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Abnormal Psychology / PSY 201

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What Are The Clinical Features Of Obsessive–Compulsive Disorder? How May This Condition Be Treated Using Drugs And Psychological Therapies?

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Obsessive-compulsive disorder (OCD) is a psychological dysfunction characterised by several distinct symptoms, often exhibited by strong impulses to carry out actions – obsessions – and the performance of repetitive rituals – compulsions (Gelder et al., 1994). Historically, this disorder was originally confused with schizophrenia due to some limited similarities between the two in terms of reference, control or possession of the thoughts (who was 'issuing' the instructions to the subject), but it was only as recently as the 1970s that the disorder was argued to be separate (Gleitman et al., 1999). This was mainly due to the realisation that the impulses were not controlled externally, but were generated internally. The complex nature of OCD and the multifaceted way it is exhibited have made it very difficult to study in a biological cognitive fashion. The symptoms of OCD can often occur after a stressful incident, but a direct causial link has not been discovered, with the best correlation between the disorder and onset of OCD being between +.55 and +.60 (Gleitman et al., 1999). A direct genetic cause to OCD was postulated by Sims (1988), but often monozygotic twins have one with, and one without the condition. It should be noted that OCD has been found to occur more often than average in subjects suffering from *encephalitis lethargica*, but no causial link between a specific lesion and the condition has been identified (Gleitman et al., 1999); (Sims, 1988).

In order to describe the clinical features of OCD it is necessary to break the symptoms displayed into the two categories of obsessive and compulsive symptoms. This will allow these separated symptoms to be examined further to see what pharmaceutical and psychiatric measures can be employed to alleviate the symptoms of OCD. It has been argued that in abnormal psychology, often it is not possible or practical to attempt to reverse the effects of a disorder, but educating a patient or subject to reduce the noticeable effects of a malady is often a competent alternative.

Looking at obsessions firstly, it can be argued that every patient presents unique symptoms, but that generalisations can be drawn in the manner of the obsession (Carlson, 1995). *Obsessional thoughts* can often take the form of repeating phrases or even a single word the subject finds difficult not to think about or say. This may well be a blasphemy or swearword, or on a subject the subject finds distressing. These impulses differ from the Tourette's form of impulses in that the subject is able to see the irrationality of their actions, and despite having the impulse, is able to suppress it (Simeon et al, 1992). *Obsessional doubts* are intrusive concerns felt about a recent action the subject has undertaken. An example of this may be the subject doubting whether they did turn the television off, fearing that it may catch fire if left on unattended; this doubt will lead to the subject returning many times to check their competence in a task. *Obsessional ruminations* can be described as long, complex thought trains which are often philosophical in nature, but are irritatingly unnecessary and repetitive, often frustrating the subject by their not being able to reach a conclusion on the matter. An example of this is a subject worrying about the end of the world for often weeks on end (Kalat, 1998). Finally, *obsessional impulses* are strong desires that the subject desires to carry out, despite their social unacceptability. As with obsessional thoughts, the subject is usually able to recognise the fact that this should not be acted upon, and is able to do so (Carlson, 1995).

Just as the obsessions tend to follow one of the above forms, Carlson (1995) has postulated that there are six common themes that are obsessed about. Later, Carlson (1998) hypothesised that these were only more popular because of their importance in society's social agenda. Firstly, *contamination* – frequently of the hands – makes the subject believe that they are 'dirty' and can lead to compulsive washing behaviour. *Orderliness* dictates that the subject must keep their property in a certain place, or in a certain pre-ordained manner, with severe distress arising if this is interrupted. *Illness* as a theme can be closely related to contamination, as the patient becomes convinced that they have contracted a specific disease, often from their contamination. *Aggressive actions* are often realised by impulses to shout obscenities or to cause physical harm to other

people or objects. *Religious* obsessions are often sacrilegious in nature, with crises of faith and distress about the validity of Church rituals being found here. Finally, *sexual* obsessions take the form of practices or images that the patient becomes disturbed by.

