## UNDERSTANDING HOW OCD WORKS

Obsessive-compulsive disorder (OCD) is an anxiety disorder, meaning that it involves excessive, irrational, or unreasonable fear and anxiety. Anxiety is typically associated with the anticipation of future negative events; for example, "what if \_\_\_\_ happens?" Other anxiety disorders include phobias (e.g., fears of thunderstorms or heights); panic attacks, and generalized anxiety which is defined as uncontrollable worries concerning situations such as work, health, or finances. In OCD, people have unwanted or senseless thoughts (obsessions), and urges to perform certain behavioral or mental rituals (compulsions).

Researchers have been interested in understanding the causes and symptoms of OCD, and thus have conducted numerous studies on this topic beginning in the middle of the 1960's. This research has confirmed two important facts about OCD: 1) obsessions evoke anxiety and distress; and 2) compulsive rituals reduce anxiety and distress. This handout explains these important relationships in more detail. The explanations can be divided into two parts: 1) how obsessional fears develop, and 2) why obsessional fears continue.

## PART 1: HOW DO OBSESSIONS DEVELOP?

Let's first examine obsessions. Obsessions are unwanted intrusive thoughts, ideas, or images that evoke anxiety, worry, or discomfort. Their content is usually senseless or bizarre- and the person often recognizes this. People with OCD try to resist their obsessions- meaning that they try to stop the thoughts, often unsuccessfully. Broadly speaking, obsessions often concern the possibility of danger, harm, or responsibility for danger or harm. Their specific content may focus on aggressive actions, contamination, sex, religion, mistakes, physical appearance, diseases, need for symmetry or perfection, among other topics.

You may be surprised to learn that intrusive, upsetting, unwanted thoughts that resemble obsessions are experienced by just about everyone in the world. That is, people without OCD experience the same kinds of unwanted and intrusive thoughts as do people with OCD. Indeed, human beings have many, many thoughts while awake and during sleep, and so it would be expected that our brains will, at times, focus on bizarre or senseless thoughts. To illustrate this, researchers have conducted studies in which people with OCD were asked to list some of their unpleasant unwanted thoughts, as were a group of people who did not have OCD. The researchers then gave the lists of thoughts to psychologists and psychiatrists and asked them to distinguish between the thoughts of people with and without OCD. Indeed, the professionals did a poor job of determining whether the thought was from an OCD or non-OCD person. Here is a list of intrusive thoughts reported by people without OCD:

- Impulse to harm someone
- Thoughts of accidents involving loved ones
- Thought of harm coming to one's children
- Impulse to jump in front of an oncoming vehicle
- Impulse to shout rude or inappropriate things during a performance
- Thought about harm from asbestos
- Impulse to shout at someone or abuse them

- Thought about harm coming to husband/wife
- Doubts about having committed a sin
- Thought of being punished by God
- Impulse to curse in church
- Thoughts of accidents or mishaps
- Thoughts of children getting sick
- Thought of "unnatural" sex acts
- Thought about molesting children
- Images of germs festering on one's skin
- Sense that something is not perfect
- Bad thoughts about God

These studies demonstrate that people with OCD do not have something terribly wrong with their brains that cause them to have terrible, senseless, or immoral thoughts. And, this is good news because it means that the thoughts of people with OCD are not "abnormal". Their thoughts are no different than people without OCD. What is different, then, is the intensity and amount of time people with OCD spend with their thoughts, as well as the distress that these thoughts provoke.

You might be wondering why these strange but completely normal negative intrusive thoughts exist in the first place? This is probably due to the fact that as humans, we have highly developed and creative brains. We are able to imagine all kinds of scenarios- some more pleasant than others. We have a "thought generator" in our brain that sometimes generates thoughts we would rather not think about. Sometimes, the generator produces thoughts about danger even though there may not be any real threat present.

### DIFFERENCES BETWEEN PEOPLE WITH AND WITHOUT OCD

But, if intrusive distressing thoughts are a normal part of life for everyone, every day, why do some people develop OCD and others do not? Why do some people have more unwanted thoughts, that are more distressing, and that are so hard to control or get rid of? It turns out that scientists have discovered differences in how people with and without OCD *interpret* their unwanted negative thoughts. Depending on their mood, people without OCD seem to simply dismiss their senseless thoughts as meaningless and not worthy of further attention. In response to such a thought, they might automatically say to themselves, "that's a silly thought, I would never do that", or "that thought doesn't make sense, time to think about something else." When this happens, the person doesn't pay any more attention to the thought, and the thought passes.

For people with OCD, however, things go much differently. Studies have found that people with OCD misinterpret their intrusive thoughts as highly meaningful or significant in one way or another. In fact, many people with OCD view their intrusive thoughts as threatening. When this happens, it activates the body's automatic danger detection system (the "fight-flight" system), which causes us to pay more attention to the perceived threat. Sometimes, however, the danger detection system overreacts by acting like there is a tiger lurking around the corner, when there is really only a kitten. Therefore, it is not surprising that people with OCD pay lots of attention to particular unwanted negative thoughts that they misperceive as being threatening. This occurs because attention to threat serves to protect us. If nature did not endow us with the reflex to pay attention to potential threats, we would not have survived as a species.

