obsessive thought is more common in Muslim countries (amongst adult patients, at least) while thoughts concerning dirt and infection are less common. A more thorough review in the Egyptian study (Okasha, Saad and Khalil 1994) regarding the substance of religious obsessive thought shows, however, that in the majority of cases, it relates to the strengthening of a religious ritual connected with cleanliness, during which the body is cleansed three times after a visit to the lavatory, or prior to

praying. Once again, obsessive washing presents itself as the most frequent obsessive symptom.

That the proportion of cases and the essential nature of OCD is so similar in countries with widely different cultural backgrounds, indicates limited cultural influence on the manifestation of OCD. This supports the hypothesis that OCD is a biologically based disorder, which is relatively independent of cultural influences. Studies initiated by the World Health Organization (Rapoport 1995) continue, however, exploring these interesting cultural aspects.

Chapter 6

Obsessive Features as Part of Normal Development

Obsessive Symptoms Are Not Always an Indication of OCD

In a number of children, it is quite obvious that during adolescence they become enraptured by habits and even become ritualized in their games and actions. Most parents have experienced their child demanding that the same book be read to him each evening (the same chapter and the same pages), even though there are several different and more interesting books on the bookshelf. Some parents can even relate to how their three or four-year-olds have their own private rituals each night. For example, they place their teddies or dolls in a specific way, or climb into bed in a certain way. Thus, many habits and rituals constitute a significant part of a child's normal entertainment.

At approximately the age of two-and-a-half, ritualized behaviour is quite common in the majority of children. The actual frequency of these features has, however, never been studied. These obsessive phenomena are part of the natural development of a healthy child. One can think of it as the child's individual way of dealing with and adjusting to the outside world, as well as building up the confidence to face it. This obsessive behaviour is, perhaps, also an expression of repeating acquired knowledge the knowledge that the child practises and transforms into automatic knowledge (e.g. hearing the same passage of a book, performing the same acts each evening, etc.).

In most children, these obsessive phenomena will disappear as the child grows up. At approximately the age of three, the ritualized behaviour becomes less apparent and by the age of four it is practically non-existent, as the child becomes more familiar with his or her surroundings. The child will automatically develop new habits and routines, just as adults have their own individual habits and ways of doing specific things. At about the age of six, the child's rituals are more centred around role-play with other children.

Is it obvious that children who experience OCD onset in later childhood or adolescence have more extensive and developed 'naturally-obsessive' behaviour as toddlers? Leonard *et al.* (1990) studied this aspect in a survey of 35 children with OCD. The parents were questioned thoroughly as to their children's rituals in early development and asked whether these children were particularly superstitious. It was established that rituals which are considered to be part of normal development appear most frequently at bedtime, when the child must be separated from parents, and in other stressful situations. These rituals which form part of natural development normally disappear completely at around the age of eight years. It is quite common for OCD to present itself in a child of the age of seven or over. The authors of the study concluded that there was, perhaps, a tendency amongst children who developed OCD at a later age toward more pronounced and prolonged developmental rituals, although no specific features were found as being a forerunner of OCD.

In slightly older children, many different obsessive ideas can present themselves. The most famous example is probably the one of avoiding stepping on cracks in tiles or pavements, etc. In the cases of the majority of children this is merely a game, although it is still connected to the strange feeling that something unpleasant will happen should they step on the crack. It is, however, quite typical of children not suffering from OCD to choose, at various times, to step on the cracks if it is more convenient, or to suppress the power of the habit itself. These

healthy children will therefore not feel controlled by an obsessive thought that they cannot break without discomfort.

Some children agree that they are filled with a vision of avoiding some terrible happening if they manage to pass the next lamp-post before a car approaches from behind whereas something terrible might happen if they don't quite make it. The 'terrible' can be a vague, strange experience, or a more shaped, concrete vision of the child or his or her parents coming to harm. A vast majority of children with such mild obsessive phenomena can, however, live quite easily with the thought of not making it past the lamp-post first, and they will not react with the anxiety and discomfort experienced by those suffering from OCD. If one prevented a child not suffering from OCD from cycling towards the lamp-post, the action would not be considered as threatening, whereas the OCD child, on the other hand, would experience severe discomfort. The difference between a child suffering from mild obsessions and one with OCD is, therefore, just how controlled the child is by his or her obsessive thoughts, how invading and disabling the thoughts are, and whether the child experiences difficulty in avoiding these obsessive actions.

Adolescents and Adults Also Experience Obsessive Phenomena in Their Everyday Lives

Rituals of a different kind can be perceived in adolescents not suffering from OCD. We have all seen the tennis player bounce the ball a certain number of times before commencing play, or seen him dance around on his feet in a certain manner. We have, also, seen this phenomenon in team sports. From an American study (Rapoport 1989) it is common knowledge that 70-80 per cent of basketball players do not feel ready unless the team has performed several rituals during practice, or prior to the match. During the match, we see rituals such as applauding the goals by clapping hands, or bouncing the ball a certain number of times before throwing it.

By the same token, many actors, or others who frequently perform on stage, take about how they have certain things which they feel they must do in order to feel secure that everything will go according to plan.

In their everyday lives, many adolescents have experienced the compulsion to wear specific clothes, or to write with a particular pencil, for example, when taking an exam. The border line between being superstitious and suffering from obsessive thought is determined by whether when rationalizing one is able to calm oneself by establishing that wearing a different shirt will not actually affect the examination result. The obsessive thought is, on the other hand, invading and it will disrupt the entire course of the exam, unless one gives in to it and is controlled by it. In the review, different patterns of ritual behaviour are presented in the way in which they can appear in the normal adolescent period in children with OCD.

Table 6.1 Rituals and Superstitions seen
in Normal Development

<i>Type of ritual</i>	<i>Age group</i>
Good-night rituals	Small children
Avoiding stepping on cracks	Young children
Milder forms of checking	Young and older children
Counting and lucky numbers	Older children
Touching specific things	Older children (but somewhat rare)
Washing hands/bathing	Pre-school age children (quite rare and seldom found in teenagers not suffering from OCD)
Fear of dirt and infection	Younger and older children (mild form)

In children and adolescents suffering from OCD, the above-mentioned behavioural patterns are seen in a strongly exaggerated and crippling form.

Chapter 7

The Course of OCD

The nature of the course of OCD varies dramatically in the majority of cases. Flament *et al.* (1990) studied the course of OCD in 25 American children, while Thomsen and Mikkelsen (1995) studied 23 Danish children and followed them up between two and seven years later. It was found from both studies that in the majority of these children, periods with severe obsessive symptoms were experienced, along with periods where symptoms were of a milder form, or there were no symptoms at all. Most of the children studied still showed signs of OCD at follow-up stage; only a few having managed to rid themselves of OCD symptoms completely.

Recent studies into the progress of OCD in children and adolescents over the long term are somewhat scarce. During the period 1970 to 1986, 47 Danish children (28 males and 19 females) were studied following a hospital admittance, or after having received treatment at a psychiatric outpatient unit. At the time of referral, they all fulfilled OCD criteria and were between the ages of eight and seventeen years. OCD onset, in the majority of cases, was at the approximate age of ten years. These children and adolescents were followed up in 1992, at that time being aged between eighteen and thirty-five years (the average age being twenty-seven years). These children and adolescents had, therefore, been followed up after a period of between six and twenty-two years.

In the following study, all the patients were interviewed and questioned about their obsessive symptoms in later life, any

additional symptoms, their social functioning, and also in terms of their characteristics.

The Actual Course of OCD

It was possible to divide the patients into the following four groups, based on how OCD manifested itself in them:

Group 1

No obsessive symptoms at all during adulthood; this group, therefore, no longer had OCD features, and only a few had other psychiatric symptoms in later life. The patients coped well and lived a normal social life. Several patients from this group did, however, suffer a constant fear of the obsessive symptoms returning at some later stage of their lives. They all recalled the time of obsessive symptoms as an altogether terrible and embarrassing time, and were afraid of once again being controlled by the undesired compulsions.

Group 2

Patients in this group suffered sub-clinical (mild) obsessive symptoms during adulthood, but these no longer fulfilled OCD criteria: the obsessive symptoms which were encountered periodically were not severe enough to qualify for an OCD diagnosis. The thoughts were therefore not inhibiting the normal pattern of life.

Group 3

Patients in this group suffered OCD sporadically (i.e. they underwent some periods with obsessive symptoms so severe that they fulfilled OCD criteria). In the intervening OCD-free period, most of the group experienced mild obsessive symptoms (i.e. sub-clinical OCD) which, although undesired and irritating, were not unbearable to the patients and they did not feel

controlled by them. The symptoms therefore did not interfere significantly with normal functioning. More severe symptoms tended to appear during periods of stress (e.g. around the time of exams, upon leaving home, during difficulties in relationships, when starting a new job etc.). These are factors which constitute a strain to all of us, but patients who had suffered childhood or adolescence onset OCD, reacted to this strain by developing obsessive thoughts. When the obsessive symptoms appeared (which might be for periods of between two and six months) they could be extremely stressful and crippling to everyday functioning. These were precisely the type of severe symptoms found in the fourth and final group.

Group 4

This group included patients who suffered chronically from OCD in the years following OCD treatment in childhood or adolescence. The obsessive symptoms were constantly present, and so severe and disabling that OCD criteria were fulfilled.

A relatively frequent 'change' in the obsessive symptoms occurred in patients who still showed signs of OCD in adulthood. For example, a person who, as a child, had experienced obsessive washing, might develop obsessive checking or some other form of ritualized behaviour in adulthood, which supersede the cleanliness rituals.

The Course of OCD Reflected in Academic Studies

The division of these four groups can be studied in Table 7.1 overleaf, in which it is illustrated that the four different courses show a practically equal frequency.

Fewer males had a sporadic course of OCD than females otherwise there was no significant difference between males and females.

Table 7.1 The Course of OCD in Adulthood in
47 Danish Children and Adolescents

	<i>No symptoms</i>	<i>Subclinical symptoms</i>	<i>Episodic course of OCD</i>	<i>Chronic course of OCD</i>
Boys	9(32%)	6(1%)	4(14%)	9(32%)
Girls	4(21%)	6(32%)	6(32%)	3(16%)
Total	13(27%)	12(26%)	10(21%)	12(26%)

In a study of the course of OCD in 54 American children and adolescents (36 males and 18 females), who were followed up between two and seven years after initial treatment, Leonard *et al.* (1993) found similar results. The children in this study had shown their first obsessive symptoms between the ages of two and sixteen years. They were followed up at the ages of 10 to 24 years. The authors found that 43 per cent still had OCD, 18 per cent had sub-clinical OCD, 28 per cent had obsessive compulsive features which were not severe enough to warrant a diagnosis, and only 11 per cent were completely symptom-free.

Do OCD Children and Adolescents Develop Other Psychiatric Illnesses in Adulthood?

In the two previously mentioned studies, a large group was found to have symptoms of some degree of OCD in adolescence or adulthood. Generally, these symptoms appeared only in the groups where patients were still suffering from OCD during adolescence. Very few healthy patients showed signs of other psychiatric symptoms.

In the Danish study, it was found that 30 per cent (as compared to 50% in the American study) experienced other anxiety symptoms, for example phobias relating to specific situations, claustrophobia, fear of experiencing an anxiety attack

or the fear of being in a crowded group. In some cases the patients felt the need for total social isolation.

Almost 20 per cent of the patients in the Danish study had developed a depressive state of mind. This applied to 56 per cent of the children in the American study. In the vast majority of cases, depression was secondary to OCD (perhaps released by the torture incurred by the obsessive symptoms). In patients suffering sporadic OCD during adulthood (those who experienced occasional depression) the depression itself always followed an OCD episode.

In the Danish survey, four females with childhood onset OCD developed anorexic nervosa during adolescence. These patients related that the anorexia nervosa commenced approximately two years after the worst obsessive symptoms had disappeared. All four patients still suffered sporadic OCD and, in the same way, their anorexia symptoms could be quite severe at times, and practically non-existent at others.

Only one patient in the Danish study had developed schizophrenia. In the American study, one patient was found who fulfilled some, but not all, schizophrenia criteria. There is therefore no evidence to suggest that OCD children and adolescents have a higher risk of developing a chronic mental illness in later life.

Social Functioning

Children and adolescents who continue to suffer from severe OCD in adulthood normally have poor social functioning.

The group of 47 Danish OCD children and adolescents were also examined with regard to social functioning. Generally, it was found that patients who suffered chronic or (frequent) sporadic OCD in adulthood were not able to cope as well as those patients who did not suffer from the strain of obsessive symptoms in adulthood. Approximately 20 per cent of the patients, all with OCD, managed badly. They were frequently in

contact with the psychiatric treatment system, frequently obtained out-patient treatment, or, in extreme cases, were admitted to hospital. Most patients received medication for longer periods of time, and the majority were awarded disablement pensions at an early age due to the severity of their mental illness. This group of patients managed poorly in many areas of everyday life. They experienced difficulty in coping alone, had problems with relationships, were unable to obtain an education (despite the fact that they were of average intelligence), and were victims of their time-consuming obsessive symptoms. A few patients had isolated themselves totally within their homes and were completely incapable of living a normal life (due to obsessive thoughts and actions). For this group, OCD resulted in a life which became so stressful that it can be compared to that of schizophrenic or severely afflicted manic depressive patients.

Approximately 40 per cent had an acceptable level of social functioning, in other words, more often than not they were able to live a normal life. During other periods, however, they were so incapacitated by their obsessive symptoms that they were unable to cope with their jobs, education, or private lives at an acceptable level. These patients required treatment and support sometimes, while on other occasions they were able to cope alone or with the support of parents and partners. This group of patients frequently abstained from social occasions particularly those patients suffering from obsessive thoughts relating to dirt and infection. These obsessive symptoms, therefore, led to social isolation and limited the possibility of development.

In the remaining group of patients, almost 40 per cent were able to lead a normal social life where they were not hampered by obsessive thoughts and actions. Possible sub-clinical obsessive thought, therefore, had no limiting effect on these patients.

