OBSESSIVE-COMPULSIVE DISORDER

A SELECTED ANNOTATED BIBLIOGRAPHY

DIVISION OF MENTAL HEALTH
WORLD HEALTH ORGANIZATION
GENEVA
OBSESSIVE-COMPULSIVE DISORDER
A SELECTED ANNOTATED BIBLIOGRAPHY
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This annotated bibliography consists of 60 carefully selected articles and books published during 1977-1993 which covers the time of a resurgence of interest in Obsessive-Compulsive Disorder (OCD). The document results from an extensive search of all the studies on OCD, as indicated in three major computer accessible literature reference banks, namely, Medline, Psychiatry and PsychLit.

The dominant themes throughout the bibliography are focused on the phenomenological signs and symptoms including studies from different cultural backgrounds (to address cultural issues influencing the form and content of OCD), epidemiological studies (to address demographic issues) and neurobiological studies (to address the current issues on the biological aspects of OCD). An important criterion for including an article in this bibliography was the frequency with which it was reported in the science citation index. However, particular care was taken to include articles reporting on works outside Western Europe and North America.
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INTRODUCTION

Obsessive Compulsive Disorder is defined in both ICD-10 (World Health Organization. The ICD-10 Classification of Mental and Behavioural Disorders. Clinical descriptions and diagnostic guidelines. Geneva, 1992) and DSM III-R (American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorder. Third Edition, Revised. Washington, DC, American Psychiatric Association, 1987) as recurrent intrusive thoughts (obsession) and/or acts or rituals (compulsion) which are unwanted and which cause marked distress and significant interference with personal, occupational or social functioning.

Obsessive Compulsive Disorder is a chronic and disabling illness that is now receiving a great deal of interest both in psychiatry and in the scientific literature in general. OCD is now considered to be a more common psychiatric disorder than previously thought, and new studies have spurred the development of considerable clinical, epidemiological, genetic, and biological research (Rachman et al., 1980; Insel et al., 1984; Mavissakalian et al., 1985; Turet, 1985; Jenike et al., 1986; Pitman et al., 1987; Kanno et al., 1988). In the Epidemiological Catchment Area (ECA) surveys done in the United States, which provided the first large scale information on the prevalence of this disorder (covering more than 18, 500 adult individuals), the lifetime prevalence rate for OCD was unexpectedly high: 1.2 to 2.4%. These rates were 25 to 60 times greater than had been estimated on the basis of data from clinic observations and indicated that OCD is the fourth most common psychiatric disorder following the phobias, substance abuse, and major depression (Karno et al., 1988; Rasmussen et al., 1992). It has about twice the prevalence rate of panic disorder and schizophrenia (Robins, et al., 1984). The results also indicate that 50% of adult patients with a diagnosis of OCD developed pertinent symptoms in childhood or adolescence. This confirms further retrospective accounts that one third (Black, 1974) to one half (Pitres and Regis, 1902) of adult cases have their onset in childhood or adolescence. Moreover, a clinic-based epidemiological study of over 5,000 students age 12-18 found a weighted prevalence of 1.9% (Flament et al., 1988). These findings have also been found in epidemiologic studies in several other countries with diverse cultures (Kheranna, 1988; Hafner et al., 1990; Honjo et al., 1989; Lo, 1967; Mahgoub et al., 1991).

The primary purpose of this annotated bibliography is to point to selected articles and books that would facilitate a rapid and global review of the current issues dealing with obsessive compulsive disorder. It covers the period 1977-1993, the time which has witnessed a great resurgence of interest in OCD. It includes the works of the most widely quoted authors in the scientific literature according to the science citation index. Therefore, the collection is not exhaustive but a result of careful selection from all the studies made on OCD as indicated in the three major computer accessible literature reference banks, namely, Medline, Psychiatry and PsychLit. A more complete bibliographical list (covering the period 1902-1993 and from countries all over the world) of more than 300 pertinent articles and books on OCD is available at WHO's Mental Health Division.

The dominant themes throughout the bibliography include the history, diagnosis and classification, phenomenology, epidemiology, family study, neurobiology, comorbidity and assessment instruments. Although treatment is almost always referred to in the various articles,
it was not used as a criterion in the selection.

In the selection of the themes, emphasis was given to the phenomenological signs and symptoms, including studies from as many different countries as possible (to address cultural issues influencing the form and content of OCD), epidemiological studies (to address demographic issues) and neurobiological studies (to address the current issues on the biological aspects of OCD).

The language composition of the annotations is in English. Original titles of the non-English literature are maintained and their corresponding English translations are provided in parenthesis. Its contents attempt to include the essential facts of the paper, including methods used, results and conclusions, thus enabling the user to gauge the relevance of the paper to his particular interests. Where a specific reference contained its own abstract or summary this was generally edited and incorporated.

