Course on Great Experiments in Psychology Professor Rajlakshmi Guha Centre for Educational Technology Indian Institute of Technology Kharagpur Module 3 Lecture No 12 Obsessive Compulsive Disorder

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The boy who couldn't stop washing: the experience & treatment of obsessive-compulsive disorder

Rapoport, Judith L. (1989)

Hello everybody welcome back to the great experiments in psychology and in this week as I said earlier we are going to discuss about the different case studies and experiments in clinical and health psychology. So today's session we are going to discuss about the boy who could not stop washing. And this is about the experience and treatment of obsessive compulsive disorder. Now obsessive-compulsive disorder is a very common psychiatric illness that has been prevailing since long times and we have most of us are aware of this and be familiar with the term of obsessions as also compulsive behaviour. But why is this case study important?

This is important because this, with this book on the boy who could not stop washing by Judith Rappaport in 1989, the case of OCD as a psychiatric illness and that could be treated was brought into in to light that is into the public domain. So previously it was more focused within the psychiatric and the clinical circles but this is the first time it was brought into the public domain and definitely it attracted a lot of coverage and also brought in several cases of OCD who realised that it could be treated and they started visiting the clinicians.

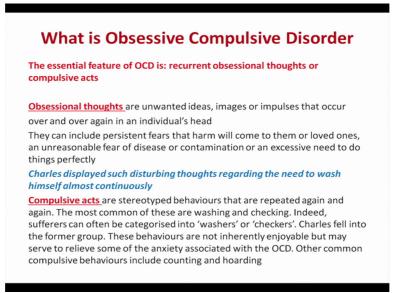
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Context • By the age of 14, Charles was spending at least 3 hours per day in the shower. He had been doing this for years. He couldn't help himself, he just had to do it • Judith Rapoport introduced one particular case study in her 1989 book The Boy Who Couldn't Stop Washing • The book is now considered a psychology classic and was one of the first to raise the topic of obsessive- compulsive disorder or OCD

So I thought it would be good to introduce this case. Now this Rappaport talks about once one boy who is named Charles who is the age of 14 and he was spending at least three hours per day in a shower and he had been doing this for years he could not stop himself, he just have to do it. So Judith Rappaport introduce this case study in the 1989 book the boy who could not stop washing and this is now considered as psychology classic and is one of the first once to raise the topic of OCD and brought it into public domain.

Now what is OCD? So most of us are as I said familiar with the term obsession and also compulsive behaviour, now obsession is recurrent thought, so that is one thought that is constantly coming in one's brain and he that is that is something at that is affecting him that is disturbing his the thought processes and pairing is social lifestyle. So these could be generally these could be related to dirt, could be related to some other unpleasant thoughts like somebody dying at home or you know something which is unpleasant that is going to happen. Now or it could be in a form of images or impulses.

So we often come across if you look at old psychology uh books you will see especially abnormal psychology books you will come across cases where it is reported that individual is feeling that he or she may just want to kill his children. So that could be an impulse and that this thought that I may harm my children many times is brings about the compulsive behaviour of hiding away removing all the nice and sharp instruments so that one does not get the urge to harm somebody.



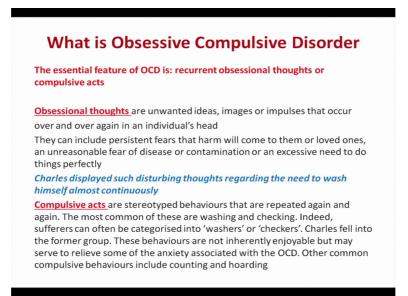
Now so basically coming back to obsessions, obsessions are our recurrent thoughts and these thoughts are unwanted ideas, images or impulses occurred over and over again in an individual's head. So they could be as I have mentioned related to harm that will come to themselves or to their loved ones or an unreasonable fear of contamination or disease or an excessive need to do things perfectly.

So just to give an example of an obsessive thought, if I start thinking that this table is dirty, so this is a thought, so what makes this an obsessive thought, so the moment I get this thought that this table is dirty, the immediate compulsive act or the action that follows this thought is "I need to clean it". So if I clean it once and this thought is removed from my mind and am focusing am able to focus on other things then I do not have an obsessive (())(5:00) or this thought is not an obsessive thought and I do not need to follow it with the compulsive behaviour of washing this place or cleaning this place.