It is important to point out that these studies of the short- and long-term course of OCD are built upon our knowledge of the

suffering, as seen in cases of severely afflicted children and adolescents who have been referred for treatment. It is easy to picture many milder forms of OCD in children who have not been referred for treatment and in those who have a better prognosis than described here. In their extensive study of approximately 5000 high-school students in the USA, Flament *et al.* (1988, 1990) found that 14 adolescents suffering from sub-clinical obsessive symptoms (not severe enough to warrant an OCD diagnosis) during the study, had either mildly obsessive symptoms two years later, or none at all. In other words, they found examples of mild obsessive symptoms, which continued in milder form, or even disappeared altogether following treatment, among adolescents who were not diagnosed as having OCD symptoms. Working on this basis, we can imagine that the number of other psychiatric symptoms are more limited in OCD cases which are not referred for treatment. It is, therefore, a possibility that if the condition is generally of a milder form, the prognosis is normally improved.

A study has been made into the prognostic factors (those factors which can predict the long-term course in individual children and adolescents suffering from OCD). It has not been established (perhaps contrary to expectations) that the age of onset had any influence on the subsequent clinical course of OCD. Nor has it been established that social factors in the patient's background have any significant effect on the clinical course of the disease. Conversely, it has been found that the severity of the OCD at the time of referral is significant: the more severe the OCD symptoms during childhood and adolescence, the worse the prognosis. Furthermore, there is a strong indication (Leonard *et al.* 1993) that mental illness in parents and tics during childhood can indicate a poorer course, whereas a positive reaction to medication during childhood indicates an improved prognosis.

An Example of Chronic Course OCD

Case 10

A fifteen-year-old girl was referred with severe obsessive symptoms in the form of a fear of dirt and infection, and obsessive washing. At the time, she was unable to attend school due to her obsessive symptoms. She was treated with medication and for some time her condition improved. Since then she has suffered constant obsessive symptoms, in particular her fear of dirt and infection, although she has been able to suppress the obsessive actions for periods of up to several years. They have only occasionally recurred. During the entire period of her treatment she isolated herself, and was extremely careful in her choice of social occasions. Being in the company of others activated her obsessive thoughts, and in activities outside her own home she would consider carefully where to stand, where to sit, and to whom could be close, with a minimal amount of risk.

In her mid-twenties, the girl developed obsessive counting. She felt compelled to count windows; when on a bus she counted all the seats; she counted shop windows, the number of items on display and so on. She described the counting mania as being less stressful than her anxiety concerning dirt and infection. During some periods, she was plagued by repetitive rituals and a quest for symmetry. In the course of a day she would repeat her rituals incessantly, before she felt convinced that she had done them satisfactorily. Furthermore, she would move furniture and other items in the house in order that they be placed in a completely symmetrical fashion.

When plagued with these obsessive symptoms, this patient was unable to do anything other than be controlled by them. She had no social life and was unable to concentrate on television; and could not read because of her obsessive thoughts. In her late twenties she was granted a disability pension, as she was completely unable to continue her working life. She now lives with her parents and rarely dares to venture outside the door.

An Example of a Sporadic Course

Case 11

A fourteen-year-old girl was referred for treatment due to a fear of dirt and infection, as well as obsessive washing. The symptoms disappeared more or less completely during treatment; however, less than two years later, she developed anorexia nervosa. The girl managed to regain weight and after another two years was of normal weight once more. She did, however, still suffer from anorexic thoughts of being overweight almost constantly; she was afraid of getting fat and occasionally was unwilling to eat.

Several years later she became subject to an uncontrollable desire to wash her hands, practically as soon as she had touched something, or if she spoke to other people etc. She did, however, manage to suppress the compulsions and described her control of the obsessive actions as being between 90 and 100 per cent. On two separate occasions (in her late teens and in her early twenties) she experienced a strong recurrence of obsessive symptoms. Both occasions were during major changes in her life: moving away from her parents, and starting an educational course which involved having to work during the summer holiday. At both times she once again felt compelled to wash her hands several times, for a period of some months. She also experienced the compulsion to wash her hands in order to obtain peace of mind from her anxiety relating to dirt and infection.

In conclusion, we can say that approximately 50 per cent of those who have suffered severe OCD in childhood or adolescence will still have OCD in adulthood (either chronically or sporadically). OCD patients do not have a higher risk of developing another mental illness, whereas symptoms of other anxiety-based illnesses, such as depressive conditions and anorexia nervosa, frequently manifest themselves during adulthood. The group of patients who, in adulthood, suffer from severe OCD will be socially disabled by their obsessive symptoms.

An Example of Sub-Clinical OCD

The sub-clinical course of OCD is characterized by the patient having obsessive symptoms either constantly or sporadically. These are, however, so mild and undisturbing to the patient that they do not fulfil OCD criteria for severity.

Case 12

A thirteen-year-old boy was referred for treatment with obsessive actions in the form of obsessive checking and attacks of rage. The compulsion to check caused him to spend his time checking, for example, that the windows were closed, that the lights were turned off, that the doors were closed and that the ashtrays in the home had been emptied. His checking behaviour continued throughout adolescence, although to a lesser degree.

In adulthood he frequently double-checks everything and walks around his flat several times before going to bed at night. Normally, it takes fifteen to thirty minutes each night for him to feel that everything is as it should be. Outside his own home he is able to control his checking compulsion without feeling any discomfort. The symptoms are, therefore, strongly reduced and have no limiting effect on his everyday life.

Chapter 8

OCD Seen in Relation to Other Mental Illnesses During Childhood and Adolescence

It is quite normal for other symptoms to appear simultaneously with OCD during childhood and adolescence. Several illnesses share certain common features with OCD. These conditions do not necessarily have the same basic spectrum of causes as OCD, but can present complications to making a diagnosis of OCD. Furthermore, these conditions can be significant in the treatment of OCD and have an effect on the prognosis. Such conditions will be described in this chapter. OCD seen in relation to normal development has been described previously, in Chapter 6.

Depression

Depressive symptoms often appear at the same time as OCD, since numerous depressive patients have strong obsessive symptoms. When a condition presents itself during a patient's adolescence, it is sometimes difficult to distinguish whether it is an initially mainly depressive condition or whether it is OCD (Thomsen *et al.* 1992). The number of children with OCD who also have depressive symptoms is high, and it is frequently difficult to ascertain which symptoms appeared first, the obsessive or the depressive symptoms.

Depression in children is, in many countries, a stigmatized subject, perhaps more so in Europe than in the USA. As a result, the diagnosis is made less frequently in children prior to puberty in Europe than it is in the USA. All research indicates that it is a rare condition in children in its pure form (as seen in adult patients). In recent years, however, there has been increased interest in depressive symptoms in childhood, as a consequence of the belief that there are a number of undiagnosed depressed children who should be referred for treatment or offered support.

Severely depressed adolescents will, normally, experience self-blaming thoughts about disasters or accidents, even the misery of the entire world. These thoughts and the self-blame are, of course, completely unrealistic. The adolescent can, for example, feel that he is responsible for averting the eruption of a volcano in another part of the world, or a train catastrophe abroad. The depressive thoughts recur and the adolescent is unable to rid himself of them. Unlike the thoughts of OCD children and adolescents, these thoughts are not ego-dystonic. They have a sense of reality to the adolescent. He truly believes that he is the cause of these happenings. He cannot, through rational thought, correct his belief and he is unable to put any distance between himself and the depressive thoughts.

Furthermore, the depressed adolescent will frequently experience suicidal thoughts and so there is an increased risk of suicide, which is not the case with adolescents with OCD (Rapoport 1989, Thomsen 1994b). The depressed patient will suffer from insomnia, become inhibited in psychomotor activities (i.e. activities of the mind and body are decreased and inhibited). This is manifested in the form of slow speech and belated answers, slow movements, reduced appetite and constipation. A number of depressed patients will also suffer from hallucinations. The young adolescent may experience visions of terrible things which she believes are actually happening close to her, or she can suffer from olfactory or

auditory hallucinations. These symptoms are not seen in adolescents with OCD.

Despite the fact that OCD and depression frequently appear simultaneously, they are not two aspects of the same condition. Depressive thoughts and obsessive thoughts vary in shape and context. Neuro-physiological experiments and results of the treatment have shown two distinctly different conditions.

Schizophrenia

Schizophrenia is a severe mental illness which normally presents itself for the first time during adolescence, or early adulthood. It is extremely rare that schizophrenic symptoms are seen in children prior to the age of fourteen or fifteen years of age. Cases of typical schizophrenic symptoms have, however, been described with regard to small children as young as seven or eight years (McClellan and Werry 1992). Schizophrenia often develops without any visible deviation in the child's development. There is, however, a tendency towards social isolation in adolescents who develop schizophrenia, as well as a slight deviation in the pattern of contact, and unusual interests during early childhood and adolescence.

One significant symptom in the young schizophrenic patient is hallucinations, most frequently in the form of visions or hearing voices which do not exist. In the majority of cases, the young schizophrenic cannot be convinced that the voices or visions are something that he alone imagines and that no one else sees or experiences. A propensity to delusions is another symptom common to schizophrenia. The adolescent may feel pursued by specific people or by an organization, or may feel that he or she has a certain mission to fulfil, sometimes following some form of divine intervention. Unlike the delusions which occur during a depression, schizophrenic delusions are self-blaming and depressive in substance. In contrast to an adolescent with OCD, the schizophrenic does not consider the thoughts to

be ego-dystonic. He cannot distance himself from them and does not experience them as being weird or bizarre.

Finally, the young schizophrenic also suffers from thought disruption, causing him to feel that his thoughts are controlled, or influenced externally. He feels that he is able to control the thoughts of others, or that others are able to steal his personal thoughts, or that his thoughts have merged with those of others. Once again, this in contrast with the adolescent OCD patient, who clearly identifies the obsessive thought as an undesired and inhibiting product of her own mind, without any form of external guidance. Thought disruption is an indication of psychotic thought, whereas the obsessive thoughts present in OCD are non-psychotic.

A special interest has been taken in ascertaining whether there is a connection between OCD and schizophrenia. Some have described what they refer to as an 'obsessive psychosis' (Insel and Akistal 1986). By this, they refer to obsessive thoughts which are so severe and integrated into the OCD patient's personality that they have an almost psychotic tinge to them. The authors describe a spectrum of obsessive thoughts, ranging from mildly obsessive thought (occurring almost daily), to extremely severe, almost psychotic obsessive thoughts. Conversely, Rapoport, Elkins and Langer (1981) found it interesting that OCD children and adolescents could be so affected by their obsessive thoughts and actions, but at the same time regard the thoughts as being ego-dystonic, without having thought disruption or delusions.

In smaller children with OCD, the obsessive thoughts may have 'a touch of magic', and the child may experience serious difficulty in rationally distancing himself from them and regarding them as being irrational and ego-dystonic. In these cases, however, it is quite common that as the child grows up, and his senses develop, he is able to distance himself from the obsessive thoughts (if they are still present).

Studies into the case histories of children and adolescents with pure OCD illustrate that these children do not develop a higher risk of developing schizophrenia than other children (Leonard *et al.* 1993, Thomsen 1994b). Schizophrenia during adolescence may, however, appear initially with symptoms similar to OCD. The course of the illness, twelve months from the onset of the first visible symptoms, will determine whether the obsessive thoughts are a true indication of a more deeply-rooted psychopathology, involving thought disruption and delusions, and an initial schizophrenic development.

Finally, it is possible for schizophrenia and OCD to appear simultaneously. With regard to new diagnoses, it has to be taken into account that one may suffer from various mental disorders simultaneously. If OCD appears in addition to a schizophrenic disorder, there is every indication that the prognosis will be considerably worse.

Anorexia Nervosa

Anorexia nervosa is normally seen in adolescents at approximately the age of thirteen to fifteen years. The disorder is most frequent in females (only one out of ten anorexic patients is male).

An indication of anorexia nervosa is, initially, major weight loss (of at least 15 per cent) and a cessation of menstruation due to hormonal imbalance. Mentally, a change is also noticeable in the patient. Her thoughts centre on food and calories and she experiences anxiety regarding 'getting too fat'. She has an obviously distorted view of her body and finds herself fat and ugly, despite the fact that, in the opinion of others, she is practically emaciated. Eating results in a severe case of bad conscience, and as part of the fear of getting fat, an exaggerated desire for obsessive exercise develops, together with vomiting and taking laxatives.

Numerous studies suggest that anorexia nervosa and OCD are related disorders (Rapoport, Swedo and Leonard 1992, Rasmussen and Eisen 1992). From the clinical point of view, there are three factors supporting this (Kaye *et al.* 1992). Adolescents with anorexia nervosa often score highly on a rating scheme of obsessive symptoms and features. Some adolescents with OCD score higher than others on rating schemes related to eating disorders. Finally, similarities in the two conditions have been established regarding the brain's transformation of neurotransmitters (Crisp, Lacey and Crutchfiels 1987).

Anorexia nervosa has been treated with the same medication as OCD, some with good results. In the Danish study of 47 children and adolescents with OCD (Thomsen 1994b), four females were found to have developed anorexia nervosa. In a Swedish study of 54 adolescents aged between 15 and 16 years (all with anorexia nervosa), Råstam, Gillberg and Gillberg (1995), established that four adolescents developed OCD (obsessive washing) some years later.

Some authors include aspects of anorexia nervosa symptoms in the obsessive compulsive spectrum. There are, however, some significant differences between the obsessive thoughts seen in OCD and the distorted view of the body associated with anorexia nervosa. The girl with anorexia nervosa will not, normally, be able to perceive her fear of getting fat rationally, despite the fact that she weighs far less than average weight when taking height and age into account. She does not consider the fear of getting too fat as being ego-dystonic, undesirable, or an annoying obsessive thought. The fear is more similar to a delusion, which often makes it difficult to work with an anorectic patient, as motivation towards change is either limited or non-existent. In adolescents with anorexia nervosa, obsessive symptoms which are unrelated to weight or food can appear suddenly. They may appear in the form of rituals, which the young person must perform (e.g. obsessive washing, or obsessive exercise). These rituals may be undesirable to the girl herself, and

she may experience the need to suppress them. It is not yet known exactly what effect obsessive symptoms have on the prognosis of an adolescent with anorexia nervosa.

Tourettes Syndrome and Tics

Tics are defined as involuntary, frequently unexplainable, motor movements. They can appear in the face or be localized in the arms and legs (or even in the throat). Severe tics may appear as distinct twists of the body. One particular syndrome, known as Tourettes syndrome, and named after a French neurologist, consists of tics involving the head, the facial muscles or the body, combined with a special form of tics named 'sound tics'. Sound tics appear in the form of coughs, clearing one's throat, sniffing, grunting, or even articulated words, which may be of an obscene nature.