Entries are ordered alphabetically according to author. Where authors have more than one entry for a given year, the entries in question are arranged alphabetically according to first letter of the title.

References used in the introduction but not included in the main annotated bibliography:


In this paper the authors present the results of the investigation on the clinical and socio-cultural determinants of the phenomenological aspects of obsessional neurosis. Information were collected using a semi-structured interview from 82 Indian obsessional neurotic patients of a psychiatric clinic. Verbatim records were discussed at the study group's bi-weekly meetings. The study shows that the form of obsessions and compulsions seemed to be affected primarily by intrinsic factors (age, sex, IQ), while their content was affected by extrinsic factors (religion, locality, social class). Subject's age at the onset of illness affected both the form and content of symptoms (e.g., preoccupation with religion or dirt was more frequent in those whose illness started after age 30 years). The data of this study provides a baseline for cross-cultural studies of the phenomenology of obsessional illness.


This study is a 2-year prospective follow-up of a community-based sample of adolescents previously diagnosed as having obsessive compulsive disorder (OCD) or "obsessive compulsive spectrum" disorder. A control sample was also selected for comparison. This was done by clinicians experienced with OCD but blind to prior diagnosis. It was hypothesized that an initial diagnosis of OCD or "other psychiatric disorder with OC features" was most likely to predict a diagnosis of OCD at follow-up. Subclinical OCD data at baseline did not strongly predict continuing psychopathology. A prior diagnosis of obsessive-compulsive personality predicted continued obsessive-compulsive symptoms but its relationship to OCD remains obscure.


This article presents a comprehensive overview of the conceptual history of OCD in France during the 19th century. In the 1850's it became a separate disease, first as a member of the old class of the neuroses, then as a form of psychosis and finally it achieved full clinical and nosological definition as a neurosis proper (in the post 1880s sense). Organic causes were hypothesized after 1860 while psychological hypotheses suggesting that the OCD might result from volitional, intellectual, or emotional impairment predominated after 1890. Personality types and hereditability were dealt with in terms of the degeneration theory.


In this paper 5 cases of obsessive-compulsive disorders diagnosed among a sample of Beninese psychiatric outpatients are reported. This type of report does not support the idea that this disorder is very rare in black Africa. Moreover, it appears that the clinical and epidemiological characteristics are not really different from those described in other continents. The major presenting symptoms included: fear of not staring at someone of the opposite sex, compulsion to remember all trivia, contamination fears and rituals, scrupulosity, and checking doors and drawers.

The most commonly used standardized instruments developed since 1970 to assess obsessive compulsive symptoms are discussed in this article. It appears that relatively little work has been done to evaluate these instruments psychometrically. The authors suggest that further research is needed to establish the value of these instruments before developing new ones.


Gil de la Tourette's syndrome (GTS) is characterized with motor and vocal tics, initiating before 21 years of age, lasting for over a year and are associated with diverse behavioral disorders. The study analyzes features of 12 GTS patients with mean age at the onset of the disease of 12.0 years, while the exact diagnosis was established only after 9.5 years (2-33 years). In 11 out of 12 patients the disease started with motor or vocal tics, while in completely developed clinical picture of GTS the permanently present tics were associated with coprolalia (6 patients), echolalia, copropraxia (in 2 patients, respectively), attention deficits (9 patients), obsessive-compulsive disorders (8 patients). The role of neuroleptic therapy was discussed according to the authors' experience and other reported studies. Haloperidol has shown to have good therapeutic effect in 64% of the treated patients.


In this first part of a review on biological psychiatric aspects of obsessive-compulsive disorder (OCD), a short introduction is given about historical, diagnostic and epidemiological issues concerning OCD. Subsequently pharmacologic treatment studies are discussed. Only serotonin (5-HT) reuptake blockers are proven to be effective. There is accumulating evidence that this therapeutic effect is not due to antidepressant effects. The results of the treatment studies strongly suggests that 5-HT is involved in OCD. CSF studies seem to confirm this. Possibly the therapeutic effect is related with adaptive changes of 5-HT receptors. There is evidence that in a subgroup of OCD patients the dopaminergic system is involved.


In this second part of a review on OCD, challenge-tests are discussed and an overview is given of neuro-imaging studies. Subsequently some hypotheses concerning the pathogenesis of OCD are reviewed. The serotonin (5-HT) agonist metachlorophenylpiperazine (mCPP) was found to lead to an increase in obsessive-compulsive symptoms. These studies revealed a dissociation between the behavioral and the neuroendocrine responses: OCD patients showed a blunted hormonal response compared to controls. Possibly different receptor subtypes are involved. One study is reported with a 5-HT(1a) agonist as a probe. This study lends no support to an involvement of the 5-HT(1a) receptor. Tests with noradrenergic probes showed
unequivocal results. Research on the neuroanatomic substrate of OCD is critically reviewed. PET-scan studies point to a possible role of the (orbite-)frontal cortex and the basal ganglia in OCD.