But if after some time, while I am talking to you if the thought recurs again that Oh! No this place is still dirty and again the compulsive act is followed of cleaning this place, then definitely I have an OCD and obsessive compulsive behavioural pattern. So this thought that is that is why the feature of the classical feature of this obsessive thought is it has to happen it has to occur in one's head recurrently. Now and it once then why is it followed by compulsive behaviour. The compulsive behaviour reduces the thought or reduces the anxiety allowing the thought some time, but why is it compulsive? It is because the individual is compelled to act on the thought.

So because there is this thought that this is dirty, I am compelled to clean it to reduce that thought of this place being contaminated or dirty. So this recurrent thought actually is reduced on this anxiety behind this recurrent thought is reduce by the compulsive behaviour. So generally that is why we see that obsessive thoughts are followed by compulsive behaviour. Now getting back to Charles, Charles displayed such disturbing thoughts regarding the need to wash himself almost continuously and we spoke about compulsive behaviours right now.

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So there are some other compulsive behaviour that is common other than washing and cleaning. The other which is most common is that of symmetry, so if this this does not seem properly aligned with the table you will often come across people who say that I when this picture is not the order and is not aligned I have a problem so I need to put it in order. But this is not obsessive disorder, obsessive-compulsive disorder it becomes a disorder, we call it a disorder, when the individual's thought is so disturbing the thought of maintaining symmetry is so disturbing or the act of maintaining symmetry is so disturbing that it impairs other behavioural patterns.

So I have come across patient who had to constantly align its keyboard the monitor so if the keyboard the moment he pressed a key he felt that the keyboard is not aligned with the monitor and he would need to check it again put it in symmetry and then start working. So just imagine how much time he would require to do a task properly. Many a times I have come across students who have to who have this urge of cancelling the last word they have written or maybe cancelling some 1 - 2 words as the keep writing because they feel if I do

not do this then something may go wrong in my house today somebody may die or maybe you know thoughts like somebody may be harmed. It could be thoughts like I am going to fail if I do not cut this cancel this word, so the whole act of writing is getting delayed. So this is again a compulsive act.

Now another common very common compulsive act is that of counting and there are many people who have to constantly count I will count three after three I will go over here or maybe you know if I see a temple on the road then I need to count seven times and then I can move ahead, so these are some of the common things that we see in CD and for many years, possibly was thought of as a rare disease because people with OCD hardly seek treatment. So most of the times we did not get cases reporting of OCD and that led to lot of underestimates about disease.

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OCD Prevalence

• For many years, OCD was thought of as a rare disease because many people with OCD kept their thoughts and behaviours secret and failed to seek treatment for their condition

• This led to under-estimates of the incidence of the disease

 Rapoport's book helped to uncover the scale of the problem. The book showed that OCD was far more common than other better known disorders such as bipolar disorder (manic depression) or schizophrenia

 It is now estimated that <u>approx 1.1 -1.8%</u> of the population suffer from OCD (DSM V, 2013)

 Females are affected at a slightly higher rate than males in adulthoo although males are more commonly affected in childhood (DSM V,

Now Rappaport's book help to uncover the scale of the problem and there were several as I mentioned earlier at there were several people who started reporting to the clinics with complaints of OCD because before then also they did not realize that this was an illness that could be treated and it is now estimated that approximately 1.1 to 1.8% of the population suffer from OCD and this has been reported by the diagnostic and statistical manual for mental disorders in 2013. And it is also seen that females are affected that is a slightly higher rate than males in adulthood, although males are more commonly affected in childhood. So that brings us to Charles again.

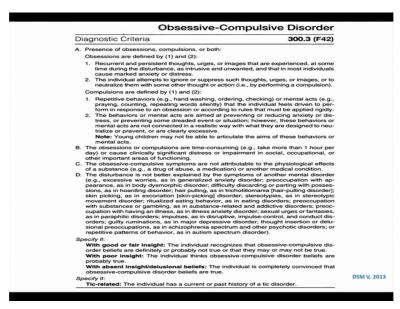
The boy who started it all

- Charles was an ideal case study into OCD because he displayed many of the classic symptoms of OCD. OCD is one of the anxiety disorders and is a disabling condition that can last a lifetime. Typically, OCD symptoms emerge during the teenage years, however they can occur at younger ages. Suffering from OCD during the early stages of a child's development can have serious effects on later behaviour. If left untreated, OCD can destroy a person's capacity to lead a normal life. This was certainly the case for Charles
- At school Charles had been an enthusiastic student with particular ability in chemistry and biology. There had been talk of him pursuing a medical career
- However, at about the age of 12, he had started to wash compulsively. There appeared to be no reason why this behaviour started but washing took up more and more of his time each day

