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Reading About . . .

Obsessive–Compulsive Disorder

Obsessive–compulsive disorder (OCD) has recently undergone a dramatic change in status. Once regarded as a rare example of the neuroses, it now occupies a central position in contemporary psychiatry. The reasons for this renaissance in interest are relatively easy to describe. Firstly, results from the National Institute of Mental Health Epidemiological Catchment Area (ECA) survey indicated that the lifetime prevalence of OCD was 2.5% (1 in 40 people) and the 6-month point prevalence was 1.5%, making it the fourth most common psychiatric disorder in the US (Myers *et al*, 1984; Robins *et al*, 1984; Karno *et al*, 1988). If these figures are applicable to the UK, there may be up to 1 million sufferers. Secondly, the therapeutic efficacy of the selective serotonin reuptake inhibitors (SSRIs) and consistent findings from a number of neuroimaging investigations have stimulated interest in understanding the biological substrates of OCD. Finally, the traditional behavioural account of OCD has been elaborated, with greater emphasis given to cognition and cognitive processes; this revised anatomy of obsessions has, predictably, stimulated the development of specific cognitive therapy strategies.

General texts

The most comprehensive text currently available on OCD is *Obsessive–Compulsive Disorders; Theory and Management* (Jenike *et al*, 1990). This is an edited volume containing a wide range of contributions covering virtually every aspect of OCD from family therapy to psychosurgery. For those particularly interested in biological aspects of OCD, *The Psychobiology of Obsessive–Compulsive Disorder* (Zohar *et al*, 1991) is highly recommended. Again, this is an edited volume containing contributions from key figures in the field. *Obsessions and Compulsions* (Rachman & Hodgson, 1980) is ostensibly a book concerned with behavioural theory and behaviour therapy; however, it embraces a number of much broader issues, and in spite of its publication date remains essential reading. *Treatment of Obsessive Compulsive Disorder* (Steketee, 1993), is without doubt the most up-to-date and comprehensive psychological treatment manual. It contains extremely well-written sections on assessment, exposure, imaginal exposure, response prevention, managing complications, and maintaining treatment gains. A number of assessment instruments are reproduced in the Appendices; these include the excellent Yale-Brown Obsessive–Compulsive Scale (Goodman *et al*, 1989*b*,*c*), and relatively new cognitive measures such as the Obsessive Thoughts Checklist (Bouvard *et al*, 1989) and the Belief Inventory (Freeston *et al*, 1993).

Although OCD arising in childhood has been recognised since the 19th century, it is only recently that this important topic has received due attention. *Obsessive Compulsive Disorder in Children and Adolescents* (Rapoport, 1989) covers a broad range of issues from the role of the basal ganglia to the influence of cultural variables such as religion. In addition to the above, it would be remiss to omit Freud's "Notes Upon a Case of Obsessional Neurosis" (1909). Irrespective of the validity of the psychodynamic theory of OCD, Freud's clinical observations were unerring in their accuracy, and several of his suggestions have a remarkably contemporary ring.

The role of serotonin

There are several lines of evidence that suggest the presence of a specific serotonin metabolism abnormality in OCD. Potent serotonin reuptake inhibitors appear to have a specific anti-obsessional effect.

As early as 1968, Renyghe de Voxrie reported that the tricyclic antidepressant clomipramine, also a potent serotonin reuptake inhibitor, reduces obsessional symptoms. Since that time, numerous studies have been undertaken showing the therapeutic efficacy of 'serotonin' drugs with respect to OCD. Interest has focused on *clomipramine*

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(Neziroglu, 1979; Thoren *et al*, 1980*a*; Ananth *et al*, 1981; Mavissakalian *et al*, 1985; Volavaka *et al*, 1985; Zohar & Insel, 1986; Marks *et al*, 1988; Pato *et al*, 1988; Jenike *et al*, 1989*a*; Greist *et al*, 1990; Katz *et al*, 1990; Mavissakalian *et al*, 1990), *fluoxetine* (Fontaine & Chouinard, 1985; Turner *et al*, 1988; Jenike *et al*, 1989*b*; Markovitz *et al*, 1990) and *fluvoxamine* (Perse *et al*, 1987; Price *et al*, 1987; Cottreaux *et al*, 1989; Goodman *et al*, 1989*a*, 1990; Jenike *et al*, 1990*b*). The precise mechanism of action remains unclear, but a decrease in responsiveness to endogenous serotonin seems likely after long-term administration (Insel & Winslow, 1990).

In spite of the above, it is unlikely that treatment efficacy can be attributed solely to regulation of the serotonergic system. Jenike *et al* (1990*a*) examined data from several controlled and open trials of the various SSRIs and conducted a meta-analysis to determine effect size. Calculations showed that clomipramine was the most effective, followed by fluoxetine, fluvoxamine, and sertraline. It is interesting to note that the order of decreasing effectiveness is inversely related to the selectivity of the medication for serotonin reuptake inhibition.

Three classes of investigation have sought to demonstrate a specific abnormality in the serotonergic system of untreated OCD patients employing more direct methodologies: studies of blood serotonin (Yaryura-Tobias & Bhagavan, 1977; Flament *et al*, 1987); studies of cerebrospinal fluid concentrations of the primary serotonin metabolite 5-hydroxyindoleacetic acid (Thoren *et al*, 1980*b*; Insel *et al*, 1985); and a challenge strategy employing the serotonin agonist chlorophenylpiperazine (Zohar *et al*, 1987). The first of these methodologies has yielded consistent results, however, the latter methodologies providing more convincing evidence in support of the serotonin hypothesis.