This study evaluates 41 patients who were admitted to hospital for the first time with a diagnosis of obsessive-compulsive neurosis. Aspects of the phenomenology are reported which presented between the first appearance of obsessive-compulsive symptoms and discharge from the first admission. The mean age for admission was 31.6 years and 68% of the sample were women. The women showed significantly higher incidences of contamination phobia and of compulsive cleaning behaviour than did the men. Cleaning behaviour and avoidance of feared stimuli were the most frequently encountered manifestations of compulsive behaviour.


In a retrospective study the patient histories of 113 children and adolescents who received outpatient (89 cases) or inpatient (24 cases) treatment from 1973 to 1984 in the Department of Child and Adolescent Psychiatry, University of Tubingen with the diagnosis "compulsive neurosis" were examined in terms of the criteria personality development, family structure, frequency of certain forms and contents of compulsory behavior, significance and symbolism of the compulsive behavior within the family dynamics. In addition, a comparison was made with the other patients (n = 8,774) receiving child and adolescent psychiatric treatment during this period. The ratio of boys to girls was 7.3. The average age was 13.8 years in the boys and 12.6 years in the girls. The youngest patient was four years old. Compulsive washing was the predominant compulsive behavior in all age groups. Compulsive fears were most frequently manifested in fears about the mother, followed by poisoning and hypochondriac fears. Compulsive impulses were often found from prepuberty. In the girls they were always directed to killing the mother. The analysis of personality development revealed that there were indications of special features in the anal phase in only three cases. On the other hand, special events of pathoplastic significance were found in half of the patients. In about 33%, anancastic characteristics were present in the parents (eight parents were manifestly subject to compulsive neurosis). Conflict avoidance and ambitious demands on the children concerned were typical in the families. In contrast to the reference population, the compulsively neurotic children and adolescents were of average intelligence, frequently attended higher schools and belonged to a higher social class.


In this paper, twenty-five of 27 patients (93%) of the Hospital International, France who had participated in a study of severe primary obsessive-compulsive disorder with onset in childhood or adolescence, were seen 2-7 years after initial examination (mean, 4.4 years). They were compared to a group of normal controls matched for age, sex and IQ and followed up for the same period. Continued psychopathology was striking for the patients, with only seven (28%), three males and four females, receiving no psychiatric diagnosis at follow-up. Seventeen subjects (68%) still had obsessive-compulsive disorder, twelve patients (48%) had another
psychiatric disorder, most commonly anxiety and/or depression. Neither initial response to clomipramine nor any other baseline variable predicted outcome.


The incidence of obsessive-compulsive disorder (OCD) in patients with Gilles de la Tourette's syndrome (GTS) was assessed with a questionnaire derived from the Leyton Obsessional Inventory, supplemented by additional questions designed to elicit OCD phenomena. The inventory was administered to patients with OCD (11 patients meeting DSM III-R criteria), patients with GTS (30 GTS of all ages from USA and 33 adults from GB), and normal controls (41). The results show that 51% of the patients with GTS had significantly elevated Inventory scores. The frequent occurrence of OCD in GTS suggests that the two disorders may share common neurobiological mechanisms. Furthermore, secondary Touretteism and OCD have been produced by similar clinical disorders, particularly those with basal ganglia dysfunction.


This article presents the results of a brief self-report belief inventory that was developed from a 92-item pool to assess extreme beliefs concerning intrusive thoughts and responsibility, the control of such thoughts and their possible consequences, and the appropriateness of guilt and neutralizing behavior as a response. The inventory was developed sequentially on two nonclinical samples (N = 125, N = 265) to distinguish between neutralizing and nonneutralizing subjects. Initial psychometric data for the final instrument were obtained for two further nonclinical samples (N = 61, N = 50) along with a sample of OCD patients and a matched control group. The instrument showed satisfactory reliability and evidence of criterion, convergent, discriminant, and factorial validity. Finally, data from a heterogeneous outpatient medical sample (N = 299) was used to test the relationship among obsessive-compulsive symptoms, mood state, and beliefs. The implications of these results for contemporary models of obsessive-compulsive disorder are discussed.


In a study involving four raters and 40 patients with OCD at various stages of treatment, interrater reliability for the total Yale Brown Scale score and each of the 10 individual items (a 10-item scale rated from 0 for no symptoms to 4 for extreme symptoms) demonstrated with Cronbach's alpha coefficient, the authors found that the Yale-Brown Scale is a reliable instrument for measuring the severity of illness in patients with obsessive-compulsive disorder with a range of severity and types of obsessive-compulsive symptoms. The Yale-Brown Obsessive Compulsive Scale was designed to remedy the problems of existing rating scales by providing a specific measure of the severity of symptoms of obsessive-compulsive disorder that is not influenced by the type of obsessions or compulsions present.