So Charles was an ideal case study into OCD because he displayed many of the classical symptom of OCD and what were they? They were during typically OCD symptoms emerge during the teenage years and Charles as we know was only 14 years of age and of course it is often seen that it also happens earlier. Now how did it start with Charles? So when Charles was in school he was enthusiastic in chemistry and biology and around age 12 he suddenly started to wash compulsively and there appeared to be no reason why this behaviour started but washing took up more time of his day.

Now it started increasing so with time you will also see in other cases of OCD that initially it starts with a lesser amount of time with but with every passing day the amount of action or the amount of if it is washing behaviour the compulsive behaviour starts increasing and actually covers are it becomes all-encompassing and affects all the other aspects of living.

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In fact, most of the family is also affected by OCD and the reason being that the care givers in the family or the other members of the family also need to abide by certain rules especially if it is a case of washing that is a fear of contamination, then mostly the others also need to maintain, are compelled to maintain cleanliness as per the regimentation of the patient.

And this on the other hand actually increases the OC features, obsessive-compulsive features in the patient. So this is the diagnostic criteria of OCD and as per were DSM 5 given in 2013 and we see that some of the OC...OCD patients have good insight good or fair insight and some have very poor insight, so individuals suffering from CD who have a good insight that is for aware at this is a problem and they need to deal with it rather than who are comfortable with the problem and they do not find it a problem at all. People who have insight they are, their prognosis or their treatment would come as better as compared to patients who have poor insight, so some of the other features that are very common with OCD is magical thinking and ambivalence.

So magical thinking is it's generally it is related to something that will happen I do not know how? So it is it is like if I as I was mentioning about a boy who had to cancel his it is one of the people I saw who had to cancel the words as he progressed while writing something thought that there is something going to go wrong at my home if I do not cancel this word my mother will die. Now why has this thought, how is it going to happen if you ask him, he would say that I do know about that but something that is going to happen I know that so my mother is really going to die, so I cannot take that chance so I need to cancel it. So just imagine the amount of anxiety that is created by the thought that if I do not do this behaviour this might happen, so who is going to take a chance and most of the times these magical thoughts seems so real that they would often at individuals suffering from OCD would often be compelled to carry out the action.

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Most OCD sufferers struggle to stop their obsessive thoughts and prevent their compulsive actions $% \left(\mathcal{O}_{\mathcal{O}}^{(1)}\right) =0$

- Charles was no different. For a while he was able to keep his obsessivecompulsive symptoms under control during the time he was at school. However, over the months, his resistance weakened and his OCD became so severe that his time-consuming rituals took over his life
- Charles was forced to leave school because he was spending so much of the day washing. His washing ritual always followed the same deliberate pattern He would hold the soap under the water spray for one minute in his right hand and then out of the water for one minute in his left hand. He would repeat this for at least one hour. After washing for about 3 hours, Charles would spend about 2 hours getting dressed

Now as now coming back to Charles again, most like most other OCD sufferers, they in their way they try to stop the obsessive thoughts and prevent their compulsive actions and coming to Charles, Charles also tried to do it and he was he could keep the symptoms under control during the time he was at school. But over sometimes over the months as in progressed it was seen that his resistance weakened and even in school time he started spending most of the time washing.

So Charles was forced to leave school because he was spending so much time of the day washing and his washing ritual always followed the same pattern. If you come across and OCD patient has this fear of contamination and spends a lot of time washing his hands or especially if he is going to the toilet, then you will see there is a ritual that is followed. So several times if the person is washing his hand like this and this, so there is an idiosyncratic rituals, so each individual as his or her own ritual.