So, as you can see the main difference between people with and without OCD is in the importance that they attach to their intrusive thoughts- not the thoughts themselves. It is no coincidence that we typically see contamination obsessions among clean people, harming obsessions among gentle people, blasphemous or sexual obsessions among religious or moral people, and thoughts about mistakes among careful people. The more important something is, the worse it seems to have a bad thought about it.

# MISINTERPRETATIONS OF INTRUSIVE THOUGHTS IN OCD

It turns out that most people with OCD make similar types of misinterpretations of their intrusive thoughts-misinterpretations that lead to feeling threatened. Below, we will explore some of these.

People with OCD often feel overly responsible for harm or danger associated with their obsessional thoughts. They may have a particular thought and immediately jump to the conclusion that they had better act to reduce the chances of something terrible happening. But they do not stop to evaluate the realistic probability of danger- which is usually extremely low. So, people with OCD often act on the blind assumption that their intrusive obsessional thoughts are true (which, as we have seen, is not the case). In addition, whereas people without OCD typically assume a situation is safe if there is no recognizable sign of danger, people with OCD assume obsessional situations are dangerous and require excessive

assurance that they are, in fact, safe. Thus people with OCD have an "intolerance of uncertainty".

Another error that people with OCD sometimes make is to believe that it is somehow bad to have bad thoughts. This is simply not true. In fact, as human beings, we are fortunate to have the capacity to think about anything we want. We can plan ahead, remember, and create fantasies about both positive and negative events. Our thoughts are private occurrences and we can hide them from others if we choose. Further, we can decide whether or not to act on our thoughts. As we have seen, everyone at times has unpleasant thoughts about actions we would consider inappropriate or immoral. Whereas there might be consequences for acting on these thoughts, we are completely free to imagine such events without consequences. Indeed, most movies, shows, books, artwork, and science are the result of this wonderful ability to think creatively.

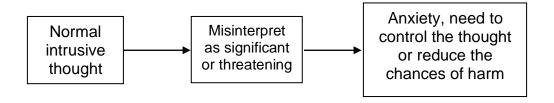
Some people with OCD fear they will automatically act on their obsessional thoughts without thinking. Thus having the thought is perceived as dangerous because it will lead to a terrible action. However, this is not true. Our thoughts are not the only determinant of our actions. Indeed, we have the free will to pick and choose which thoughts we will act on and which we will not. You might experiment by thinking about standing up out of your chair, but deciding not to actually stand. If you decide not to stand, all the thinking in the world will not cause you to stand. In fact, there is nothing that can make you stand if you consciously choose not to. So, thoughts about inappropriate or harmful actions that you don't want to act on cannot actually cause you to act against your will.

Other mistakes include "magical thinking"- believing that if you have a thought about an event, it makes the event more likely to happen. But this is illogical as well. Just because we think of something does not make it more likely to occur. Think of how many times you think about something and it doesn't happen. The mistake here is the tendency for people with OCD to base their predictions on what they feel, rather than on what their experience, or other kinds of valid evidence, tells them.

Another common mistake is to believe that you can, and should, control your thoughts. Not true. In fact, human beings are notoriously poor at controlling their thoughts. You might know this first hand if you have ever tried to stop yourself from having a specific thought- this is called "thought suppression". Most likely you found that attempts to suppress your unwanted thoughts resulted in the thought coming back. Researchers have studied thought suppression extensively finding that people cannot stop their thoughts by simply telling themselves not to think them. So, using this strategy with obsessions is doomed to fail also. In fact, one of the ways obsessions can develop is by habitually trying to suppress thoughts. If you believe a thought is dangerous and try to suppress it, but can't, you will start to feel more and more anxious. However, if you believed 100% that your unwanted thoughts are not threatening, you would not have the need to control or suppress them, and the thoughts would actually occur less frequently.

#### A MODEL OF THE DEVELOPMENT OF OBSESSIONS

What we have described so far helps to explain how obsessional thoughts develop. A simple model of the development of obsessions would look like the following:



## PART 2: WHY DO OBSESSIONAL FEARS CONTINUE?

This brings us to the second part of our explanation: how obsessions continue. Once a fear or obsession is established, people naturally seek to reduce their discomfort. As stated above, if a person feels threatened, they will act to remove the threat. In OCD there are two methods of removing threat evoked by obsessions. The first is to avoid threatening situations or thoughts in the first place. The second is to escape from unavoidable situations or thoughts. As we will see, both have the same eventual outcome—they actually strengthen obsessional fears. We will focus on avoidance first.