In this article, the authors present the validity of the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) and its sensitivity to change. Convergent and discriminant validity were examined in baseline ratings from three cohorts of patients with obsessive-compulsive disorder (N = 81). The total Yale-Brown Scale score was significantly correlated with two independent global measures of obsessive-compulsive disorder, namely, CGI-OCS (Clinical Global Impression-Obsessive Compulsive Scale) and NIMH-OC (National Institute of Mental Health Global Obsessive Compulsive Scale). Convergence of the Y-BOCS with a third OCD scale, the MOCI (Maudsley Obsessional Compulsive Inventory) was less consistent across samples. For discriminant validity, Y-BOCS score was weakly correlated with measures of depression (Hamilton Rating Scale for Depression-HAM-D) and of anxiety (Hamilton Rating Scale for Anxiety-HAM-A) in patients with obsessive-compulsive disorder with minimal secondary symptoms. Results from a previously reported placebo-controlled trial of fluvoxamine in 42 patients with OCD showed that the Y-BOCS was sensitive to drug-induced changes and that reductions in Y-BOCS scores specifically reflected improvement in OCD symptoms. The studies undertaken indicate that the 10-item Yale-Brown Scale is a reliable and valid instrument for assessing obsessive-compulsive disorder symptom severity and that it is suitable as an outcome measure in drug trials of obsessive-compulsive disorder.


This study compared 25 children with Tourette's disorder with a group of 25 children of similar age, sex, race, socioeconomic status and school achievement with respect to OCD and OCS (Obsessive-Compulsive Symptoms). Data from the children, their parents, and teachers were gathered using a structured diagnostic interview, a parent and teacher questionnaire and a children's obsessional inventory. Significantly, more children in the Tourette's group were diagnosed as having OCD. Parents and teachers reported Tourette's children as having significantly more OCD. Tourette's children diagnosed as OCD reported significantly more obsessive symptomatology than the comparison group.


The study data were obtained from a questionnaire survey of a South Australian community support group for obsessive-compulsive disorder (OCD) judged to meet DSM-III-R criteria. The clinical and demographic characteristics of the respondents were very similar to those of previously reported clinical populations. Mean age at onset of OCD was 18 years and mean duration 17 years. 55% of respondents rated their current OCD as extremely or very severe. Seventy-seven percent had received psychiatric treatment (mean 55 occasions) and 47% had attended clinical psychologists or professional counsellors (mean 20 occasions). Those who reported prominent fears of losing control of motor behaviours had received a significant excess of outpatient and inpatient psychiatric treatment. Most respondents reported the presence of all 4 identified components of OCD, of which the obsession/compulsion component was central. Levels of OCD correlated strongly with levels of overall psychopathology, and fertility rates were significantly reduced in those patients who reported the most symptoms.

This study investigates point prevalence and demographic data that pertain to three ritual-based forms of OCD in a sample of the adult general population (250 males and 247 females) of the greater St. Louis area using a structured interview according to DSM-III criteria. The overall prevalence rate of OCD was 2.8%. The most prevalent form of OCD involved checking (1.6%), followed by a miscellaneous category that included repeating, counting and collecting rituals (1.0%) and, finally, washing compulsions (1.8%). Subjects with OCD did not differ demographically from the rest of the sample except that they were more likely to live in the city. Results indicate that OCD is more prevalent than previously supposed and that checking compulsions may be the most common form of ritual in nonclinical samples.


This paper investigates whether selected religion-related factors would differentiate between 86 patients (aged 10-79 years) with OCD, 73 patients (aged 16-74 years) with panic disorder, and 292 patients (aged 12-80 years) with other psychiatric (nonanxiety) disorders. A standard history questionnaire was used to obtain information from subjects concerning religion of origin, involvement in religious activities, religious conflict, and perceived religiosity of parents. The percentage of subjects who reported experiencing religious conflict was significantly higher for the OCD group than for the other 2 groups. Associations between Catholicism and OCD and between Protestantism and panic disorder (PD) were also suggested.


This article reviews and discusses some of the conceptual and methodological issues associated with clinical, familial, neuropsychiatric and biological studies of OCD to elucidate the association among tics, obsessive-compulsive disorder and Tourette's Syndrome. Areas of conceptual controversy in the differentiation of tics, impulsions and compulsions are discussed. Confusing aspects of differential diagnosis are explored and the relationship of diagnostic issues to clinical and familial studies are highlighted.