Tics, particularly the multiple and complex types, may be difficult to differentiate from clearly obsessive actions, especially in the case of OCD children who suffer from just obsessive actions, not obsessive thoughts. In the majority of cases, tics are one or two coherent, involuntary motor movements, whereas obsessive actions constitute a more complex pattern of behaviour. In cases where a simple action, such as spitting or winking, is connected to an obsessive thought about dirt and infection (e.g. the fear of swallowing bacteria), or about causing harm to others (e.g. by not looking at them), this action is referred to as an obsessive action. The action therefore has an apparent, although irrational, purpose. The resistance which the child attempts to exercise against the obsessive actions also separates them from simple tics.

Tics often appear simultaneously with OCD. Swedo *et al.* (1989) found that 20 per cent of children with OCD also had tics. However, children and adolescents with Tourettes syndrome were excluded from this study, rendering it impossible to assess the frequency of OCD and Tourettes syndrome occurring

simultaneously. Of twenty Danish OCD children referred for treatment, eight were found to have tics, and a further two suffered from Tourettes syndrome (Thomsen 1994a).

Obsessive symptoms were also found to be most common amongst children with Tourettes syndrome. In relatively large groups of American children with Tourettes syndrome between 60 and 80 per cent were found to have obsessive symptoms of differing severity.

An American geneticist, who has for many years studied Tourettes syndrome and OCD, has hinted that OCD and Tourettes syndrome may even be hereditary. He and his colleagues (Pauls *et al.* 1993) found an increased frequency (up to five times) of tics and Tourettes syndrome in relatives (particularly parents) of OCD children, which they argued in support of this claim. Likewise, an increased frequency of OCD is found in relatives of children with Tourettes syndrome. This indicates that in some cases tics may disappear in OCD children and adolescents as they grow up, even though they still have OCD symptoms in adulthood (Thomsen 1994b; Pauls personal communication).

Autism

Autism is a radical development disorder and an in-born handicap which is characterized by a disruption of social intercourse and language problems. The stereotypic behaviour of autistic children is characterized by repetitions, rocking or swaying movements, a distinct need for an exact repetition of events, and a narrow field of interests. At the same time, approximately two-thirds of autistic children have learning disabilities.

On the surface, much of the stereotypic obsessive action seen in autistic children appears similar to the obsessive symptoms seen in OCD. Autistic children, however, lack the ability 'to put things into perspective' the ability to explore what is

happening within themselves, or with others. It is this lack of ability which is the basis for differentiating between the ego-dystonic, obsessive thoughts and actions of the child with OCD, and the thoughts and patterns of behaviour which are integrated in the personality and which are not perceived as ego-dystonic symptoms. Autistic children do not consider their stereotypic behaviour to be invasive, undesired, or annoying. Wing (1981) suggests that the term 'repetitive actions' be used to characterize the stereotypic behaviour of autistic children.

Asperger Syndrome

Asperger syndrome is a milder form of autism. The condition appears most frequently in males and is characterized by disruptions of social intercourse (Jørgensen 1994). A child with Asperger syndrome will, for example, lack the ability to interpret and respond to social interaction through appearances, facial expressions, body language and gestures. Furthermore, the child will have difficulties with developing friendships, mutual involvement in interests, activities, and emotional relations. The child's ability to empathize with the feelings of others will be limited, as will his ability to modulate his own behaviour whilst in a social situation (totally lacking appropriate social behaviour) and his awareness of what is happening between other people. In contrast to autism, the child's intelligence is usually normal and there is, also, normal speech development, despite the fact that the child will not often use language as a means of communication.

Adolescents with Asperger syndrome are also characterized by their special interests. Their particular special interest is all-consuming and fills their life completely. All conversation revolves around this interest and the adolescent would prefer to occupy him- or herself with it constantly. Subjects of these special interests may include specific, historical persons or events, train times, cars or the engines of aeroplanes, technical

structure or antique coins. The special interest of the adolescent with Asperger syndrome is desired and is an integrated part of him or her. This distinguishes it from the obsessive thoughts of the adolescent with OCD, which are ego-dystonic and undesired.

The exact incidence of Asperger syndrome is not known, but the condition is probably somewhat more frequent than originally assumed. The Swedish professor of child psychiatry Christopher Gillberg and his colleagues have found that 0.5 per cent in children aged between seven and seventeen in Gothenburg suffer from Asperger syndrome (Ehlers and Gillberg 1993).

Literature dealing with the relationship between OCD and Asperger syndrome is extremely scarce, and the joint appearance of OCD and Asperger syndrome has rarely been described. Szatmari and colleagues (Szatmari *et al.* 1989) compared 24 high-functioning, autistic children with 24 non-autistic children who had other, socially-related problems. They found that 8 per cent of the children with Asperger syndrome, 10 per cent of the high-functioning autistics, and 5 per cent of the children with other conditions, also suffered from OCD. From these findings the authors concluded that one of the reasons for the possible under-diagnosis of syndromes similar to Asperger syndrome is the existence of more visible symptoms, such as OCD. It is possible that the obsessive symptoms camouflage the personality-related difficulties which characterize the adolescent with Asperger syndrome.

In the Danish study of 47 children with OCD (Thomsen 1994b), two male adolescents fulfilling the criteria for Asperger syndrome were found. Both still suffered from OCD in adulthood, and considered their obsessive thoughts and actions ego-dystonic. They had suffered from them and actively resisted them since childhood. The following case history describes the history of one of these patients.

Case 13

A twelve-year-old boy was referred for treatment: he checked things repeatedly, forced himself to observe various rituals, and suffered from a fear of death and disturbing mental images of dead people. Furthermore, he suffered enormous difficulty in mixing socially with his school friends and spent most of his time in front of a computer, to which he was completely devoted.

During adolescence, he was described as having a 'stiff and inflexible' appearance. His use of language and his vocabulary were somewhat 'mechanical'. He had no sense of humour and found it hard to make friends because he was unable to understand what was actually going on between other people. He was extremely polite, in fact, almost excessively courteous.

He explained that he had no social circle in which to operate and this caused him no concern. As a result of his situation, he occupied himself with computer programmes. At present, he still suffers from checking rituals, although to a somewhat lesser degree. He checks doors, windows and lights. He describes his obsessive thoughts as being weird and peculiar and accepts the fact that they are 'strange'.

Empathy Disorder

Empathy disorder is a category which is not considered part of the official diagnosis of symptoms. It describes the lack of ability in children to familiarize themselves intellectually and emotionally with other people.

The ability to empathize is something we all use in a number of situations. We use it when weighing up social situations, picking up a prevailing mood, understanding non-verbal communication, and assessing the mental state of others (perhaps by reading their facial expressions). All these things enable us to cope amongst other people, to follow our intuition and to be flexible with regard to what is expected of us in social situations. It is, however, these things which present the greatest difficulty for children and adolescents with empathy disorder.

The term 'empathy disorder' is used quite commonly, but has, in this form, been defined by Christopher Gillberg (1992). It would appear that empathy disorders exist in varying degrees.

Whether children with OCD have difficulty with these aspects of social intercourse was the subject of a self-performed study of 24 children and adolescents who had been referred for treatment. Almost 25 per cent of the children suffered from empathy disorder of sufficient severity to cause a social handicap. There was, however, no greater frequency of occurrences of empathy disorder among OCD patients with empathy disorder than was found in a control group of children and adolescents with other emotionally-related disorders.

Children who suffer from OCD and empathy disorder simultaneously must be offered support, in addition to the normal OCD treatment, to enable them to deal with social events (which present the greatest difficulty). It is, however, beyond the scope of this book to describe social programmes for children with an empathy disorder.

To reach a conclusion regarding the relationship between OCD and conditions of the autistic spectrum (in which Asperger syndrome and severe empathy disorders are included), it must be said that it is possible for the conditions to appear simultaneously. It is, however, more common for OCD children to behave normally in social situations, and to have normal contact with others. The social isolation seen in children and adolescents with severe OCD is caused partially by the obsessive thoughts and the time consumed by obsessive thoughts and actions, as well as the fear of subjecting themselves to things which may activate obsessive actions for example, fear of dirt and infection.

Selective Mutism

Selective mutism is a rare condition in which the child ceases to speak in certain situations, despite having an otherwise normal

use of vocabulary. The condition may present in early childhood at around the age of three to four years, but normally causes greatest difficulty (leading to treatment) when the child reaches school age. Most children suffering from selective mutism will speak normally at home, but not outside it. The condition is, naturally, a severe handicap to the child, affecting both the educational learning process and social development.

Many children with selective mutism are described as being extremely bashful and shy with strangers, and several also have somewhat obsessive behaviour specific things must be done in a certain way, and habits and routines must be strictly adhered to. In the cases of some children with elective mutism, it has been found that one of the parents has suffered with the same difficulties in earlier life.

As yet, little is known about the long-term history of children with selective mutism. It is not yet known whether they are more likely than other children to be socially isolated, shy and obsessive. Experience supports the fact that a change of environment, such as admittance to hospital, may, in some cases, encourage the child to speak outside the home.

In the cases of some children with selective mutism, the obsessive character is so distinct that the criteria for an OCD diagnosis of obsessive thoughts and/or obsessive actions is fulfilled. There are, for instance, cases of obsessive washing, rituals and repetitive behaviour. A few children with selective mutism have been able to describe how the mutism took the form of an obsessive symptom. In these cases, the child refers to obsessive thoughts and the fear of some terrible happening, should he or she speak in the presence of others. The children were able to speak, even when other people were just outside the door, but stopped as soon as someone else entered the room.

The relationship between OCD and selective mutism is, as yet, not clear. If obsessive difficulties are found in a number of cases, it may be possible in cases of selective mutism to use treatment similar to that used in OCD.

Attention Disorder

We find many different terms describing children with attention disorders in the literature. One term is now less frequently used MBD (Minimal Brain Dysfunction). Professor Gillberg has coined the term DAMP (Disorder of Attention, Motor Control, and Perception). In American literature, one finds the term AD(H)D, which is short for Attention Deficit Disorder (with or without Hyperactivity).

The condition becomes apparent in children at an extremely early age and is characterized by difficulty in concentration, co-ordination problems, a frequent (but not constant) coordinatory-related hyperactivity, and specific difficulties during the learning process (e.g. dyslexia or number-blindness). The child will find it hard to maintain focus for longer periods of time, and will be easily distracted and disturbed by irrelevant sense impressions. In many cases, the child will also be uneasy and confused.

In a number of OCD children, attention and concentration difficulties are found. Children who suffer from OCD and DAMP simultaneously are seldom physically uneasy and confused, but are more troubled by their lack of ability to retain focus.

Amongst our Danish group of 23 OCD children and adolescents, we found that six patients also suffered from attention deficit (Thomsen and Mikkelsen 1995). In a similar, American, study of 70 children (Swedo *et al.* 1989), seven children (10%) were found to have both OCD and attention disorder. In many OCD children and in all children with DAMP, problems with perseverance were found (i.e. the child's attention followed the same path, repeating a specific mental or physical action), as well as difficulty in switching focus.

In the following survey, the frequency of additional symptoms is presented, based on a Danish and several American studies of OCD children and adolescents (Flament *et al.* 1990; Leonard *et al.* 1993; Swedo *et al.* 1989; Thomsen and Mikkelsen 1991).

Leonard *et al.* 1993; Swedo *et al.* 1989; Thomsen and Mikkelsen 1991).

Table 8.1 The most frequent additional symptoms
in OCD children and adolescents

Anxiety	3050 per cent
Depression	1530 per cent
Phobias	1020 per cent
Behavioural disorders	720 per cent
Attention disorder	225 per cent
Empathy disorder	25 per cent
Eating disorders	1235 per cent
Tics	1560 per cent
Epilepsy	015 per cent
Selective mutism	015 per cent
Asperger syndrome	010 per cent

Learning Disabilities

OCD has been described in learning-disabled children (Vitiello *et al.* 1989). The majority of OCD children and adolescents are of average intelligence, and no significant intellectual differences have been found between them and other healthy children and adolescents. In some cases, it has been established that OCD children and adolescents find verbal exercises easier than practical ones in IQ tests. Other studies (Rapoport 1989; Thomsen and Mikkelsen 1991), however, have found no significant differences in the IQ score for both verbal and non-verbal exercises.

Personality Disorder

'Personality disorder' is another term for a diverging personality, and is used of disorders which are believed to be deeply integrated in the personality, and life-long in duration; in other words, they are embedded in the character of the person.

There are many different characteristics and types of personality. Even though some of them are dramatically different from our own personalities and can be regarded as irritating and undesirable, most personality types can be considered 'normal'. Only when these personality features become disabling to the individual, socially or emotionally, or the individual finds them annoying and unpleasant, can it be said that they represent a diverging personality, or a personality disorder.

One is obviously most reluctant to diagnose personality disorders in children and adolescents. This is largely due to the fact that the child's or adolescent's personality is not fully shaped, and is still in the stages of development.

It would probably be fair to say that the majority of personality disorders commence at approximately the age of sixteen to eighteen years. This, once again, must depend on the individual child's maturity and potential for further personality development.

In order to confront some of the confusion surrounding OCD and one sort of personality disorder, OCPD (Obsessive Compulsive Personality Disorder having an obsessive type of personality), it is necessary to describe the criteria used in characterizing OCPD. According to the ICD-10 diagnosis system (WHO 1992), the obsessively structured personality is characterized by a feeling of inner insecurity and doubt, an excessive self-consciousness, perfectionism and a pedantic orderliness, a tendency toward wanting to control others, a hesitant carefulness, rigidity and stubbornness. Intruding and undesired thoughts and impulses may appear, although not to the same degree as in OCD.

A significant difference between OCD and OCPD is, therefore, that even though a person with OCPD has obsessive features, he or she recognizes them as part of his or her own personality. They are not considered to be ego-dystonic obsessive thoughts or actions from which he or she would rather free.

According to normal psychoanalytical theory, criteria for OCPD (the character neurosis) should be fulfilled in order for OCD (the symptom neurosis) to appear. I will now look at several examples of OCD, which, on the contrary, are apparently unrelated to the condition known today as OCPD.

The appearance of various personality disorders in adult patients with OCD has been studied by Joffe *et al.* (1988). It has been found that OCD and OCPD often appear simultaneously, but that this is not necessarily so. The most frequent personality disorder found in adult OCD patients is the dependent type of personality, the type of personality which is characterized by a lack of independence and being dependant upon others.