Panskepp (1998) notes that OCD is not the only psychological dysfunction that exhibits symptoms of obsessional neurosis. True obsession must be distinguished from 'pusedo-obsessive' symptoms of anxious or depressed subjects, the frequently recurring thoughts that accompany sexual deviancy or drug misuse, nor even the everyday concerns of psychologically 'normal' people. Panskepp (1998) postulated that the major difference between obsessional neurosis and OCD is 'resistance'. This has been defined as feeling a refusal to accept their obsessions, marking OCD subjects apart from individuals with a delusional disorder. It must be noted that this resistance can decrease with time, but the symptoms are usually so pronounced that a diagnosis has already been made by this time (Panskepp, 1998).

Compulsions are closely related to obsessions, and often the connection between the compulsion and the obsession is quite obvious; a classic example has already been touched upon, with the contamination obsession subject often having to wash their hands (this is no new phenomena – Shakespeare's Lady Macbeth was suffering from this very syndrome, along with obsessional thoughts, back in the late 16th Century!). However, Carlson (1995) pointed out that the subject themselves may have no idea of the link between the obsession and the compulsion, with one particular religious obsessionalist subject having a cleaning ritual. Again, Carlson (1995) postulated several common rituals and compulsions observable in OCD subjects. *Checking* rituals, linked to orderliness often make the subject order their belongings in a certain manner; *dressing* rituals as similar in nature, with clothes having to be put on and/or taken off in a certain order or manner; *counting* rituals force the subject to count in batches of a number or divisions of a number (interestingly, most often an integer, or whole, number); *cleaning* rituals whereby the compulsion is to make the subject wash their hands every time they remember they are 'dirty'; and *touching* rituals, in which the subject must touch certain

classes of objects a certain number of times – this is generally only found in juveniles (Carlson 1998).

Concluding the purely descriptional part of the original question, Sims (1988) noted that if an OCD subject's particular ritual is interrupted, they will frequently restart the set of actions from the beginning, whilst acknowledging that this may be irrational. Even after doing so, they may still express doubts over the effectiveness of the completed ritual, possibly leading to further repetitions. Panskepp (1998) also observed that if the subject either voluntarily resists performing the ritual, or is prevented from doing so, anxiety will be formed. The irony of the situation comes from the fact that the performing of the compulsive ritual will relieve the anxiety of the obsession, but only serves to reinforce the long-term obsessive behaviour – the treatment is, in a manner of speaking, addictive.

Moving on to the treatment of OCD, treatment can be based on two separate methods: therapy-based and drug-based. Treating subjects with OCD poses an immediate problem in that often the patient is aware that their actions are illogical, and thus are hidden from their social peers, in the belief that they are suffering from a much more severe slowly-progressive mental illness (Kalat, 1998). In order to reverse the effects of the disorder, this must be tackled firstly, by informing and reassuring the patient of the nature of the malady (Kalat, 1998). The patient's social peer group should be informed of the issue, as the very social nature of the disorder means that the subject is 'cured', more often than not, in the field, away from the laboratory or hospital setting (Kalat 1998). This can, however, raise the inevitable ethical question of whether to act in the best interests of the patient, if they do not want their peers to be informed. A successful experiment method employed by Forbes (1978; cited in Gleitman et al., 1999) is to encourage their peers to aid the subject not to complete the compelled task. Methods of avoiding situations where the patient feels strong impulses should be raised, as well as methods of dealing with any anxiety that may be felt when not acting on their compulsions. With this method, Forbes' test group was able to have a 55% success rate of significantly reducing their symptoms when revisited four years later, compared to the control group's 20%, and a control group – receiving drug therapy – achieving just under 40%.

Behaviour therapy can also be employed, through which control techniques are taught to the subjects, but, as will be seen, these are of limited success when tried alone, and can only be really valuable when used in conjunction with drug therapies. There is a further group of subjects who do not show any compulsions, merely strong obsessions (Gleitman et al., 1999). These patients are often taught negative feedback routines, such as self-inducing a sharp pain when obsessional thought is realised. Again, this has limited value if not accompanied by the 'helping hand' of drug therapy. Simeon et al. (1992) found that extreme cases involving self-mutilation obsessions could only be realistically treated with drug therapies, as often mere techniques were often not enough to override the quite strongly reinforced feedback systems already in place; behavioural techniques were often found to be counter-productive, as the pain of mutilation was assimilated in the same way, wherever the site or 'quality' of the pain.