The study investigates 61 patients (38 boys and 23 girls) under 18 years of age with obsessive-compulsive symptoms seen in the Department of Psychiatry, Nagoya University Hospital, Japan, from 1982 until 1986. In this period, a total of 1293 patients under 18 years of age visited the clinic. The percentage of patients with obsessive-compulsive symptoms was 5%. The earliest age of onset was at age 3 years, and the average age of onset was 11.6 years. The authors found no particular tendency in terms of the number of siblings and the birth order of the patients. Obsessive traits were the fundamental personality traits of patients. Moreover, according to the other characteristics of personality, the patients were subdivided into schizotypic, viscous temperament, and cyclothymic. Parents of the patients were more apt than usual to have obsessive-compulsive personalities. Psychiatric disturbances and occupations were also investigated. Incidents related to school situations commonly triggered obsessive-compulsive symptoms. The most frequently noted obsessive thought
was dirt phobia, and the most common compulsive behaviour was washing. School refusal and violence at home were especially common as associated symptoms of OCS. The authors also describe the treatment regimen and the outcomes of the patients.


The author presents a working model which helps resolve issues relating to our understanding of OCD. Early descriptions focused on different aspects of this syndrome, reflecting the prevailing culture of the observer. English explanations stressed religious aspects and a relationship to melancholy. French phenomenologists emphasized the importance of doubt and loss of will. The German view focused on the irrational nature of the thoughts, finding a link to psychosis. Currently, OCD is considered an anxiety disorder in which either obsessions or compulsions contribute to significant distress or interference with functioning. However, obsessions and compulsions are also part of normal mental life. Though the model is clearly oversimplified, it proves to be very useful as a first step towards understanding the relationship between normal obsessions and compulsions and those that lead to interference and distress.


This book provides an overview of the current state of knowledge of OCD. Part one includes chapters providing a descriptive picture of the clinical features of OCD such as its classic forms as well as its presentation at different times in the life cycle, for example, in childhood or during pregnancy. This section also describes disorders that are not classic OCD but are commonly encountered in OCD clinics and appear to be closely related, such as Tourette's syndrome, trichotillomania and others. The section also reviews the current knowledge of the onset and course of OCD and its relationship to a variety of personality disorders. Part two, reviews the rapid growth of theories about the mechanisms and causes of this disorder as well as the promising technologies recently applied to OCD such as neuroimaging, neuropsychological testing, familial studies and Tourette's syndrome, and attempts to develop an animal model for this disorder. Part three includes detailed reviews of treatments proven effective in OCD. The final section, "Patient and Clinical Management," includes step-by-step information on running an OCD clinic, including considerations in providing family treatment. It also provides an insightful look forward to future directions of research in OCD as well as an appendices reviewing the history of the OCD Foundation and copies of rating scales and questionnaires.


This paper reports the epidemiology of obsessive-compulsive disorder in five US communities among more than 18,500 persons in residential settings as part of the NIMH-sponsored Epidemiologic Catchment Area (ECA) program. The result indicated that the lifetime prevalence rates ranged from 1.9% to 3.3% across the five Epidemiologic catchment sites for OCD diagnosed without DSM-III exclusions and 1.2% to 2.4% with such exclusions. These rates are about 25 to 60 times greater than had been estimated on the basis of previous studies of clinical populations. The result also showed that OCD is common for both sexes and is more prevalent among the young, divorced or separated and unemployed. This study provides the first large scale information on the prevalence of OCD.

This study describes two patients in whom an OCD began just after the onset of epilepsy. Neurological factors in OCD are then reviewed, and clinical reports of patients with OCD and co-existing brain pathology, EEG abnormalities, Computed Tomography (CT) scan changes and electrical stimulation of the brain are discussed. It is concluded that neurological factors are present in only a minority of cases of OCD. According to the authors, successful behavioural treatment is independent of such factors.


761 obsessions were recorded from 410 cases of obsessive-compulsive neurosis seen over a 10-year period in an Indian psychiatric outpatient department. The obsessions were analyzed according to form and content: 6 categories of form and 11 categories of content were delineated. The investigation reports that fear of contamination was the single most common theme, followed by thoughts of daily activities, thoughts about the past, and fears of harm.


This paper presents a system of classification of compulsive phenomena occurring in obsessive compulsive disorder based on case files of 270 patients. The compulsions observed fit different categories of form (i.e., ritual, checking, avoiding, repeating) and content (e.g., washing, counting, touching, embarrassing behaviour).