Another example that I can sight is a very common thing in OCD patients that they have a ritual with touching while walking, so I whenever I am going to was this room one of my patients told me I have two and that is the edge of the table, so this have to touch and then with my right hand have to touch another corner, so these are idiosyncratic individualistic

rituals that are part of that thought pattern of OCD and Charles would also followed his own ritualistic pattern of washing his hands and he would do holders so under the water spray for one minute of his in his right hand and then outer the one water for 1 minute in his left hand and he would, so he also had to wash the soap after washing his hand. So this this whole ritual took up more than an hour and after washing for about three hours he would spend around two hours to get dressed, so imagine the amount of time that is being taken by Charles and how it was actually impairing his social life.

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Behaviour impairing social life

- Charles' behaviour was affecting other people's lives as well as his own. His mother was at her wit's end. At first she discouraged his strange washing rituals, but later, not wanting to see his misery, 'helped' him by obsessively cleaning items in the house that might 'contaminate' him
- She cleaned everything he might touch in the house with alcohol and stopped people from entering the house with their 'germs'. Charles's father could not understand these behaviours and spent more and more time at work



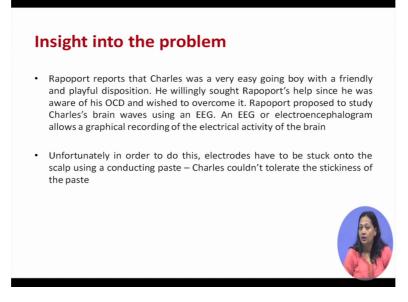
So his behaviour was not only affecting him but also affecting other people's life specially his mother's. At first she was she discouraged his strange washing rituals but later not wanting to see his misery, helped him by obsessively cleaning items in the house, so that it might not contaminate him, you know just this brings in memory of another case that I saw, where the individual would not prefer anybody wearing the rooms slippers into the bedroom.

So there was a separate set of slippers for the whole family, this was the father that I was seeing, so all the other members of the family, they had a separate pair of slippers just for the bedroom, a particular bedroom where he slept, so if anybody had to get into the room they would have to keep their house slippers home slippers outside that room and where another pair of slippers when he would when they would get inside the room and if God forbid anybody forgot and by chance entered then he would have to clean himself, wash the slippers, wash other slippers and also wash the room.

So just imagine the amount of effort that people would need to go through an amount of pain is taking ritualistic behaviour that the others in the family also induced to take to keep the individual, the individual patient that is satisfied. Actually you know to keep the anxiety down, but most of the time so what happens is, instead of bringing the anxiety down so this helpful behaviour would also become a part of the ritualistic pattern and the next day or maybe days later, what would happen is, new ritualistic patterns would developed and this would add on to the misery of the household.

And as with Charles mother, she started cleaning everything that he might touch in the house with alcohol and stop people from entering the house with their germs, so they would need to take a bath outside, you know before immediately getting in so that the germs were not contaminating the household. Charles's father was not really accustomed to these behaviours and not what's he planning to get accustomed, and so he spend most of his time at work.

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So, as I was talking about having an insight into the problem, Rappaport reports that Charles was a very easy-going boy with a friendly and playful disposition and he realised that he had a problem, so the prognosis was better, so as I was talking about treatment outcome and he willingly saw Rappaport's help, since he was aware of his OCD and wish to overcommit.

Many times people suffering from OCD for a long time, do not wish to overcommit, especially people with having washing mania, so people with fear of contamination who spend most of the time washing are generally many a times they do not and have been doing this for a long time which is become a part of their daily habit, do not wish to change their

behaviour annual see that these people will say that I am doing fine I am okay I am just a little you know I am a little cleaner as compared to others I prefer a disciplined life and I prefer cleaning up things rather than actually you know remaining dirty, so I do not think I have a problem. People who were actually complaining about me having a problem are the dirty ones and they have a problem.

So this is also a very common and done that you get to see with long-term OCD patients with very poor insight but Charles was one with better insight and Rappaport propose to study Charles's brain using an EG. And he actually she actually wish to record the EG pattern, unfortunately this increased Charles OC features. Why? Because you know those days there were no dry electrodes so the electrodes needed to be for getting an electroencefalograma of the brain, the electrodes needed to be pasted with a sticky paste and that made Charles more irksome and he started feeling that you know that that made him feel more anxious and dirty, so that could not be done.