Neuroimaging and frontostriatal theories

The strongest evidence for a biological substrate of OCD has been derived from brain imaging studies (Behar *et al*, 1984; Luxenberg *et al*, 1988; Baxter *et al*, 1988; Swedo *et al*, 1989; Nordhal *et al*, 1989; Martinot *et al*, 1990; Machlin *et al*, 1991; Sawle *et al*, 1991; Rubin *et al*, 1992; McGuire *et al*, 1994). Although some results have been inconclusive or inconsistent, there is a growing consensus that a fronto-striatal abnormality is present in OCD.

Perhaps the most compelling evidence favouring the fronto-striatal hypothesis is derived from studies that show the resolution of regional abnormalities after treatment (Benkelfat *et al*, 1990; Hoehn-Saric *et al*, 1991; Baxter *et al*, 1992; Swedo *et al*, 1992). The Baxter *et al* (1992) study serves as an excellent example, as two treatment modalities were employed; medication (fluoxetine) or behavioural therapy. After treatment, blood flow in the head of the right caudate nucleus was significantly lower than pretreatment values in patients who responded to both drug and behaviour therapy. Non-responders showed no change. The percentage change in OCD symptom ratings correlated significantly with the right caudate change with drug therapy, and a trend ($P=0.09$) was observed with respect to behaviour therapy. When all responders were grouped together, right orbital cortex metabolism correlated significantly with ipsilateral caudate and thalamus metabolism before treatment, but not after. Moreover, the differences before and after treatment were significant.

Cognition and cognitive neuropsychology

Cognitive neuropsychology

Increasing interest in the biological substrates of OCD has been complemented by the publication of several studies seeking to investigate the neuropsychological correlates of OCD. The most consistent findings from this literature suggest the presence of amnestic deficits, particularly with respect to nonverbal memory and memory for actions (Sher *et al*, 1983, 1984, 1989; Cox *et al*, 1989; Hollander *et al*, 1990; Martinot *et al*, 1990; Boone *et al*, 1991; Zielinski *et al*, 1991; Christensen *et al*, 1992). In addition to the above, there is modest evidence to suggest that patients with OCD perform poorly on tests sensitive to frontal lobe dysfunction; in particular, tests that detect difficulties shifting set (Harvey, 1987; Head *et al*, 1989; Cox *et al*, 1989; Christensen *et al*, 1992; Behar *et al*, 1984).

Cognition and cognitive therapy

Behaviour therapy remains the most effective and thoroughly evaluated psychological treatment of OCD. As suggested above, Steketee's (1993) *Treatment of Obsessive Compulsive Disorder* is highly recommended; however, for the practitioner interested in cognitive therapy, some recent theoretical and applied advances are worthy of consideration.

Intrusive thoughts are now recognised as a universal phenomenon (Rachman & de Silva, 1978; Salkovskis & Harrison, 1984). 'Appraisal' theories of OCD (McFall & Wollershein, 1978; Salkovskis, 1985) suggest that 'normal' intrusive thoughts lead

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to obsessional disturbance when the individual responds to their occurrence with a negative evaluation. The ultimate determinant of this evaluative process is the individual's belief system, the elements of which correspond to Beck's "dysfunctional assumptions" in the context of cognitive therapy (Beck *et al*, 1979). 'Cognitive' theories of OCD also stress the importance of counterproductive thought control strategies in the maintenance of symptoms. Indeed, the paradoxical effects of attempted thought suppression have received considerable interest (Wegner, 1989). Recent work in this field has also emphasised the importance of constructs such as inflated responsibility, guilt, and the psychological fusion of thought and action (Rachman, 1993; Tallis, 1994).

Advances in theory have been complemented by several advances in the treatment of OCD from a cognitive perspective (Salkovskis, 1989; van Oppen & Arntz, 1994). Cognitive techniques can be used to improve outcome with respect to behaviour therapy, or can be used independently to modify abnormal risk assessment and beliefs about responsibility. A 'cognitive therapy' of a different kind is reported by Tallis (1993), involving the use of artificial stimuli to increase the distinctiveness of past actions. This technique is particularly applicable to checkers with poor confidence in memory functioning.

Books for patients

There are a number of books that can be recommended to patients. *Obsessive Compulsive Disorder: The Facts* (De Silva & Rachman, 1992) is an informative and easy-to-read introductory text. *Understanding Obsessions and Compulsions: A Self-Help Manual* (Tallis, 1992) is a 'do-it-yourself' cognitive–behavioural treatment guide, which can also be used as part of supervised therapy. *Obsessional Thoughts and Compulsive Behaviour* (Toates, 1990) is an autobiographical work by a distinguished psychologist who suffers from OCD; it makes fascinating reading and includes some very useful advice. Rapoport's (1990) best-selling *The Boy Who Couldn't Stop Washing* is largely concerned with paediatric OCD, and is particularly recommended for the parents of affected children.

Finally, and perhaps more flippantly, there have been numerous historical and cultural figures who have suffered from OCD. Toates (1990) lists Samuel Johnson, Soren Kierkegaard, Hans Christian Andersen, George Borrow, Howard Hughes, and perhaps more contentiously, Woody Allen. To these I would like to add Charles Dickens. For those wishing to approach the phenomenology of OCD from a more entertaining perspective, Peter Ackroyd's (1991) biography, *Dickens*, is a thoroughly good read. The famous author compulsively combed his hair, engaged in checking rituals before writing, often displayed order rituals, was disturbed by dirt, and was excessively superstitious. In spite of these sometimes debilitating symptoms, Dickens maintained a prolific output and established himself as arguably our greatest novelist. A role model if ever there was one.

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