This paper presents a comparative study on the reliability and validity of Yale-Brown OC Scale and Leyton Obsessional Inventory. Twenty-eight nondepressed patients with DSM-III obsessive-compulsive disorder completed both the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) and the Leyton Obsessional Inventory (LOI) once a week for a total of three times throughout the 14-week clomipramine trial. The reliabilities of both instruments were measured using the three repeated test scores from each subject. In general, the correlations between the Y-BOCS change scores and the Global Ratings were significantly greater than between the LOI and the Global scores. The Y-BOCS was found to be more reliable than the LOI. Correlations were also obtained for the baseline period between the Y-BOCS and Leyton scores to measure their validity. At the end of a 14-week trial of clomipramine, the Y-BOCS and the LOI were again administered along with a Physician and Patient Global Rating of change. In general, the correlations between the Y-BOCS change scores and the Global Ratings were significantly greater than between the LOI and the Global Ratings. This last finding suggests that the Y-BOCS is a better measure of clinical change than is the LOI.

This paper explores a possible relationship between trichotillomania, (TTM) (compulsive hair pulling) and Obsessive Compulsive Disorder (OCD). 65 out of 69 (94%) first degree relatives of 16 female probands (aged 16-44 years) with severe chronic TTM were compared with two control groups for OCD and for TTM. Three (19%) of the 16 TTM probands had at least one first degree relative with a lifetime history of OCD, and there was an age corrected rate of 6.4% of first degree relatives with OCD. No relative in control group (A) met criteria for OCD. There was a trend (Fishers exact p = .07, two tailed) for a higher rate (age corrected) of OCD in TTM families. These pilot data are consistent with the concept of a spectrum of obsessive-compulsive disorders which includes TTM and other pathological grooming behaviours.


The symptoms of OCD have been viewed as extreme variants of normal developmental rituals and superstition/ciousness. Difference in timing, content, and severity argue against this continuum. In a systematic comparison of 38 children with severe primary OCD and 22 matched normal controls, parents were interviewed about their child's early-development rituals and current superstitions. Children were asked about superstitious beliefs. Children with OCD did not differ significantly from controls in number or type of superstitions. However, parents of the OCD children reported significantly more "marked" patterns of early ritualistic behaviour than did parents of normal controls. When behaviours resembling primary OCD symptoms were excluded, other rituals did not differ leaving open the possibility that such behaviours were early manifestations of the disorder. It is pointed out that only a prospective longitudinal study with large community-based populations can determine whether these results reflect preclinical OCD or are an artifact of biased recall.


This study examines a hypothesized etiologic relationship between Tourette's disorder and obsessive-compulsive disorder. Fifty-four children who had initially participated in treatment protocols for obsessive-compulsive disorder (Tourette's disorder was an exclusionary criterion) were reevaluated 2-7 years later with a neurological examination and a structured interview to establish the presence or absence of tics and Tourette's disorder. The children's first-degree relatives (N=1719) were also screened for tic disorders. At baseline, 57% (N=31) of the patients had lifetime histories of tics. At follow-up, 59% (N=32) had lifetime histories of tics; eight of these (all males) met the criteria for Tourette's disorder (six had developed the disorder, and two it could be argued in retrospect, might have met the criteria at baseline). The patients with lifetime histories of tics had greater anxiety, a higher ratio of CSF 5-hydroxyindoleacetic acid to homovanillic acid, and a younger age at onset of obsessive-compulsive disorder. Of the first-degree relatives, 1.8% (N=3) had Tourette's disorder, and 14% (N=24) had a tic disorder. Except for their earlier age at onset of obsessive-compulsive disorder, the patients with Tourette's disorder were indistinguishable from those without. The apparent high rate of tics and Tourette's disorder in the subjects and their relatives is consistent with the hypothesis that in some cases, obsessive-compulsive disorder and Tourette's disorder may be alternative manifestations of the same underlying illness.

This article reviews the predominant psychobiological hypotheses regarding the pathophysiology of obsessive-compulsive disorder (OCD). Recent neuroanatomical, pharmacological, and ethological studies indicate a complex perceptual and cognitive role for the basal ganglia, particularly the striatum and the pallidum, in addition to the well-established motor functions. Obsessive-compulsive symptoms in syndromes with extrapyramidal-motor dysfunction, such as Gilles de la Tourette syndrome or Chorea minor (Sydenham), response to specific pharmacotherapy, behavioural therapy, and psychosurgery, as well as findings derived from brain imaging studies including positron emission tomography (PET) support the view of a frontal cortex/basal ganglia dysfunction in OCD. In addition, growing evidence suggests that potent inhibitors of 5-HT reuptake and other 5-HT subsystem-selective agents, such as the azapirones with partial agonist properties at the 5-HT1A receptor, are effective in OCD not only has improved the therapeutically perspective but may also reveal clues to the aetopathogenesis of OCD. Much of this evidence has resulted from the discovery of multiple receptors and signal transduction pathways for 5-HT and from experiments relating the action of 5-HT receptor-selective agents to discrete effects in different subsystems. Among these 5-HT subsystems the 5-HT1D and 5-HT1A receptor-effector system complex appears to play a central role in the pathophysiology of OCD symptoms and the mechanism of action of antischizophrenic drugs. Recent psychoneurobiological findings are reviewed briefly and evaluated in the context of the 5-HT and basal ganglia hypothesis of OCD.