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How did he develop OCD? Rapoport spent hours talking to Charles trying to understand why he had developed his OCD Charles felt that he was compelled to do so by something inside him. He did not hear voices telling him to do it but he did feel some internal and insistent sense of having to wash compulsively. He was aware that his behaviour appeared crazy to others but didn't feel crazy. Like many other OCD sufferers, Charles showed insight into his condition He recognized that his obsessions and compulsions were ridiculous, but just couldn't help himself. He just felt this compulsion to wash. He really was the boy who couldn't stop washing. He believed that he might become sick or that it would be bad luck to stop washing. Although a bright boy he couldn't adequately explain why his

Now Rappaport tried to explore how Charles developed his OCD. Charles felt that he was compelled to do so by something inside him so he it was not that he was having or (())(22:03) hallucinations or delusions and he did not hear voices telling him to do it but he felt some internal and insistent sense of having to wash compulsively and he was aware that this behaviour was not right and it might appear crazy to people but he was not crazy he felt that and like many OCD features Charles showed insight into his condition.

compulsion had started or, indeed, why it continued

He recognize that is he recognize that his obsessions and compulsions were not normal behaviour so they were quite ridiculous but it is just that he could not help himself he just had to wash. So he that is how Judith Rappaport got the title of her book saying he "the boy who could not stop washing". So he actually was a boy who could not stop it, so when asked when Rappaport tried to explore, what would happen if he did not wash, he believed that he might become sick or that it would there would it would bring a bad luck if he stopped washing and as I was talking of magical thinking just before sometime when explore further most of the times in such patients are not able to tell you what exactly might go wrong.

So just like uh h you know Charles was talking about bad luck would follow, he could not explain how this compulsion has started and why would bad luck follow. So there was you know there was no link between the thought between the magical thinking and the compulsive behaviour or you know a rational for it rather there was definitely a link but the behaviour because the behaviour actually reduce the magical thought but there was no real link so if how can this be rationally explain if you wash how will bad luck not follow, he was not able to say that.

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Causes

- Current explanations for the cause of OCD concentrate on biological factors and OCD patients appear to benefit from drug treatments
- Charles certainly did until he developed drug tolerance and the beneficial effects waned
- This suggests that the disorder has a neurobiological basis
- Environmental influences too → predispose a person to develop the disorder and thus research concentrates on the interaction between neurobiological factors and environmental influences, as well as cognitive processes
- Brain scans of patients with OCD suggest that their patterns of brain activity are different from those with no reported psychiatric disorder
 OCD sufferers appear to have <u>significantly less white matter</u>, but <u>significantly greater general total cerebral cortex</u> than so-called 'normal' control participants
 - This finding also suggests a neurobiological cause of OCD (Jenike et al., 1996)

Treatment

Charles was treated with the drug Anafranil and his symptoms disappeared for about a year. Unfortunately, he developed a tolerance to the drug \rightarrow This involves a decreasing response to constant doses of a drug or the need for increasing doses to maintain a constant response

Although some of his symptoms returned they were not as marked as before and he was able to control the amount of washing he did. Charles found that by conducting his washing rituals in the evenings they did not interfere so much with his day-to-day activities

There are two main therapeutic approaches for OCD: drugs and behaviour therapy. These therapies can be used simultaneously and this is usually decided in a joint consultation between the patient and therapist

So there have been several causes that have been looked into as responsible for creating OCD and most of them point towards the biological region and this is so therefore since it is many because a neurobiological reason being identified drugs can be really helpful or treating OCD and Charles was actually treated with a drug we will see that but that was Anafranil and it was an SSRI so that is a specific certain in reuptake inhibitor but he developed tolerance towards the drug and that had to be unfortunately the positive response that he was giving initially, that started decreasing. Now another of the cause at this scene is learning behaviour, now can OCD be learned.

So several kinds they say there are several learning theories that have shown that OC features can be actually modeled, so if there is a person who is having OC obsessive features at home so that made it may be modeled and inculcated within the human being who keep things cemetery or keep things clean and saviour amount of washing is followed. Now this behaviour one of the reasons is an environmental reason and you will see that there are several cultures also follows these say ritualistic behaviours is a part of the cultural identity, so individuals developing say that was one of the reasons why very few patients even today are reported with cases of OCD.