In a study carried out in Denmark, the appearance of various personal features and disorders in adolescents who suffered childhood onset OCD was registered (Thomsen and Mikkelsen 1993). In all, it was found that almost 70 per cent had some type of personality disorder, and that the most frequent personality disorders were the dependant and the obsessive personalities. Furthermore, the study found that when it came to personality disorders, the patients with OCD did not differ significantly from a control group consisting of former child and adolescent psychiatric patients with illnesses other than OCD.

In conclusion, it is safe to say that the most common personality divergence in adolescents with childhood onset OCD is the dependant personality, whereas the obsessive personality is no more common in OCD patients than in adolescents who have suffered other mental illnesses during childhood.

The Theory of an OCD Spectrum

Judith Rapoport, who leads a major international child and adolescent psychiatric research centre in the USA (the National Institute of Mental Health in Washington), has described a number of cases which she believes to be close to OCD, and which could be said to be part of an obsessive compulsive spectrum.

Trichotillomania is a condition where the patient plucks eyebrows or pulls out hair in an obsessive manner. The condition is relatively rare, but affects both children and adults. Serving to confirm that trichotillomania, biting one's nails and OCD are closely related is the increased frequency of these conditions which is found in families of OCD children. Furthermore, it has been found that a number of patients with trichotillomania can be treated with the same medication used in the treatment of OCD.

Judith Rapoport suggests that OCD, trichotillomania and biting one's nails should be considered an expression of some extremely basic patterns of preening oneself, as seen in animals. These behavioural patterns are released as a strongly exaggerated action, which becomes circular, and which is fairly independent of willpower and external factors.

Case 14

The father of a boy who had been referred with OCD had developed trichotillomania during the previous year or so. The development of symptoms materialized during stress brought upon the family by job loss and a subsequent, social decline. He tore huge clumps of hair from his head. He could feel the irrational and painful aspects of his obsessive actions, and attempted to stop them, but was unable to do so.

Conclusion

Some authors include various impulsive disorders in the obsessive compulsive spectrum. These disorders are characterized by a person acting upon sudden impulses, without the ability to postpone or suppress them. Thus, kleptomania (obsessive stealing), pyromania (obsessive desire to set fires), bulimia (bingeing, followed by vomiting), ludomania (a passion for playing), and certain forms of alcoholism and nymphomania (obsessive sex) are considered by some to be strongly related to OCD.

It must be said, however, that distinctly obsessive thoughts are found very rarely in patients suffering from the above-mentioned disorders of impulse control. This contradicts the theory that they may have a close relationship to OCD. However, it has been found that a number of patients with impulse disorders can be relieved by the same medication as that given to OCD patients. The relationship between OCD and the above-mentioned conditions still require further investigation.

Chapter 9

The Treatment of OCD

Most of the literature describing the treatment of OCD relates to adult patients. However, in more recent years, several exciting descriptions have emerged of the latest treatments, which can be applied to children and adolescents as well. This chapter examines the various forms of treatment and traditions available. In this century, OCD has been treated in many totally different ways. I will concentrate largely upon the newest and apparently most effective treatment strategies although, in order to provide an historic view, an alternative form of treatment will be summarized towards the end of this chapter.

The treatment of OCD is complicated by the fact that the exact cause of the illness is unknown. Treatment is therefore built upon the practical experience we have of what is actually most effective. This does not mean that the current treatment models are incorrect, but rather that we are not always aware of the risks involved; for example, whether the medication affects the brain, or exactly why it has any influence on the brain, or, in the case of psychotherapy, in what particular way it affects the brain.

The most usual course of treatment, which according to all studies has been the most effective in both long-and short-term therapy, is a combination of behavioural and cognitive therapy, together with the use of anti-depressant medication. In milder cases of OCD behavioural therapy alone has been sufficient, but in more severe cases of OCD medication is normally necessary, as a support. It is, however, most important to emphasize that

medication alone is not an effective form of treatment. These two treatment strategies will be described individually.

Behavioural and Cognitive Therapy

Cognitive therapy works with the intellect and the thoughts, as opposed to psychoanalytic therapy, where one focuses upon feelings, associations and the unconscious (i.e. enters into the thought process to an extensive degree and, working with the child or adolescent, examines ways of changing the thoughts themselves). In behavioural therapy, cognitive techniques are applied.

Behavioural therapy was first described in connection with OCD by Meyer (1966). In his treatment of OCD patients, he deliberately exposed his patients to the situations that they actually feared (e.g. he asked a patient suffering from compulsive thoughts concerning dirt and infection to touch a door handle a specific number of times). The patient experienced a strong, irresistible need to wash his hands immediately, and under normal circumstances he would have rushed to the wash-basin. But as part of the behavioural therapy, he was hindered in rushing to the wash-basin and, therefore, hindered in washing his hands. Initially, he was made to wait just a few minutes after being confronted with the compulsion-inducing situation (touching the door handle), but this was followed by a gradual increase in the length of time he had to wait before being permitted to wash his hands. Despite the violent fear and discomfort the patient experienced, he realized that nothing had actually happened that the compulsive thought had told him would happen as a result of not washing his hands (i.e. sickness, death or even an accident).

A behavioural therapeutic programme can be applied in the treatment of children and adolescents suffering from OCD. It must be perfectly adapted and is an extremely specialized exercise. Parents' support of the programme within the home is

very important, and they should always (particularly in more severe cases of OCD) be involved. Generally, one can say that the younger the child, the more intense the parent's involvement in the treatment of OCD should be.

First of all, it is important that the child or adolescent, as well as the family, defines OCD as an illness for which the child him-or herself is not responsible. The family, as well as the child, is often weighed down by the child's numerous compulsive actions, and parents frequently feel that, sporadically, the child in fact is able to control the compulsions. The child therefore carries around the idea that she experiences thoughts which are 'wrong', or that she does things 'wrongly', which she should actually be capable of changing. It is important to perceive OCD as an illness which is forced upon the child, that the child is the victim, and that the illness must be fought against in the form of treatment. The next important step is (together with the child) to specify the extent of the compulsive actions when they occur, in which situations they are most extreme and how often the child is invaded by compulsive thoughts.

In addition to this it is, of course, important to establish the exact content of the compulsive symptoms, and to examine which compulsive thoughts actually motivate the compulsive actions, as described by the child. In the majority of cases it will be extremely difficult for the therapist to identify all the child's compulsive thoughts, partly due to the number of them and partly because the child will try to keep the most embarrassing and troublesome compulsive thoughts to himself. It is definitely a good idea to make a note of the child's compulsive symptoms, exactly as he describes them. This is recommended both for the therapist (in order to jog his memory) and for the child (as a form of support when the struggle against the compulsion begins). A written account of minor successes can be kept, as well as any difficulties in relation to the compulsive symptoms.

One can ask the child to give the compulsive symptoms a nickname, in order to remind him that the compulsive symptoms

are his 'enemy'. Compulsive symptoms are not merely 'bad habits', but rather something which comes from the outside and invades the child, and which now the child must try to fight. The family should also be introduced to this nickname, in order that this designation can be introduced at home. After thorough registration of the compulsive symptoms (from one, or perhaps two sessions), one is able, with the help of the child, to establish which compulsive symptoms are the most troublesome. Following this, one must select some of the compulsive symptoms, in order that the 'battle may commence'. It is most important in terms of the child's motivation, and subsequently the treatment process, to select a troublesome symptom which the child wants particularly to free himself of.

On the other hand, one must not choose a symptom which is too extensive and invincible, as it is important to maintain the child's enthusiasm with minor successes along the way. The child's motivation will frequently appear as a form of ambivalence. In one way, the child is desperate to be free from the strain of the compulsive symptoms, while in another way, he will be afraid to release them (in case something should happen as a result of fighting against the symptoms). This total dependence upon the compulsive thoughts and the difficulty in maintaining rationality is most pronounced amongst younger OCD children.

In subsequent consultations, the registration of any change is of vital importance; also, a note of the conversation with the child about minor (or more significant) successes or persistent difficulties. One can alternate between consultations with the child alone and with the family as a whole. When the entire family is present (perhaps every third or fourth session), the most important issue is to obtain the support of the parents with regard to 'exercises at home', as well as obtaining information concerning the situation on the 'home-front'. The importance of conducting some consultations with the child alone is partly because it is easier to engage the child in an in-depth conversation (which is an extremely important part of therapy)

and partly because it is easier for the child to reveal compulsive symptoms if he or she is alone with the therapist.

Frequently, the child will need many consultations and only after a course of intensive treatment is it recommended that treatment sessions take place at longer intervals (in order to keep the patient on the right track, symptom-free). In some cases, admittance to a child and adolescent psychiatric ward will be recommended, but this is far from being a necessity in many cases. The advantage of admittance to such a ward is that within its environment one is able to offer the child intensive support in her struggle against the symptom. In addition, daily behavioural therapy programmes can be arranged and one can be sure that the child carries them out. One of the disadvantages of admittance is the possibility that some of the child's compulsive symptoms, such as checking doors, are only present whilst she is at home and are not visible during the period spent within the ward, particularly in the beginning. Yet the disadvantages of out-patient therapy are that the child sometimes experiences difficulty in fighting the compulsion at home, and that the agreed 'home exercises' are difficult to complete. When considering the possibility of admittance to a ward, as opposed to out-patient treatment, one must also take into consideration such factors as the severity of OCD, the family's support of the child, the possibilities of entering into a treatment programme and the child's schooling and outside activities.

Home Assignments

In exactly the same way that other accomplishments football, tennis, music require training, and then more training, the struggle against OCD involves discipline. Constant training and home assignments can be an essential part of out-patient therapy. It is most important that the therapist explains the content of the exercises thoroughly to the child, and that they are both in agreement as to the precise content of them. The child must fight

against the compulsive symptoms each day, whilst the home assignments must be time-limited and specific, thus being under the child's control. The idea behind home assignments is that, within the home, the child exposes himself to compulsion-inducing circumstances and subsequently attempts to resist the urge to carry out the resulting compulsive action. The child must only undertake these assignments to such a degree that he feels able to control them, as it is better for him to experience a minor success than a major disaster.

Compulsive actions are generally easier to treat using behavioural therapy (as well as being easier to register) than are compulsive thoughts (which are, naturally, hidden). Various techniques for the treatment of compulsive thoughts have been developed (e.g. in the form of 'thought prevention' exercises, or 'resistance' to unpleasant thoughts). The prognosis for children and adolescents with predominant compulsive actions is also expected to be better than in children and adolescents with extremely, or exclusively, predominant compulsive thoughts.

The Role of the Family in Behavioural Therapy

It is absolutely essential to include the family, particularly the parents, in the treatment of children and adolescents with psychiatric disorders. This is also relevant in the case of OCD. It is the experience of most therapists that the family is deeply involved in the child's compulsive symptoms and 'systems', when the child or adolescent is presented for treatment. In the majority of cases, the parents have had to adjust to the child's symptoms.

Their consideration for the child's symptoms may, for example, have resulted in the parents not receiving guests at home because guests may bring impurities and bacteria to the house. Possibly the parents have been unable to visit other families, because the child fears that he will contract germs from the homes of others. The mother has perhaps had to wash the

child's clothes and bedclothes a ridiculous number of times, in an attempt to reduce the child's fear of dirt. Other parents have experienced the necessity of reassuring their child of one thing or another, up to a hundred times or more each day, as well as having their evenings monopolized by the child's various rituals.

If the parents adjust to the child's compulsive symptoms to such a degree that the symptoms completely control family life, these symptoms may be exacerbated. There is of course no vicious intent when parents allow the compulsive symptoms to increase over long periods of time. A child with severe compulsive symptoms often leaves his parents in a state of despair and feeling completely powerless. On many occasions when parents have tried to resist the child's compulsion, they have seen their child react with fear, panic and discomfort: understandably, few parents are able to subject their child to such conditions. It is, therefore, ultimately very important that parents are included in an organized, controlled treatment programme, which gradually reduces the dimensions of the compulsive symptoms.

Detailed information explaining the knowledge we have with regard to OCD is a must from the very beginning. Parents are frequently troubled by feelings of guilt, as are the majority of parents of children who suffer from psychiatric disorders. They often feel that they are unable to do the 'right' thing. Brothers and sisters can be irritated by the situation and feel left out, whilst the child himself feels responsible for the family turmoil, which he believes to be his fault. Due to the many and complicated feelings involved, it is most important (particularly at the beginning of treatment) to concentrate upon exactly how the compulsions have affected each individual member of the family, as well as the family as a whole. At this stage, it is most important to emphasize that OCD is an actual illness, that it has affected the child and subsequently has influenced the entire family. Naturally, many parents ask questions such as: 'How long

will our child experience these compulsive symptoms?' and: 'Should they always try to intervene and stop the child's rituals?' There are no simple answers to questions such as these. The important point is that parents, along with their child, enter into an agreement designed to obtain a perfect balance between their being deputy therapists, and being parents.

During family consultations, it is important to establish exactly how far the parents should be involved in home assignments. This must, largely, be determined by the child herself, depending on how much intervention she desires, or how much support is required from the parents. I have frequently been asked the question: 'Will the treatment of one specific compulsive symptom cause another to flare up?' To this question I must answer both yes and no. In severe cases of OCD, I have occasionally seen that the treatment and disappearance of one compulsive symptom has been instrumental in the triggering of others. One must remember that in many children severely affected by OCD, the course of the complaint can be so difficult that they will experience compulsive symptoms in varying degrees for the rest of their lives. It can be valuable, when treating these children, to attempt to change the nature of the compulsive symptoms in such a way that they are more socially acceptable, become less troublesome and, one hopes, less time-consuming.

Treatment Evaluation

Measuring the actual effect of what has been discussed can be extremely difficult. Exactly how long a programme of treatment should last varies in each individual case. From the assessment of the severity of the compulsive symptoms, one may wonder whether the treatment has been suitably conducted, or whether it has been too ambitious.

Very few studies of children and adolescents with OCD describe the actual effect of various treatment methods. Table 9.1

illustrates studies which have described the use and the effect of behavioural therapy, relating to children and adolescents suffering from OCD.