This article points to the importance of standardized methods of assessment of obsessive phenomena in patients in general medicine. In its previous studies, the authors documented obsessive phenomena, assessed with Present State Examination (PSE) criteria, in more than one third of patients diagnosed of depression. Consecutive studies in different medical samples have replicated those preliminary findings. In the last one, close to one quarter of first day consecutive patients seen in an internal medicine out-patient clinic, and more than three quarters of the ones diagnosed of either anxiety or depression with Research Diagnostic Criteria, had obsessive symptoms as defined by the Clinical Interview Schedule (CIS). Obsessive symptoms, however, have also been observed in individuals considered to be "non-cases" and tend to follow a "continuum" distribution, rather than a categorical one. They tend to be more frequent in cases diagnosed as neurotic or reactive, rather than in the endogenous ones and to correlate with neuroticism measured by the EPQ-A. Particularly among out-patients, where the psychopathology seemed to be related to the absence of demonstrable somatic illness and probably to the presence of social distress, the hypothesis could be advanced that obsessive symptoms, among other psychopathological phenomena, are quantitative reactions to environmental situations in predisposed individuals. Nevertheless, in samples such as the endocrine in-patients, correlations have also been demonstrated between obsessive or other psychopathological symptoms and biological variables such as hormonal levels.


This study provides evidence for a biological basis for severe psychiatric disorders. The authors used quantitative X-ray computed tomography (CT) to analyze the brain volume of 10 male patients with onset of
severe primary obsessive-compulsive disorder before age 18 and 10 healthy male control subjects. Caudate nucleus volume in the patients with obsessive-compulsive disorder was significantly less than that of control subjects, but lenticular nuclei, third ventricle, and lateral ventricle volumes did not differ between these two groups, and no abnormal asymmetry of bilateral structures was detected. These findings support other evidence of involvement of the caudate nucleus in obsessive-compulsive disorder. It is suggested that additional research is needed to investigate the nature of basal ganglia-frontal lobe impairment as an etiological feature in OCD.


This paper presents the study on 32 Muslim Saudis (18 women and 14 men, mean age of 26.6) with obsessive-compulsive disorder who met the ICD-9 criteria. The results indicated that compulsive acts (78%) and doubts (66%) were the commonest forms. Religious themes predominated in both the obsessions and compulsions.


This study focuses on the gender-divergent factors in obsessive-compulsive disorder. Among 307 adults with OCD, early onset (age 5-15 years) was more common in men and later onset (age 26-35 years) in women. Early onset was associated with more checking, and late onset with more washing. More women than men had a history of treated depression; 12% of the women but none of the men had a history of anorexia. More women than men were married. Gender-divergent features may reflect differential aetiological factors. The sample resembled others in the literature in its slight overall female preponderance, low rate of marriage and low fertility, onset mainly before age 35 years, chronicity, and common present and past depression.


In this article the authors report the results of a study of 338 biological relatives of 86 TS probands, 21 biologically unrelated relatives of adopted TS probands, and 22 relatives of normal subjects. The 43 first-degree relatives of the adopted TS and normal probands constituted a control sample. The rates of TS, CT, (chronic tics) and OCD in the total sample of biological relatives of TS probands were significantly greater than in the relatives of controls. In addition, the morbidity risks of TS, OCD, and CT were not significantly different in families of probands with OCD when compared to relatives of probands without OCD. These findings provide further evidence that OCD is etiologically related to TS. The article also provides previous studies demonstrating TS as a familial disorder as well as CT and OCD as etiologically related to the syndrome.


This study examines the relationship between TS and OCD (DSM III-R criteria). Data from all first-degree relatives of TS probands were obtained with a semi-structured interview designed to collect information on
the presence of TS, other tic disorders, and neuropsychiatric illnesses during the lifetime of the individual. The rate of OCD among first-degree relatives was significantly increased over estimates from the general population and a control sample of adoptive relatives. The rates of TS, OCD, and chronic multiple tics (CMT) were virtually the same in families of probands without OCD (TS-OCD). Finally, the frequency of OCD without TS of CMT among first-degree relatives was significantly elevated in families of both TS+OCD and TS-OCD probands, suggesting that some forms of OCD may represent an alternative expression of the factors responsible for TS and/or CMT.