Specially in India so like you will see that in India there are many patients who have this habit of specially women at home having a habit of keeping things clean and that is so culturally viable that is so acceptable within the society as she is okay and it is just that she is she loves keeping things in, that several times OCD gets remains untreated, unless it increases to such a proportion that it is impairing all the other aspects of life and also

affecting others life so that is the disorder is not diagnosed till it has already progressed a long way.

So and seeing the brain scan of patience with OCD it has it is observed that the pattern of brain activity are different from the people who do not have any psychiatric disorder and it that generally what it shows is the obsessive-compulsive disorder patients have significantly less white matter a significantly greater general total cerebral cortex as compared to others normal participants and at also points towards neurobiological course of OCD.

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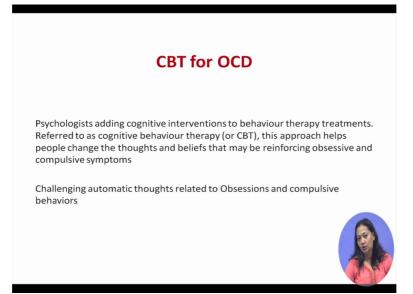


So as I mentioned earlier one of the treatment possibilities is using a drug that is affecting the neurotransmitter serotonin and this was basically used with Charles as well and another treatment pattern therapeutic regiment that is followed with obsessive-compulsive disorder is behaviour therapy and specially exposure and response prevention and exposure and response prevention actually addresses in learning theory so it practices that if you get the individual's post to if I am talking of fear of contamination so getting exposed to the dirt but not allowing the person to lean the place.

So that with time the amount of anxiety is cost by looking at the dirt will reduce and it will also break this pattern of despairing of we spoke about classical conditioning and pairing in the previous session, so here this would also break the pattern between seeing dirt and cleaning behaviour. So the moment I see or another example the moment I see something is crooked the habit of immediately putting it into symmetry, so or bringing an alignment, so this would actually... so there is an exposure to the unpleasant material or the stimulus would create a thought but stopping the compulsive behaviour from taking place to break the pairing of the obsessive thought and the compulsive behaviour.

So this has been seen that behaviour therapy is really helpful of patience but unfortunately most of the times the patience drop out of therapy specially behaviour therapy pretty frequently. One of the reasons being that it also takes a lot of will to and this what should I say this resistance that you face from your own self who stopped new pattern developing this new pattern of behaviour that is this changed way of behave into certain circumstances, it is quite easy to clean the place if I feel this is dirty, rather than resisting and not cleaning the place because that would cause more anxiety, so many of the patients are more often (()) (30:10) they drop out of therapy cause of this.

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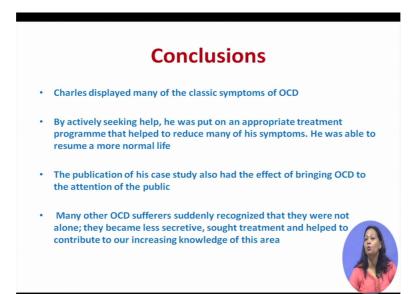


Another type of therapy that has been followed with OCD and which really gives yield good results is cognitive behaviour therapy, where cognition is addressed and as the term suggest that along with behaviour therapy is type of therapy focuses on the thoughts and believe. So that is related to the obsession. So if I obsession and compulsive thought primarily say like if I do not and sell this word then somebody might die at home, so the magical thinking is challenged, so the individual is thought to challenge his own belief at turn and along with that the behaviour therapy principle are followed.

So of course CVT was not followed with Charles, but BT behaviour therapy and primarily medication was followed, so why have we discussed this case today, because this is this is not an experiment but this is a case study at Judith Rappaport reported in her book "the boy who

could not stop watching" and this brought about this is an important turning point or psychiatry where you know OCD cases started being reported and to understand the how portend it is to report cases.

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We see that even a single case make such an important difference and Charles Shaw the classic symptom of OCD and by actively seeking help you was put on appropriate treatment program that helped to reduce many of his symptom, he was able to resume a normal life and this publication of this study boosted people to bring their problems to the clinics and that also that this people suffering from OCD people having OCD first and foremost, they are suffering and this is an illness that can be treated, so it really brought in a lot of people to the clinics and were also increased the clinical psychology and psychiatry knowledge of this disease. So I thought it would be a good idea to introduce this. Thank you.