Table 9.1 Studies of behavioural therapy in children and adolescents with OCD

<i>Author</i>	<i>No. of patients</i>	<i>Treatment</i>	<i>Period</i>	<i>Comments</i>
Bolten <i>et al.</i> 1983	13	Behavioural and family therapy; medicine	4 years	7 symptom-free 3 mild symptoms 1 chronic OCD 2 sporadic OCD
Apter <i>et al.</i> 1994	8	Behavioural therapy	2 years	7 of 8 vastly improved (4 symptom-free)
Leonard <i>et al.</i> 1993	54	Medicine	27 years	43% OCD 11% no OCD 70% still on medication
Thomsen and Mikkelsen 1995	24	Behavioural therapy; 13 patients receiving medication	15 years	4 no OCD 8 subclinical 11 chronic/sporadic OCD

The majority of children and adolescents find their own 'do-it-yourself' behavioural therapy: at home, for example, they may postpone washing their hands when they feel compelled to do so. Others are able to 'switch off' to unconscious rituals, in the form of counting, pictures and films. Others terminate obsessive actions, despite the discomfort they experience (they may, for instance, stop in the middle of a washing ritual, or during an

obsessive action which involves taking a specific number of steps back and forth over the door step). Others may force themselves to continue reading a book, despite an obsessive symptom which compels them to read the same passages again and again.

Medical Treatment

Throughout the years, different medication has been used in the treatment of adults with OCD. Only in the last decade has medication been developed which has a significant effect on most OCD cases. Most studies are conducted on adult groups, although some research into child and adolescent groups have been carried out. Generally, we must conclude that even more care is required when dealing with the treatment of children than with adults. Even so, it would appear that a particular medical treatment has made a breakthrough in the treatment of OCD, a treatment which can be used in the case of children and adolescents.

In 1979 it was found that a certain type of anti-depressive medication was capable of eliminating, or at least considerably minimizing, obsessive thoughts in OCD patients. This type of anti-depressive medication influences serotonin, the signal matter of the brain. It has subsequently been found that a vast number of OCD patients have a serotonin count which is too low, indicating a possible flaw in the brain's transmission of impulses, thought-control and behaviour.

Following this, attempts have been made to increase the specific influence of the anti-depressive medication on the serotonin metabolism. Thus, new pharmaceuticals which almost exclusively influence this part of the brain's signal matter have been developed.

In the USA, a study has been made on the effect of these new drugs in the treatment of children and adolescents. The same effects as those in adult OCD patients were found that is that the

obsessive thoughts fade or disappear completely in approximately 75 per cent of patients. Leonard *et al.* (1989) studied 32 children with OCD, whose average age was eleven years. Some were treated with an effective anti-depressant and the others with a placebo. It was found that the condition of the children and adolescents in the first group improved following an eight-week treatment period, regardless of whether depressive symptoms were present at the same time as OCD. Some years later, the same research group published the results of a two- to seven-year-long follow-up study of 54 children who had all received Anafranil (a serotonin-specific anti-depressant) in childhood. It was established that the positive effect of a five-week treatment period led to a better outcome later.

A common finding in more recent studies of children and adolescents treated with advanced anti-depressants (e.g. fluoxetine, fluvoxamine, citalopram, sertraline and paroxetine) is a good to moderate effect in 66 to 75 per cent of patients (Riddle *et al.* 1990a; Apter *et al.* 1994). As yet, the only Danish record of OCD children treated with a serotonin-specific anti-depressant illustrated that amongst 14 children and adolescents, slightly less than 50 per cent experienced good effect, and a further 25 per cent experienced moderate effect (Thomsen 1995c).

Side Effects of Treatment

Prior to prescribing medication, one must always weigh up the expected and the possible improvements in the child's condition. The more recent anti-depressive preparations described in this chapter have amazingly few side effects. One enormous advantage of the medication is the extremely minimal risk of poisoning, even if consumed in larger quantities. This is a reassuring fact, particularly in the treatment of adolescents who may have suicidal thoughts. In a few cases, treatment has been discontinued due to side effects in the form of increased anxiety and agitation. Some of these side effects are described in the

Danish and American studies. Their frequency is listed in Table 9.2 below.

Table 9.2 A survey of the most frequent side effects
of medical treatment

Insomnia	020 per cent
Hyperactivity	1025 per cent
Increased anxiety	410 per cent
Agitation	515 per cent
Confusion	520 per cent
Dizziness	525 per cent
A slight shaking of the hands	1025 per cent
Nausea	515 per cent
Dry mouth	1540 per cent

How Quickly Can the Effect of Medication Be Seen?

Some children and adolescents are able to report a relief in their condition after only four or five days. The medication is no miracle medicine which will, in one fell swoop, diminish the obsessive symptoms completely. The children are, however, able to describe how the obsessive thoughts become less invasive and how the need to perform rituals or other obsessive actions is diminished. Frequently, this positive effect is then strengthened further over a period of a few weeks.

In others, normally those on whom the medication has a less pronounced effect, some effect will be noticed after many weeks of medication. In fact, patients have been advised to continue treatment for at least ten to twelve weeks before evaluating whether the medication has any positive effect and before they contemplate discontinuation of the medication.

Finally, there is a group of children and adolescents who do not respond positively to the preparations currently available on the market. This group constitutes between 25 and 33 per cent of all children and adolescents with OCD. In some cases, the effect of the medication is uncertain, and if present at all, is extremely moderate. In some patients, no effect is visible at all. It appears that changing from one serotonin-specific preparation to another will, in some cases, help these children. No proof of any other types of medication having a positive effect has been found.

How Long Must Medication Continue?

If a positive effect of medication is found, it is advisable to continue initially for one year. Subsequently, it will in most cases be reasonable to discontinue medication. Later, it may be necessary to start again, although the combination of medication and behavioural therapy (or perhaps an alternative psychotherapeutical treatment) usually will have stabilized the adolescent to such a degree that he or she will be able to cope without medication.

As described in Chapter 7, the long-term course of OCD in children and adolescents will in many cases be characterized by a variance in the obsessive symptoms in other words, there will be some periods where the patient is symptom-free, or almost symptom-free, interspersed with periods (often during times of stress) where the obsession presents itself again. The necessity of life-long medical treatment for some severely afflicted OCD patients is still under discussion. The chronic or uneven course of OCD, and the effect of medication in most cases, supports the idea of life-long treatment, with occasional medicinal interludes, in some OCD patients.

A number of children and adolescents with OCD will continue to require medication and other treatments sporadically, perhaps during the vulnerable period of puberty.

Having discontinued medication, these adolescents will be able to cope without treatment, presenting either no obsessive symptoms at all, or only mild symptoms which they are able to control without the help of medication.

Alternative Types of Medicine Have No Apparent Effect

Other forms of medicine have been tried in the treatment of OCD. It appears that anxiety-reducing drugs such as benzo-diazepines have no positive effect on OCD. Likewise, in pure cases of OCD, antipsychotic medications alone the type of medication normally used in psychotic mental illness have no effect.

Group Therapy

Forming a group of OCD patients is often a good idea, especially for children and adolescents. In a group, led by one or two psychiatrists, patients can exchange their OCD experiences, provide each other with ideas of how to fight the obsessive symptoms, and support each other in various ways. Sharing an experience with others who have the same difficulties, and being away from parents and relatives, may make it easier for younger patients to discuss the obsessive symptoms.

Likewise, the parents may benefit from meeting other parents of OCD children in a group, where they can exchange experiences. Such gatherings can be used to discuss information relating to OCD, its clinical expression, course and treatment.

Psychoanalytic Therapy

Psychoanalytic therapy, as it has been developed by Freud and later by others, has also been used with children and adolescents with OCD. The principle of this therapy is to obtain a consciousness of the suppressed, unknown traumas and

complexes believed to be causing the neurotic condition, through conversation or, perhaps, playing.

According to psychoanalytic theory, the foundation for obsessive features and obsessive symptoms is established during the independent phase the developmental stage during which, for example, rigid potty-training is believed to inhibit the healthy development of the child. Such explanations of causes are impossible to prove. Whether children with OCD have had a particularly difficult period of independence, or whether their parents dealt with the potty-training in a rigid manner, has been researched. These studies suggest that there is no reason to assume that this phase of development in children with OCD differ from that of children with other mental illnesses, or that of healthy children.

Play therapy frequently builds on the principles of psychoanalytically-orientated therapy. With regard to small children, play therapy or observation may be the way to create contact. Observation of play will provide a great deal of information as to the extent and the form of the child's obsessive symptoms, which is invaluable during the treatment period. Furthermore, it is possible to obtain an idea of the child's way of coping with the world, how he or she deals with conflict, and to gain some insight into the child's imagination. Play therapy as the only form of treatment for smaller OCD children is described as being effective in many cases (Adams 1973; Willmuth 1988). No studies exist where the effect of play therapy has been compared with other forms of treatment.

Brain Surgery

Brain surgery, in the form of the capsulotomy, has been used (and is still used in certain places e.g. Sweden) in the treatment of severely afflicted adult patients with completely disabling obsessive symptoms. In these treatment, a positive effect has been described in approximately 66 per cent of the patients

(Mindus and Nyman 1991). However, brain surgery has some chronic and extremely severe side effects, including personality change and a risk of epilepsy. Brain surgery is now performed only on patients with totally crippling OCD when all other treatment methods have failed and when the OCD condition is considered worse than the side effects which may follow. Brain surgery has never been used on OCD children or adolescents.

The Treatment of Children and Adolescents with OCD and Other Mental Illnesses

As previously described in Chapter 8, a number of children and adolescents with OCD also suffer from other mental illnesses for example, Tourette's syndrome, depression and so forth. In these cases, those symptoms must also be taken into consideration when planning treatment.

Chapter 10

What Are the Causes of OCD?

The riddle of OCD has not yet been solved. As related in Chapter 9, OCD is considered a neurotic illness in psychoanalytically-inspired theory, a suffering caused by a traumatic development during certain periods of personality development. Freud believed that the obsessive neurosis appeared as a result of a sadistic anal-erotic organization of the personality, where the patient stagnates at a certain stage of development.

However, it has been clear for some time that in specific areas OCD differs from what is normally referred to as 'a neurotic condition' (the anxiety neurosis and the hysterical neurosis). In some ways the clinical picture is different, and OCD is generally unaffected by normal psychoanalytic treatment.

Biological Causes

In recent years, there has been much interest in the possibility of discovering biological causes for OCD. This has led to the development of the serotonin theory, which has been described in Chapter 9 on treatment. This theory postulates a lack of a specific chemical substance in the brain serotonin. Serotonin ensures that nerve impulses are transmitted. The theory has been strengthened by the fact that drugs which increase the volume of serotonin in the nerve pathways have helped many patients with OCD.

Judith Rapoport (1989) has proposed a model to assist the understanding of OCD in both children and adults. According

to this model, there have been disruptions in the restriction and the transmission of certain nerve impulses in a deep-rooted part of the brain basal ganglia of OCD patients. Consequently, instinctive behavioural patterns, rituals and so forth are 'set free' and are not subjected to the restrictions that occur in the brains of other people. Therefore, obsessive actions run along their own path, and obsessive thoughts in their own groove, without the patient being able to suppress them.

The model is supported by the fact that several neurological illnesses, in which it is known that certain parts of the brain are affected, appear alongside OCD, particularly in children. The model does not, however, explain why the obsessive symptoms suddenly appear in a child after several years of normal functioning. Nor does it explain why a patient may be almost, or even completely, free of obsessive symptoms for long periods of time following the onset of OCD, whereas at other times the patient may be extremely troubled by them. Finally, the model gives no explanation as to why different obsessive symptoms are seen in different children, and why all obsessive symptoms are not seen in all OCD children. For a more detailed description of this model, literature on the subject (Rapoport 1989) is currently available.

Aided by new techniques which make it possible to take photographs of the brain's structure, as well as to measure its function, a search for larger or smaller brain dysfunctions can be made. This is one factor which has been sought in the hunt for an explanation of the cause of OCD. As yet, no proof of a difference in the brain structure of OCD children and adolescents, compared with healthy children, has been forthcoming. Nor has it been possible to expose differences in the way in which the brain actually functions during these studies.

Even though OCD is probably a mainly biological illness ruled by the brain, many environmental factors also play a major role. Stressful factors in the environment may serve as factors which release or strengthen the illness. Family-related factors of

a different kind may also contribute. Thus OCD, like many mental illnesses of children and adolescents, is multi-factorial: there is a combination of several factors relating to the cause.

Familial Structure

In earlier descriptions of OCD children and adolescents, the families have frequently been characterized as rigid, with difficulties in coping, habit-bound, and attaching great emphasis to cleanliness, perfection and etiquette (Adams 1973). Yet there are no extensive, systematic studies available to confirm these myths. We found that the families of our group of 24 patients with OCD did not differ significantly from the families of other children and adolescents suffering from mental illness (Thomsen 1994a). They were, generally speaking, just as dynamic and flexible as other families. A few families did show signs of diverging family patterns, but the number of those afflicted was not different to those in other groups.

One interesting discovery (found in several studies) is that OCD children and adolescents have a tendency to come from families of a higher social class than that of the general population. Whether this is due to the fact that these parents refer their children more frequently, or whether there are some socially adjusted elements in OCD, is not yet clear.

Is OCD Hereditary?

Even Freud found it plausible that hereditary factors played a part in the development of OCD. Until the last few decades this presumption has, however, been based on qualitative descriptions of a very limited number of families.

Recently, more systematic studies of OCD children and adolescents and their immediate family have been undertaken. In all of these studies, it was established that a number of parents had, or had previously experienced the same problems. Lenane *et al.* (1990) interviewed 145 parents and relatives of 46 children

and adolescents with severe OCD. The researchers divided the parents into several different groups:

- ° Parents with no sign of OCD
- ° Parents with OCD or sub-clinical OCD (i.e. mild obsessive symptoms)
- ° Parents with an obsessive compulsive personality.

Twenty-five per cent of fathers and 9 per cent of the mothers had OCD. A further 13 per cent of the parents had sub-clinical OCD, and 20 per cent of the fathers and 2 per cent of the mothers had an obsessive compulsive personality. Apart from these directly related OCD findings, there was also an increased likelihood of the parents suffering, or having suffered, from depression.

Riddle *et al.* (1990b), another American research group, studied the parents of 21 children and adolescents with OCD. They found that 36 per cent of the parents had either OCD or sub-clinical OCD.

Pauls *et al.* (1993) studied the relatives of a larger group of OCD patients in the USA, and compared them with the relatives of normal controls. It was found that OCD frequency in OCD relatives had increased from approximately 2 per cent to 10 per cent, compared with the control group. The frequency of Tourette's syndrome had also increased significantly.