## **AVOIDANCE**

People with OCD spend a lot of energy avoiding situations that provoke obsessional anxiety. This is understandable since no one wants to feel anxious or threatened. Avoidance may be subtle, such as turning the channel on the television or not touching a certain surface; or it may be overt, such as driving out of your way to avoid passing a certain landmark. Thus, avoidance tends to be one of the more devastating aspects of OCD because it can severely restrict people from their normal functioning. The purpose of avoidance in OCD is to dodge confrontation with feared situations featured in obsessional thoughts and reduce the likelihood of anxiety and harm. So, there is a relationship between obsessional thoughts and situations that are avoided. However, as we have seen above, obsessional fears are unrealistic and usually based on a person's thoughts as opposed to real threat. Thus, avoidance is an exaggerated response to situations that pose little if any real threat.

Not only is avoidance an excessive response to obsessions, it also <u>strengthens</u> obsessional fears in two ways. First, because it requires effort, avoidance calls greater attention to the obsessional thought. You start to believe "if I have to go to so much effort to avoid, it must be important." In addition, avoidance leads to being overly watchful, or "hyper-vigilant", for possible things you must avoid. With time, more and more situations become potentially threatening, further restricting your activity. Again, this results in increased significance of the obsessional fear. Second, avoidance prevents you from learning that your obsessional fear is not valid. That is, by avoiding, you never give yourself the opportunity to enter a feared situation and see that (a) harm is unlikely to occur, and (b) you can handle the temporary anxiety and discomfort that eventually goes away. Thus, avoidance contributes to the continuance of obsessional fears.

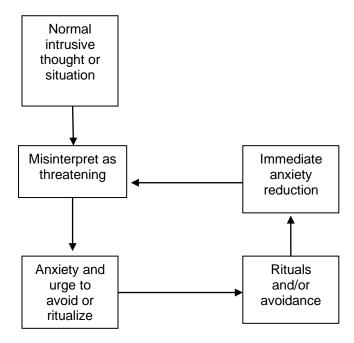
# COMPULSIVE RITUALS AND "ESCAPE BEHAVIOR"

The second method of removing threat is by escaping from situations judged to be threatening. Indeed, it is perfectly natural to want to escape from potential harm-- people leave a burning building as quickly as they can. In OCD, escape involves intentionally performing a behavior or a mental act to reduce the likelihood of harm. We call these compulsive rituals, and they often take the form of repeated washing, checking, praying, arranging, mentally neutralizing, repeating, and asking for assurance. These are all forms of escape because they are performed to reduce (a) uncertainty, (b) anxiety/distress, and/or (c) the potential for danger. For example, a person with obsessional fears of contamination from floors might avoid touching floors and wash their hands if they came into contact with something they fear may have touched the floor. This washing serves to reduce the distress because, to the person with OCD, it has removed the possibility of contamination. Importantly, compulsive rituals represent excessive behaviors because you are actually not in any danger in the first place.

As with avoidance, compulsive rituals also serve to strengthen obsessional fears. First, you may have come to believe that "something worth ritualizing about must really be dangerous". Second, if compulsive rituals serve as an escape from perceived danger, than by performing rituals you never give yourself the opportunity to see that the obsessional situations are not dangerous. In addition, people with OCD often come to believe that their rituals really prevent the disastrous consequences they fear. In the example above, the person might believe, "I did not get sick because I washed my hands a special way." This is a dangerous trap because not only is it a false belief, but it leads to strong feeling that the ritual is important in keeping safe. Thus, rituals also serve to reinforce obsessional fears.

A final point about compulsive rituals is that they seem to be effective for reducing anxiety in the short term. That is, after performing a ritual, you might feel a sense of relief or completion. When this occurs, it means you have tricked yourself into believing that you have just averted catastrophe. As we have seen, there was no threat to avoid in the first place, so this feeling is superstitious. However, the feeling of relief is important because it quickly leads to more urges to complete this ritual the next time you feel threatened. That is, because the ritual made you feel better, you learn to do it again to escape threat under similar circumstances in the future. Psychologists call this "negative reinforcement". This is how rituals become a strong habit. In the long term, however, rituals are wasteful because they teach you to use excessive, time consuming, and meaningless tactics to reduce fear and distress.

So, you can see how avoidance and compulsive rituals, by virtue of their ability to reduce fear and distress, help to strengthen OCD symptoms of obsessional fear. If we think of a model of OCD that incorporates rituals and avoidance, we have the following:



Misinterpretations of normal, harmless intrusive thoughts leads to increased fear and urges to reduce the fear by ritualizing or avoiding. Rituals reduce the fear in the short term, but reinforce the misinterpretation of obsessional fears and situations as dangerous. Thus, opportunities to learn that your fears are unfounded never occur. Obviously, then, once you believe that obsessional situations and thoughts do not represent a high risk of harm, you will feel fewer urges to avoid situations or perform compulsive rituals. Cognitive-behavior therapy (CBT) is a treatment based on this idea and will help you to (a) correct faulty beliefs about your thoughts, (b) weaken the associations between certain thoughts and feelings of uncertainty, anxiety, and distress, and (c) reduce the urges to avoid or perform compulsive rituals.