When considering a drug therapy, all that needs to be considered is that the desired result of the course should be to first do no harm, and then to look to break some aspect of the obsessional compulsive circuit, at any point. Looking at the drug therapies available, it can be seen that there are three distinct categories of drugs which are able to reduce the symptoms of OCD: *anxiolytics*, which block anxiety circuits XXX; *antidepressants*, which allow for increased activity of the serotonergic synapses, hence inhibiting aggressive and compulsive actions (Carlson 1998); and *5HT-uptake blockers*, which seek to block the neurotransmitter 5-HT. It is these last class of drugs that shall be focused on first.

Neurotransmitters serve "either to activate or prevent the 'firing' of downstream neurons" (Berman, Tracy & Coccaro, 1997). 5-HT is a neurotransmitter that is thought to have some influence on compulsive and obsessional behaviour. Coccaro asserts that, in general, 5-HT serves to modulate or constrain ongoing behaviour, preventing extreme behaviour, so it follows that a deficiency of 5-HT or a similar substance could increase a subject's tendency towards extreme behaviours, such as arson, suicide or extreme obsessions – an assumption, taken from Coccaro, will be employed here; in that

aggressive circuits can be viewed as employing the same circuits as obsessional circuits, providing a link to our OCD view (Coccaro, 1992). 5-hydroxyindoleacetic acid (5-HIAA) is a major metabolite of 5-HT, which can be found in cerebrospinal fluid, showing that the density of 5-HIAA can be an indicator of the level of serotonergic activity. Higley et al (1996) conducted a controlled experiment where the levels of 5-HIAA of rhesus monkeys were recorded, and their behaviour objectively noted. A link was established between monkeys with depressed lower levels of 5-HIAA and a pattern of risk-taking (more compulsive behaviours, as well as aggressive behaviour towards larger, older monkeys). A follow up study four years later showed that the survival rates of the higher levelled 5-HIAA monkeys was still at 100%; however, the lower, more (generally) aggressive monkeys had a mortality rate of 54% - that is, 46% of the monkeys had died. Similarly, Sidou (cited in Panskepp, 1998) discovered that mice born without 5-HT_{1B} receptors developed more compulsional mannerisms, often repeating the first test's tasks again and again, instead of attempting a new task. This all suggests that some animals, at least, with a deficiency of 5-HT – or a similar neurotransmitter – show more compulsive, and possibly obsessional, behaviour of this type.

A study by Simeon et al. (1992) showed that the levels of 5-HT in self-mutilating subjects was not particularly different from control subjects. Again, this could be countered by regarding self-mutilation not as an obsessional action, but one of a thousand others, such another, separate aggression circuit. Indeed, Berman, Tracy and Coccaro (1997) pointed out potential flaws with Simeon et al.'s subject sizes possibly being too limited, their comparison groups not being controlled correctly, and there being methodological issues with the experiments' systems. Another neurotransmitter that is widely thought to affect aggression, and hence obsessive action is norepinephrine (NE). Gerra et al. (1997) conducted an experiment in which the main metabolite of NE, 3-methoxy-4-hydroxyphenylglycol (MHPG) was recorded in the cerebrospinal fluid of men who exhibited aggression within the normal range. It was found that the subjects with high-normal obsession had higher levels of NE than the men with low-normal obsession. It was postulated that NE modulates the quantity and qualities of obsessive states,

through its stimulatory effects on testosterone secretion; however, it was noted that obsession might cause an aspecific anxiety condition that could elevate NE levels.

The 5-HT uptake blockers – such as *clomipramine*, *fluvoxamine* and *fluoxetine* – have considerable effectiveness; however, high doses are required, especially in the case of clomipramine, the most common prescribed OCD-treatment drug. This drug, in particular, has several drawbacks: results most often take up to six weeks to start appearing, and remissions are common. To conclude, the best method of treatment is using some method of avoidance of obsessive situations, along with counselling, and a controlled OCD-drug programme, with the medication dosage being reduced in stages, to allow for increase if remission occurs.

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