A Danish study which describes the appearance of OCD and sub-clinical OCD in parents of children and adolescents with obsessive symptoms, has also been undertaken (Thomsen 1995a). During the study, it was established that amongst the parents of 21 children and adolescents referred with OCD, one father still had OCD as an adult. Two other fathers had childhood OCD, although they had not suffered from it since their late teens, whereas five fathers in all had sub-clinical OCD (mild obsessive symptoms). Three mothers had sub-clinical OCD, which was disabling in their everyday lives, but none of the mothers had ever suffered from regular OCD. Finally, we

found that two grandparents of our patients had formerly suffered from OCD.

It is not necessarily true to say that a child with OCD will always imitate the obsessive symptoms of a parent with OCD. The child's obsessive symptoms are frequently completely different from those of the parents. In the Danish study, we found that the father currently suffering from OCD displayed obsessive symptoms in the form of checking behaviour, and obsessive thoughts about the past in the form of an endless chain of thought concerning daily events over which he would speculate how he could have done things differently in various situations how things could have been. If his son's OCD were a form of social imitation like father, like son a similar type of obsessive behaviour would be expected of the son. Instead, the son exercised cleanliness rituals in the form of obsessive washing and avoiding situations where he might get dirty, or be infected. He also experienced obsessive thoughts revolving around sickness and death. In more extensive studies, where a greater number of children and adolescents have participated, similar results have been found i.e. that the children's obsessive symptoms do not mirror their parents' sufferings (Riddle *et al.* 1990b; Lenane *et al.* 1990). It is the general disposition to OCD, rather than the specific forms of the obsessive symptoms, which appears to be hereditary.

Another direct way of shedding light upon the possibility of hereditary OCD is presented in studies of twins. There is as yet no study of twins in which the focus has been on the inheritability of OCD. Until now, OCD has been included in studies of a wider group of neurotic sufferings, and has not been the subject of independent analysis (Torgerson 1983). In these studies the hypothesis of a hereditary factor has been strengthened, but no answers have been found as to the significance of inheritability in the complete picture of OCD causes.

Are OCD Children Particularly Anxious When They Are Small?

A special interest has been taken in studying whether children who subsequently develop OCD have been especially anxious and sensitive in early life. In two studies, a Danish and an American study (Thomsen 1995a; Klein 1993), parents of OCD children were asked whether their children had shown any symptoms relating to a fear of separation; in other words, whether the child had behaved in a very insecure way and possibly even panicked at the idea of being separated from the parents. The parents were also asked whether the child had found it particularly difficult initially adapting to kindergarten or school, and whether the child had been vulnerable in the company of other children, preferring to spend his time in the security of his own home. Many children have probably experienced one or more of these features, and the majority grow up to be completely healthy adults. In the studies, there was no indication that children who experienced many of these features had a particularly vulnerable psyche, or were at greater risk of developing OCD in later life.

Chapter 11

How Can One Determine Whether a Child Has OCD?

In diagnosing OCD in children and adolescents, it may be beneficial to have some reliable tests upon which to base a description of the symptoms and their severity. A number of different instruments of this kind have been developed. They are designed to serve as an aid to the psychiatrist or psychologist when the extent of the illness is registered. Most cannot be used by the child or adolescent himself. The child or adolescent with OCD has no doubt as to whether he or she suffers obsessive symptoms or not, although the use of a questionnaire or an interview may be one way to make it apparent to the outside world and, thereby, to obtain help. The reader of this book could, in fact, try to answer the questions personally, as they appear from the questionnaire in this chapter, and determine how many questions receive a positive reply.

Scoring schemes for OCD are primarily designed for adults, although two have been adapted to suit children and adolescents. One scheme is self-scoring, using a series of questions which the patient answers in private. The other is formulated as an interview between the psychiatrist or psychologist and the child, during which the various obsessive symptoms and their effect on the child are registered.

The self-scoring scheme may have the advantage that the child finds it easier to respond to the questions and, perhaps, does not try to keep the majority of symptoms hidden. However,

it is impossible to check whether the child has understood or formed an opinion on all of the questions. An interview offers greater certainty of the latter, and a far more detailed description during conversation with the child.

Leyton Questionnaire

The Leyton Questionnaire for obsessive symptoms was created by an English psychiatrist in 1970 (Cooper 1970).

Originally, the scheme was created with the aim of measuring obsessive symptoms in house-bound English housewives and consisted of 69 questions. The questionnaire was adapted in 1986 by a group of American psychiatrists, rendering it suitable for children and adolescents. The number of questions were reduced to only 20, and the wording was revised to suit the new target group (Berg 1986).

The questionnaire, the questions from which can be seen in Table 4.1 (pp.3537), describes various obsessive symptoms and obsessive features. Every question must be answered 'yes' or 'no', to indicate whether the symptom is present and if so, a rating of between 0 and 3 must be given as to whether each symptom is:

- (0) No trouble at all/does not affect everyday life at all
- (1) Slightly annoying, but definitely bearable, and not particularly disruptive to everyday life
- (2) Somewhat annoying and disturbing during everyday life
- (3) Extremely annoying and disturbing.

Furthermore, for every question to which the answer is 'yes', one must, by rating from 0 to 3, state whether:

- (0) No resistance is made to the symptom (trying to fight or suppress it)
- (1) A little resistance is made to the symptom

(2) A certain amount of resistance is made to the symptom

(3) Considerable resistance is made to the symptom, when it appears.

A final score can then be calculated, and although it does not give an unequivocal answer about whether OCD is present or not, it may indicate the existence of obsessive symptoms, and how strong they are. The reason for not just answering 'yes' or 'no' to questions about possible symptoms, but also registering the amount of strain and the child's resistance to the symptoms, is that severity must be measured: how disruptive and disturbing the symptoms actually are. If the symptoms are not a strain and are not intrusive, they are not an indication of OCD.

The Leyton Questionnaire has been used on 1050 Danish school children, and in a major American study. In the American study, a total of 15 for 'yes' answers, and 20 for strain, were chosen as cut-off figures for possible OCD (Flament *et al.* 1988).

Yale-Brown Obsessive Compulsive Scale

The Yale-Brown Obsessive Compulsive Scale is a form which must be completed by the psychiatrist after interviewing the patient. It is based on the patient's information, as well as the opinion of the psychiatrist. The interview was put together in the mid-1980s by American psychiatrists and psychologists, and it comes in editions for both children and adults (Goodman *et al.* 1991). The form is particularly good in measuring the severity of the child's OCD.

In addition to describing a wide variety of obsessive thoughts and actions, the interview can also be used to register very carefully a number of other important factors in order to make a complete assessment of the child or adolescent's condition, including an evaluation of the time spent by the child on obsessive thoughts and actions.

The degree of disruption which the obsessive symptoms cause to the child how much the obsessive symptoms interfere with the child's or adolescent's daily chores is also described. Is the child able to play relatively untroubled, or must he stop his activities repeatedly, in order to execute of the obsessive actions? Is the adolescent able to read a book relatively unhindered, or must she stop again and again, because she is forced to do so by the obsessive thoughts? Generally, it can be said that the more disruptive the obsessive symptoms, the more severe the case of OCD.

The strain of the obsessive symptoms felt by the children or adolescents themselves is also scored. To what degree is the child bothered by the obsessive symptoms, and how much does he or she want to be free of them? The more extensive the strain, the more severe the OCD.

The child or adolescent's resistance to the obsessive symptoms is included in the scoring form. How much resistance does the patient put up to the obsession, suppressing the thought and the desire to perform certain obsessive actions, or attempting to push the obsessive thoughts aside and avoid being controlled by them? As it appeared from the definition of OCD in the first chapters of this book, a certain resistance will always be found in OCD children and adolescents. This resistance is a healthy sign: the less resistance a child exercises, the more likely it is that the child has given in to the obsessive symptoms. The resistance is, therefore, an indicator of the child's distance from the obsessive symptoms and his or her attempt to fight them. Resistance cannot be used to measure the amount of control the child has over the symptoms. It does show, however, the degree of the child's inner sense of dissociating him or herself from obsessive thoughts. In severely afflicted cases (particularly in adults who have suffered from OCD for long periods) it is quite common for patients to mobilize only a feeble amount of resistance to the obsessive symptoms.

Table 11.1 NIMH teacher rating of OCH

<i>Behavioural observations</i>	<i>Not at all</i>	<i>Just a little</i>	<i>Pretty much</i>	<i>Very much</i>
1. Checks things several times	☐	☐	☐	☐
2. Spends extra time checking work to make sure it is just right	☐	☐	☐	☐
3. Does things over and over a certain number of times before they seem quite right	☐	☐	☐	☐
4. Has trouble finishing school work because he has to do something over and over again	☐	☐	☐	☐
5. Has trouble making up his mind	☐	☐	☐	☐
6. Goes over and over letters and numbers with writing instrument	☐	☐	☐	☐
7. Overly neat and clean	☐	☐	☐	☐
8. Meticulous: pays close attention to detail	☐	☐	☐	☐

It is also important to register the child's control over the obsessive symptoms, and this is included in the Yale-Brown Obsessive Compulsive Scale. The control often relates to whether the child is successful in suppressing or postponing the obsessive actions until a more 'fitting' time occurs and whether the child can suppress obsessive thoughts which appear in the form of pictures, words, or a sense of fear, and then avoid being controlled by them. The more control the child has, the better and the milder the OCD. The answers to these various aspects of OCD are finalized in a complete score, where 40 is the maximum score. The typical OCD patient falls between 16 (mild cases) and 35 (extremely severe).

The child or adolescent's teacher will normally be with the child for many hours during the day, occasionally in situations of stress. It will, therefore, be likely that a teacher will be one of the

first to notice the obsessive symptoms or features in a child, even though the child attempts to keep them well hidden. In Table 11.1, examples of questions which the teacher must ask him or herself (with regard to the child's behaviour) are given. These questions throw light upon the obsessive symptoms which may appear during schooling. They do not throw light upon, for example, obsessive washing, or on rituals of other kinds.

Chapter 12

Epilogue

During a conversation with one of my adolescent patients, he raised the question: 'I can't control my thoughts by myself how can other people?' He felt that his thoughts 'ran their own course' and 'that the thoughts produced other thoughts quite independently', and 'completely outside his own will'. With this statement he provided an incisive description of the very core of OCD; thoughts which run riot and thoughts which become obsessive.

OCD is an illness which appears with a varying degree of severity. The spectrum of obsessive symptoms ranges from what may be perceived as 'normal' phenomena, which are common to all of us, to severely disabling, chronic suffering. The disease is more common than originally believed. As yet, there is a vast lack of understanding of the disease itself, its background, its course and its social consequences. It is my hope that this book may serve as a contribution to increased focus on OCD, creating a more extensive understanding of the condition itself, and thereby serving as an aid to the many people suffering from OCD (as well as the parents and families of OCD children). Furthermore, increased focus on the mechanisms surrounding OCD will not only be relevant in relation to children, adolescents and adults suffering from severe obsessive symptoms, but will also serve to increase the general understanding of behavioural and psychological features in normal development.

Appendix I

Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS)¹

General Instructions

Overview

This scale is designed to rate the severity of obsessive and compulsive symptoms in children and adolescents, ages 6 to 17 years. It can be administered by a clinician or trained interviewer in a semi-structured fashion. In general, the ratings depend on the child's and parent's report; however, the final rating is based on the clinical judgement of the interviewer. Rate the characteristics of each item over the prior week up until, and including, the time of the interview. Scores should reflect the average of each item for the entire week, unless otherwise specified.

Informants

Information should be obtained by interviewing the parent(s) (or guardian) and the child together. Sometimes, however, it may also be useful to interview the child or parent alone. Interviewing strategy may vary depending on the age and

¹ Developed by Wayne K. Goodman, M.D. and Lawrence H. Price, M.D., Department of Psychiatry, Yale University School of Medicine; Steven A. Rasmussen, M.D., Department of Psychiatry, Brown University of Medicine Mark A. Riddle, M.D., The Child Study Center, Yale University School of Medicine; and Judith L. Rapoport, M.D., Child Psychiatry Branch, National Institute of Mental Health.

developmental level of the child or adolescent. All information should be combined to estimate the score for each item. Whenever the CY-BOCS is administered more than once to the same child, as in a medication trial, consistent reporting can be ensured by having the same informant(s) present at each rating session.

Definitions

Before proceeding with the questions, define 'obsessions' and 'compulsions' for the child and primary caretaker as follows (sometimes, particularly with younger children, the interviewer may prefer using the terms 'worries' and 'habits'):

'Obsessions are thoughts, ideas, or pictures that keep coming into your mind even though you do not want them to. They may be unpleasant, silly or embarrassing.'

'An example of an obsession is the repeated thought that germs or dirt are harming you or other people, or that something unpleasant might happen to you or someone in your family or someone special to you. These are thoughts that keep coming back, over and over again.'

'Compulsions are things you feel you have to do although you may know that they do not make sense. Sometimes you may try to stop from doing them but this might not be possible. You might feel worried or angry or frustrated until you have finished what you have to do.'

'An example of a compulsion is the need to wash your hands over and over again even though they are not really dirty, or the need to count up to a certain number while you do certain things.'

'Do you have any questions about what these words called obsessions and compulsions mean?'

Symptom Specificity and Continuity

In some cases, it may be difficult to delineate obsessions and compulsions from other closely related symptoms such as

phobias, anxious worries, depressive ruminations or complex tics. Separate assessment of these symptoms may be necessary, Although potentially difficult, the delineation of obsessions and compulsions from these closely related symptoms is an essential task of the interviewer. (A full discussion of how to make this determination is beyond the scope and purpose of this introduction.) Items marked with an asterisk are items where this delineation may be especially troublesome.

Once the interviewer has decided whether or not a particular symptom will be included as an obsession or compulsion on the checklist, every effort should be made to maintain consistency in subsequent rating(s). In a study with multiple ratings over time, it may be useful to review the initial target symptom list (see below) at the beginning of subsequent ratings (prior severity scores should not be reviewed).

Procedure

Symptom checklist: After reviewing with the child and parent(s) the definitions of obsessions and compulsions, the interview should proceed with a detailed inquiry about the child's symptoms using the compulsions checklist and obsessions checklist as guides. It may not be necessary to ask about each and every item on the checklist, but each symptom area should be covered to ensure that symptoms are not missed. For most children and adolescents, it is usually easier to begin with compulsions (see page 119).

Target symptom list: After the compulsions checklist is complete, list the four most severe compulsions on the target symptom list on page 122. Repeat this process, listing the most severe obsessions on the target symptom list on page 115.

Severity rating: After completing the checklist and target symptom list for compulsions, inquire about the severity items, time spent, distress, resistance, interference, and degree of control (questions 6 through 10 on pages 122 through 126).

There are examples of probe questions for each item. Ratings for these items should reflect the interviewer's best estimate from all available information from the past week, with special emphasis on the target symptoms. Repeat the above procedure for obsessions (pages 113 through 119). Finally, inquire about and rate questions 11 through 19 on pages 126 through 131. Scores can be recorded on the scoring sheet on page 132. All ratings should be in whole integers.

Scoring

All 19 items are rated, but only items 110 are used to determine the total score. The total CY-BOCS score is the sum of items 110; the obsession and compulsion subtotals are the sums of items 15 and 610 respectively. At this time, items 1A and 6A are not being used in the scoring.

Items 17 (global severity) and 18 (global improvement) are adapted from the *Clinical Global Impression Scale* (Guy 1976) to provide measures of overall functional impairment associated with the presence of obsessive-compulsive symptoms.

CY-BOCS Obsessions Checklist

Name:

Date:

Check all symptoms that apply (items marked * may or may not be OCD phenomena)

<i>Contamination obsessions</i>	<i>Current</i>	<i>Past</i>
Concern with dirt, germs, certain illnesses (e.g., AIDS)	☐	☐
Concerns or disgust with bodily waste or secretions (e.g., urine, faeces, saliva)	☐	☐
Excessive concern with environmental contaminants (e.g., asbestos, radiation, toxic waste)	☐	☐

(table continued on next page)

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<i>Contamination obsessions</i>	<i>Current</i>	<i>Past</i>
Excessive concern with household items (e.g., cleaners, solvents)	☐	☐
Excessive concern about animals/insects	☐	☐
Excessively bothered by sticky substances or residues	☐	☐
Concerned will get ill because of contaminant	☐	☐
Concerned will get others ill by spreading contaminant (aggressive)	☐	☐
No concern with consequences of contamination other than how it might feel*	☐	☐
Other (describe)		
<i>Aggressive obsessions</i>	<i>Current</i>	<i>Past</i>
Fear might harm self	☐	☐
Fear might harm others	☐	☐
Fear harm will come to self	☐	☐
Fear harm will come to others (maybe because of something child did or did not do)	☐	☐
Violent or horrific images	☐	☐
Fear of blurting out obscenities or insults	☐	☐
Fear of doing something else embarrassing*	☐	☐
Fear will act on unwanted impulses (e.g., to stab a family member)	☐	☐
Fear will steal things	☐	☐
Fear will be responsible for something else terrible happening (e.g., fire, burglary, flood)	☐	☐
Other (describe)		

(table continued on next page)

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<i>Sexual obsessions</i>	<i>Current</i>	<i>Past</i>
<i>Are you having any sexual thoughts? If yes, are they routine or are they repetitive thoughts that you would rather not have or find disturbing? If yes, are they:</i>		
Forbidden or perverse sexual thoughts, images, impulses	☐	☐
Content involves homosexuality*	☐	☐
Sexual behavior towards others (aggressive)	☐	☐
Other (describe)		

<i>Hoarding/saving obsessions</i>	<i>Current</i>	<i>Past</i>
Fear of losing things	☐	☐
Other (describe)		

<i>Magical thoughts/superstitious obsessions</i>	<i>Current</i>	<i>Past</i>
Lucky/unlucky numbers, colors, words	☐	☐
Other (describe)	☐	☐
Somatic obsessions	☐	☐
Excessive concerns with illness or disease*	☐	☐
Excessive concern with body part or aspect of appearance (e.g., dysmorphophobia)*	☐	☐
Other (describe)		

<i>Religious obsessions (scrupulosity)</i>	<i>Current</i>	<i>Past</i>
Excessive concern with fear of offending religious objects (God)	☐	☐
Excessive concern with right/wrong, morality	☐	☐
Other (describe)		

(table continued on next page)

(table continued from previous page)

<i>Miscellaneous obsessions</i>	<i>Current</i>	<i>Past</i>
The need to know or remember	☐	☐
Fear of saying certain things	☐	☐
Fear of not saying just the right thing	☐	☐
Intrusive (non-violent) images	☐	☐
Intrusive sounds, words, music, or numbers	☐	☐
Other (describe)		

Target Symptom List of Obsessions

Describe, listing by order of severity, with 1 being the most severe, 2 the second most severe, etc:

- 1.
- 2.
- 3.
- 4.

Questions on Obsessions (Items 15)

'I am now going to ask you questions about the thoughts you cannot stop thinking about.' (Review for the informant(s) the target symptoms and refer to them while asking questions 15).

1. Time Occupied by Obsessive Thoughts

How much time do you spend thinking about these things? (When obsessions occur as brief, intermittent intrusions, it may be impossible to assess time occupied by them in terms of total hours. In such cases, estimate time by determining how frequently they occur. Consider both the number of times the intrusions occur and how many hours of the day are affected.)

How frequently do these thoughts occur? (Be sure to exclude ruminations and preoccupations which, unlike obsessions, are ego-syntonic and rational (but exaggerated).)

0 None

1 Mild: less than 1 hr/day or occasional intrusion

2 Moderate: 1 to 3 hrs/day or frequent intrusion

3 Severe: greater than 3 and up to 8 hrs/day or very frequent intrusion

4 Extreme: greater than 8 hrs/day or near constant intrusion

1B. Obsession-Free Interval (Not Included in Total Score)

On average, what is the longest amount of time each day that you are not bothered by the obsessive thoughts?

0 None

1 Mild: long symptom free intervals, more than 8 consecutive hrs/day symptom-free

2 Moderate: moderately long symptom-free intervals, more than 3 and up to 8 consecutive hrs/day symptom-free

3 Severe: brief symptom-free intervals, from 13 consecutive hrs/day symptom-free

4 Extreme: less than 1 consecutive hr/day symptom-free

2. *Interference Due to Obsessive Thoughts*

How much do these thoughts get in the way of school or doing things with friends?

Is there anything that you don't do because of them? (If currently not in school, determine how much performance would be affected if patient were in school.)

0 None

1 Mild: slight interference with social or school activities, but overall performance not impaired

2 Moderate: definite interference with social or school performance, but still manageable

3 Severe: causes substantial impairment in social or school performance

4 Extreme: incapacitating

3. *Distress Associated with Obsessive Thoughts*

How much do these thoughts bother or upset you? (Only rate anxiety/frustration that seems triggered by obsessions, not generalized anxiety or anxiety associated with other symptoms.)

0 None

1 Mild: infrequent, and not disturbing

2 Moderate: frequent, and disturbing, but still manageable

3 Severe: very frequent, and very disturbing

4 Extreme: near constant, and disabling distress/frustration

4. *Resistance Against Obsessions*

How hard do you try to stop the thoughts or ignore them? (Only rate effort made to resist, not success or failure in actually controlling the obsessions. How much the patient resists the obsessions may or may not correlate with their ability to control them. Note that this item does not directly measure the severity of the intrusive thoughts; rather it rates a manifestation of health, i.e., the effort the patient makes to counteract the obsessions. Thus, the more the patient tries to resist, the less impaired is this aspect of his functioning. If the obsessions are minimal, the patient may not feel the need to resist them. In such cases, a rating of '0' should be given.)

- 0 None: makes an effort to always resist, or symptoms so minimal doesn't need to actively resist
- 1 Mild: tries to resist most of the time
- 2 Moderate: makes some effort to resist
- 3 Severe: yields to all obsessions without attempting to control them, does so with some reluctance
- 4 Extreme: completely and willingly yields to all obsessions

5. *Degree of Control Over Obsessive Thoughts*

When you try to fight the thoughts, can you beat them?

How much control do you have over the thoughts? (In contrast to the preceding item on resistance, the ability of the patient to control his obsessions is more closely related to the severity of the intrusive thoughts.)

- 0 Complete control
- 1 Much control: usually able to stop or divert obsessions with some effort and concentration

2 Moderate control: sometimes able to stop or divert obsessions

3 Little control: rarely successful in stopping obsessions, can only divert attention with difficulty

4 NO CONTROL experienced as completely involuntary, rarely able to even momentarily divert thinking

CY-BOCS Compulsions Checklist

Check all symptoms that apply (items marked* may or may not be OCD phenomena).

Name:

Date:

<i>Washing/cleaning compulsions</i>	<i>Current</i>	<i>Past</i>
Excessive or ritualized handwashing	☐	☐
Excessive or ritualized showering, bathing, toothbrushing, grooming, toilet routine	☐	☐
Excessive cleaning of items; such as personal clothes or important objects	☐	☐
Other measures to prevent or remove contact with contaminants	☐	☐
Other (describe)		

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<i>Checking compulsions</i>	<i>Current</i>	<i>Past</i>
Checking locks, toys, school books/items, etc.	☐	☐
Checking associated with getting washed, dressed, or undressed	☐	☐
Checking that did not/will not harm others	☐	☐
Checking that did not/will not harm self	☐	☐
Checking that nothing terrible did/will happen	☐	☐
Checking that did not make mistake	☐	☐
Checking tied to somatic obsessions	☐	☐
Other (describe)		

<i>Repeating rituals</i>	<i>Current</i>	<i>Past</i>
Rereading, erasing, or rewriting	☐	☐
Need to repeat routine activities (e.g. in/out of doorway, up/down from chair)	☐	☐
Other (describe)		

<i>Counting compulsions</i>	<i>Current</i>	<i>Past</i>
Objects, certain numbers, words, etc.	☐	☐
Describe:		

<i>Ordering/arranging</i>	<i>Current</i>	<i>Past</i>
Need for symmetry/evening up (e.g. lining items up a certain way or arranging personal items in specific patterns)	☐	☐
Other (describe)		

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(table continued from previous page)

<i>Hoarding/saving compulsion</i>	<i>Current</i>	<i>Past</i>
Distinguish from hobbies and concern with objects of monetary or sentimental value		
Difficulty throwing things away, saving bits of paper, string, etc	☐	☐
Other (describe)		
<i>Excessive games/superstitious behaviors</i>	<i>Current</i>	<i>Past</i>
Distinguish from age appropriate magical games e.g., array of behavior, such as stepping over certain spots on a floor, touching an object/self certain number of times as a routine game to avoid something bad happening	☐	☐
Other (describe)		
<i>Rituals involving other persons</i>	<i>Current</i>	<i>Past</i>
The need to involve another person (usually a parent) in ritual (e.g., asking a parent to repeatedly answer the same question, making mother perform certain meal time-rituals involving specific utensils)*	☐	☐
Other (describe)		

(table continued on next page)

(table continued from previous page)

<i>Miscellaneous compulsions</i>	<i>Current</i>	<i>Past</i>
Mental rituals (other than checking/counting)	☐	☐
Need to tell, ask, or confess	☐	☐
Measures (not checking) to prevent:		
harm to self	☐	☐
harm to others	☐	☐
terrible consequences	☐	☐
Ritualized eating behaviors*	☐	☐
Excessive list making*	☐	☐
Need to touch, tap, rub*	☐	☐
Need to do things (e.g., touch or arrange) until it feels just right*	☐	☐
Rituals involving blinking or staring*	☐	☐
Trichotillomania (hair pulling)*	☐	☐
Other self-damaging or self-mutilating behaviours*	☐	☐
Other (describe)	☐	☐

Target symptom List for compulsions

Describe, listing by order of severity, with 1 being the most severe, 2 the second most severe, etc.):

- 1.
- 2.
- 3.
- 4.

Questions on Compulsions (Items 610)

'I am now going to ask you questions about the habits you can't stop.' (Review for informant(s) the target symptoms and refer to them while asking questions 610.)

6A. Time Spent Performing Compulsive Behaviors

How much time do you spend doing these things?

How much longer than most people does it take to complete your usual daily activities because of the habits? (When compulsions occur as brief, intermittent behaviours, it may be impossible to assess time spent performing them in terms of total hours. In such cases, estimate time by determining how frequently they are performed. Consider both the number of time compulsions are performed and how many hours of the day are affected).

How often do you do these habits? (In most cases compulsions are observable behaviors (e.g., handwashing), but there are instances in which compulsions are not observable (e.g., silent checking).)

0 None

1 Mild: spends less than 1 hr/day performing compulsions, or occasional performance of compulsive behaviors

2 Moderate: spends from 1 to 3 hrs/day performing compulsions, or frequent performance of compulsive behaviors

3 Severe: spends more than 3 and up to 8 hrs/day performing compulsions, or very frequent performance of compulsions

4 Extreme: spends more than 8 hrs/day performing compulsions, or near constant performance of compulsive behaviors (too numerous to count)

6B Compulsion-Free Interval

How long can you go without performing compulsive behavior? If necessary ask: 'What is the longest block of time in which (your habits) compulsions are absent?')

0 No symptoms

1 Mild: long symptom-free interval, more than 8 consecutive hrs/day symptom-free

2 Moderate: moderately long symptom-free interval, more than 3 and up to 8 consecutive hrs/day symptom-free

3 Severe: short symptom-free interval, from 1 to 3 consecutive hrs/day symptom-free

4 Extreme: less than 1 consecutive hr/day symptom-free

7. *Interference Due to Compulsive Behaviors*

How much do these habits get in the way of school or doing things with friends?

Is there anything you don't do because of them? (If currently not in school, determine how much performance would be affected if patient were in school.)

0 None

1 Mild: slight, interference with social or school activities, but overall performance not impaired

2 Moderate: definite interference with social or school performance, but still manageable

3 Severe: causes substantial impairment in social or school performance

4 Extreme: incapacitating

8. *Distress Associated with Compulsive Behavior*

How do you feel if prevented from carrying out your habits?

How upset would you become? (Rate degree of distress/frustration patient would experience if performance of the compulsion were suddenly interrupted without reassurance being offered. In most, but not all cases, performing compulsions reduces anxiety/frustration.)

How upset do you get while carrying out your habits until you feel satisfied?

0 None

1 Mild: only slightly anxiety/frustrated if compulsions prevented, or only slight anxiety/frustration during performance of compulsions

2 Moderate: reports that anxiety/frustration would mount but remain manageable if compulsions prevented. Anxiety/frustration increases but remains manageable during performance of compulsions

3 Severe: prominent and very disturbing increase in anxiety/frustration if compulsions interrupted. Prominent and very disturbing increase in anxiety/frustration during performance of compulsions

4 Extreme: incapacitating anxiety/frustration from any intervention aimed at modifying activity. Incapacitating anxiety/frustration develops during performance of compulsions

9. *Resistance Against Compulsions*

How much do you try to fight the habits? (Only rate effort made to resist, not success or failure in actually controlling the compulsions. How much the patient resists the compulsions may

or may not correlate with his ability to control them. Note that this item does not directly measure the severity of the compulsions; rather it rates a manifestation of health, i.e., the effort the patient makes to counteract the compulsions. Thus, the more the patient tries to resist, the less impaired is this aspect of his functioning. If the compulsions are minimal, the patient may not feel the need to resist them. In such cases, a rated of '0' should be given.)

0 None: makes an effort to always resist, or symptoms so minimal doesn't need to actively resist

1 Mild: tries to resist most of the time

2 Moderate: makes some effort to resist

3 Severe: yields to almost all compulsions without attempting to control them, but does so with some reluctance

4 Extreme: completely and willingly yields to all compulsions

10. Degree of Control Over Compulsive Behavior

How strong is the feeling that you have to carry out the habit(s)?

When you try to fight them, what happens?

(For the advanced child ask:) How much control do you have over the habits? (In contrast to the preceding item on resistance, the ability of the patient to control his compulsions is more closely related to the severity of the compulsions.)

0 Complete control

1 Much control: experiences pressure to perform the behavior, but usually able to exercise voluntary control over it

- 2 Moderate control: moderate control, strong pressure to perform behavior, can control it only with difficulty
- 3 Little control: little control, very strong drive to perform behavior, must be carried to completion, can only delay with difficulty
- 4 No control: no control, drive to perform behavior experienced as completely involuntary and overpowering, rarely able to delay activity (even momentarily)

11. Insight into Obsessions and Compulsions

Do you think your concern or behaviors are reasonable? (Pause)

What do you think would happen if you did not perform the compulsion(s)?

Are you convinced something would really happen? (Rate patient's insight into the senselessness or excessiveness of his obsession(s) and compulsion(s) based on beliefs expressed at the time of the interview.)

- 0 None: excellent insight, fully rational
- 1 Mild: good insight, readily acknowledges absurdity or excessiveness of thoughts or behaviors but does not seem completely convinced that there isn't something besides anxiety to be concerned about (i.e., has lingering doubts)
- 2 Moderate: fair insight, reluctantly admits thoughts or behavior seem unreasonable or excessive, but wavers. May have some unrealistic fears, but no fixed convictions
- 3 Severe: poor insight, maintains that thoughts or behaviors are not reasonable or excessive, but wavers.

May have some unrealistic fears, but acknowledges validity of contrary evidence (i.e., overvalued ideas present)

4 Extreme: lacks insight, delusional, definitely convinced that concerns and behavior are reasonable, unresponsive to contrary evidence

12. Avoidance

Have you been avoiding doing anything, going any place, or being with anyone because of your obsessional thoughts or out of concern you will perform compulsions?

(If yes, then ask:) How much do you avoid? (Note what is avoided on symptom list. Rate degree to which patient deliberately tries to avoid things. Sometimes compulsions are designed to 'avoid' contact with something that the patient fears. For example, excessive washing of fruit and vegetables to remove 'germs' would be designated as a compulsion not as an avoidant behavior. If the patient stopped eating fruit and vegetables, then this would constitute avoidance.)

0 None

1 Mild: minimal avoidance

2 Moderate: some avoidance; clearly present

3 Severe: much avoidance; avoidance prominent

4 Extreme: very extensive avoidance; patient does almost everything he/she can to avoid triggering symptoms

13. Degree of Indecisiveness

Do you have trouble making decisions about little things that other people might not think twice about (e.g., which clothes to put on in the morning; which brand of cereal to buy)? (Exclude difficulty making decisions which reflect ruminative thinking.

Ambivalence concerning rationally-based difficult choices should also be excluded.)

0 None

1 Mild: some trouble making decisions about minor things

2 Moderate: freely reports significant trouble making decisions that others would not think twice about

3 Severe: continual weighing of pros and cons about nonessentials

4 Extreme: unable to make any decisions, disabling

14. Overvalued Sense of Responsibility

Do you feel overly responsible for what you do and for the effects of your actions?

Do you blame yourself for the things that are not within your control? (Distinguish from normal feelings of responsibility, feelings of worthlessness, and pathological guilt. A guilt-ridden person experiences himself or his actions as bad or evil.)

0 None

1 Mild: only mentioned on questioning, slight sense of over-responsibility

2 Moderate: ideas stated spontaneously, clearly present; patient experiences significant sense of over-responsibility for events outside his/her reasonable control

3 Severe: ideas prominent and pervasive; deeply concerned he/she is responsible for events clearly outside his control, self-blaming farfetched and nearly irrational

4 Extreme: delusional sense of responsibility (e.g., if an earthquake occurs 3,000 miles away patient blames himself because he didn't perform his compulsion)

15. Pervasive Slowness/Disturbance of Inertia

Do you have difficulty starting or finishing tasks?

Do many routine activities take longer than they should? (Distinguish from psychomotor retardation secondary to depression. Rate increased time spent performing routine activities even when specific obsessions cannot be identified.)

0 None

1 Mild: occasional delay in starting or finishing tasks/activities

2 Moderate: frequent prolongation of routine activities but tasks usually completed, frequently late

3 Severe: pervasive and marked difficulty initiating and completing routine tasks, usually late

4 Extreme: unable to start or complete routine tasks without full assistance

16. Pathological Doubting

After you complete an activity do you doubt whether you performed it correctly?

Do you doubt whether you did it at all?

When carrying out routine activities do you find that you don't trust your senses (i.e., what you see, hear, or touch)?

0 None

1 Mild: only mentioned on questioning, slight pathological doubt, examples given may be within normal range

- 2 Moderate: ideas state spontaneously, clearly present and apparent in some of patient's behaviors; patient bothered by significant pathological doubt. Some effect on performance but still manageable
- 3 Severe: uncertainty about perceptions or memory prominent; pathological doubt frequently effects performance
- 4 Extreme: uncertainty about perceptions constantly present; pathological doubt substantially affects almost all activities, incapacitating (e.g., patient states 'my mind doesn't trust what my eyes see')

17. Global Severity

Interviewer's judgement of the overall severity of the patient's illness. Rated from 0 (no illness) to 6 (most severe patient seen). (Consider the degree of distress reported by the patient, the symptoms observed, and the functional impairment reported. Your judgement is required on both in averaging this data as well as weighing the reliability or accuracy of the data obtained.)

- 0 No illness
- 1 Slight: illness slight, doubtful, transient; no functional impairment
- 2 Mild: little functional impairment
- 3 Moderate: functions with effort
- 4 Moderate-severe limited functioning
- 5 Severe functions mainly with assistance
- 6 Extremely severe completely nonfunctional

18. Global Improvement

Rate total overall improvement present since the initial rating whether or not, in your judgement, it is due to treatment.

- 0 very much worse
- 1 much worse
- 2 minimally worse
- 3 no change
- 4 minimally improved
- 5 much improved
- 6 very much improved

19. Reliability

Rate the overall reliability of the rating scores obtained. Factors that may effect reliability include the patient's cooperativeness and his/her natural ability to communicate. The type and severity of obsessive-compulsive symptoms present may interfere with the patient's concentration, attention, or freedom to speak spontaneously (e.g., the content of some obsessions may cause the patient to choose his words very carefully).

- 0 Excellent: no reason to suspect data unreliable
- 1 Good: factor(s) present that may adversely affect reliability
- 2 Fair: factor(s) present that definitely reduce reliability
- 3 Poor: very low reliability

Children's Yale-Brown Obsessive Compulsive Scale (3/1/90)

CY-BOCS total (add items 1–10)

Patient name:

Date:

Patient ID:

Rater:

1. Time spent on obsessions	None 0	Mild 1	Moderate 2	Severe 3	Extreme 4
	No symptoms	Long	Moderately long	Short	Extremely short
1b Obsession-free interval (do not add to subtotal or total score)	0	1	2	3	4
2. Interference from obsessions	0	1	2	3	4
3. Distress of obsessions	0	1	2	3	4
	Always resists				Completely yields
4. Resistance	0	1	2	3	4
	Complete control	Much control	Moderate control	Little control	No control
5. Control over obsessions	0	1	2	3	4
	Obsession subtotal (add items 1-5)				
6. Time spent on compulsions	None 0	Mild 1	Moderate 2	Severe 3	Extreme 4
	No symptoms	Long	Moderately long	Short	Extremely short
6b Compulsion-free interval (do not add to subtotal or total score)	0	1	2	3	4

(table continued on next page)

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7. Interference from compulsions	0	1	2	3	4
8. Distress from compulsions	0	1	2	3	4
	Always resists				completely yields
9. Resistance	0	1	2	3	4
	Complete control	Much control	Moderate control	Little control	No control
10. Control over compulsions	0	1	2	3	4
Compulsion subtotal (add items 6–10)					
11. Insight into O-C symptoms	0	1	2	3	4
	None	Mild	Moderate	Severe	Extreme
12. Avoidance	0	1	2	3	4
13. Indecisiveness	0	1	2	3	4
14. Pathologic responsibility	0	1	2	3	4
15. Slowness	0	1	2	3	4
16. Pathologic doubting	0	1	2	3	4
17. Global severity	0	1	2	3	4
18. Global improvement	0	1	2	3	4
19. Reliability	Excellent = 0	Good = 1	Fair = 2	Poor = 3	

Reproduced from: Goodman, W.K., Price, L.H., Rasmussen, S.A., Riddle, M.A. and Rapoport, J.L. (1991) *Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS)*. New Haven: Clinical Neuroscience Research Unit, Connecticut Mental Health Center.

Reproduced from: Goodman, W.K., Price, L.H., Rasmussen, S.A., Riddle, M.A. and Rapoport, J.L. (1991) *Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS)*. New Haven: Clinical Neuroscience Research Unit, Connecticut Mental Health Center.

Appendix II

International Classification of Obsessive Compulsive Disorders

The essential feature is recurrent obsessional thoughts or compulsive acts. Obsessional thoughts are ideas, images or impulses that enter the patient's mind again and again in a stereotyped form. They are almost invariably distressing and the patient often tries, unsuccessfully, to resist them. They are, however, recognized as his or her own thoughts, even though they are involuntary and often repugnant.

Compulsive acts or rituals are stereotyped behaviours that are repeated again and again. They are not inherently enjoyable, nor do they result in the completion of inherently useful tasks. Their function is to prevent some objectively unlikely event, often involving harm to or caused by the patient, which he or she fears might otherwise occur.

Usually, this behaviour is recognized by the patient as pointless or ineffectual and repeated attempts are made to resist. Anxiety is almost invariably present. If compulsive acts are resisted the anxiety gets worse.

Includes:

- ° anankastic neurosis
- ° obsessive-compulsive neurosis

Excludes:

- ° obsessive-compulsive personality (disorder)

Predominantly Obsessional Thoughts or Ruminations

These may take the form of ideas, mental images, or impulses to act, which are nearly always distressing to the subject. Sometimes the ideas are an indecisive, endless consideration of alternatives, associated with an inability to make trivial but necessary decisions in day-to-day living. The relationship between obsessional ruminations and depression is particularly close and a diagnosis of obsessive compulsive disorder should be preferred only if ruminations arise or persist in the absence of a depressive episode.

Predominantly Compulsive Acts [Obsessional Rituals]

The majority of compulsive acts are concerned with cleaning (particularly handwashing), repeated checking to ensure that a potentially dangerous situation has not been allowed to develop, or orderliness and tidiness. Underlying the overt behaviour is a fear, usually of danger either to or caused by the patient, and the ritual is an ineffectual or symbolic attempt to avert that danger.

Mixed Obsessional Thoughts and Acts

Other Obsessive Compulsive Disorders

Obsessive Compulsive Disorder, Unspecified

Reproduced from World Health Organization (1992) *ICD-10 International Statistical Classification of Diseases and Related Health Problems*. Tenth revision, Vol. 1, p.342. Geneva: WHO.

Appendix III

Diagnostic Criteria for Obsessive Compulsive Disorder

A. Either Obsessions or Compulsions:

Obsessions as Defined by (1), (2), (3), and (4)

- (1) Recurrent and persistent thoughts, impulses, or images that are experiences, at some time during the disturbance, as intrusive and inappropriate and that cause marked anxiety or distress
- (2) The thoughts, impulses, or images are not simply excessive worries about real-life problems
- (3) The person attempts to ignore or suppress such thoughts, impulses or images, or to neutralize them with some other thought or action
- (4) The person recognizes that the obsessional thoughts, impulses, or images are a product of his or her own mind (not imposed from without as in thought insertion).

Compulsions as Defined by (1) and (2)

- (1) Repetitive behaviours (e.g. hand washing, ordering, checking) or mental acts (e.g. praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession, or according to rules that must be applied rigidly.
- (2) The behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event

or situation; however, these behaviours or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent or are clearly excessive.

B. At some point during the course of the disorder, the person has recognized that the obsessions or compulsions are excessive or unreasonable.
Note: this does not apply to children.

C. The obsessions or compulsions cause marked distress, are time consuming (take more than 1 hour a day), or significantly interfere with the person's normal routine, occupational (or academic) functioning, or usual social activities or relationships

D. If another Axis I disorder is present, the content of the obsessions or compulsions is not restricted to it (e.g. preoccupation with food in the presence of an eating disorder; hair pulling in the presence of trichotillomania; concern with appearance in the presence of body dysmorphic disorder; preoccupation with drugs in the presence of a substance use disorder; preoccupation with having a serious illness in the presence of hypochondriasis; preoccupation with sexual urges or fantasies in the presence of major depressive disorder).

E. The disorder is not due to the direct physiological effects of a substance (e.g. a drug of abuse, a medication) or a general medical condition.

Specify if there is poor insight: if, for most of the time during the current episode, the person does not recognize that the obsessions and compulsions are excessive or unreasonable.

Reproduced from American Psychiatric Association (1994). Reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders*. Fourth Edition. Washington: American Psychiatric Association.

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