This paper provides an excellent summary and commentary of Pierre Janet's classic contribution to the understanding of OCD, Obsessions and Psychasthenia (1903). The author points out that although Janet's work tends to be remembered for its theoretical ideas, most of which have become dated, the most valuable aspect of Obsessions and Psychasthenia is its clinical discoveries. These include the important role played in the disorder by symptoms that are closely related to, but yet cannot properly be called, obsessions and compulsions (the "forced agitation"); the underlying psychasthenic mental state; and the obsessive-compulsive person's specific failure to adapt to reality. The author contends that despite the passage of nearly a century, these observations, and Janet's suggestions regarding treatment, remain the classic work on the topic of OCD.


This article provides an annotated overview of different researches and information derived from epidemiological, pharmacological and clinical descriptive studies, from studies of related disorders and from a large prospective study of children with severe primary obsessive-compulsive disorder ongoing at the NIMH which suggest that the disorder is more common than had been thought and reaffirm intriguing neurological links. These studies have affirmed that from half to one third of adult cases have had their onset by age 15. Moreover, unlike depression and schizophrenia, the disorder appears in virtually identical form in children to that in adults. Questions equally applicable to adults and child patients are: the continuity with normal development and with personality disorder, the nature of the association with other disorders, etiology (with focus on neurobiological components) and long term prognosis, particularly in the light of the newer treatments more widely available.


This article presents the growing evidence from clinical phenomenology, including associated disorders, brain imaging, and neuropharmacologic studies of links between the classic psychiatric syndrome of obsessive-compulsive disorder (OCD) and basal ganglia dysfunction and the serotonin system. It is proposed that dysfunction of basal ganglia-thalamic frontal cortical loops produce symptoms of excessive grooming checking and doubt most common in OCD. A particular compelling animal model has also been found in clinical trials. An ethnologic perspective is being suggested.

This article presents an overview of the classic forms of symptoms of OCD as well as associated disorders as anorexia nervosa and Tourette's syndrome (multiple motor tic disease), epilepsy, Sydenham's chorea, toxic and vascular lesions of the basal ganglia, and postencephalitic Parkinson's disease. About 20% of patients have tics; there is family history of OCD in about 20%. Between one third to half of patients have the onset of these behaviors in childhood or adolescence, in virtually identical form to that seen in adults. Differential diagnoses are also being outlined like schizophrenia, phobic patients, mental retardation, hypochondriasis, etc. Behaviour therapy has been shown to be effective for treatment, particularly for patients who have rituals as their primary symptoms. Selective drug treatment for OCD is pointed out to be one of the major new psychopharmacological advances of this decade.


This article discusses clinical features and phenomenology of obsessive compulsive disorder, including its epidemiology, core syndrome recognition, developmental antecedents, phenomenological subtypes, coexisting disorders, and differential diagnosis. It is concluded that OCD's phenomenologic heterogeneity may be deceiving in that patients with different types of obsessions and compulsions share many common features with regard to demographics, course of illness, family history, and treatment response. The differential diagnosis is often complicated by the high rate of coexisting disorder.


This paper presents and discusses a comprehensive summary of the epidemiology and other disorders and syndromes associated with OCD. Lifetime prevalence of 2% to 3% found in the United States has also been found in epidemiologic studies in several other countries with diverse cultures. This disorder has previously been underestimated due to a number of factors that include patients' reluctance to spontaneously admit to obsessions and compulsions and the omission of screening questions about obsessive compulsive disorder on routine mental status examinations. Depression and other anxiety disorders frequently co-occur with obsessive compulsive disorder, which may contribute to misdiagnosis. Patients with eating disorders, Gilles de la Tourette's syndrome, and schizophrenia have a greater comorbid risk compared with the general population. Differential diagnosis of obsessive compulsive disorder includes generalized anxiety disorder, panic disorder, phobias, compulsive personality disorder, and hypochondriasis. While many of these syndromes are characterized by intrusive thoughts, few have associated rituals. The tics seen in some patients with Tourette's syndrome may be difficult to distinguish from the compulsions seen in obsessive compulsive disorder, and, in fact, there is significant overlap in symptoms between the two disorders. Currently, the impulse control disorders, such as compulsive gambling and the paraphilias, are not considered to be part of obsessive compulsive disorder. Although the phenomenology of obsessive compulsive disorder appears to be quite diverse, with many distinct kinds of obsessions and compulsions, there are three important core features: abnormal risk assessment, pathologic doubt, and incompleteness. These features cut across phenomenological subtypes and may be useful in defining homogeneous subgroups with distinct treatment outcomes.

This paper describes the phenomenology and family history in 21 clinically referred children and adolescents with obsessive compulsive disorder. Each child and family participated in a standard clinical psychiatric assessment. The most frequently reported symptoms were repeating rituals, washing, ordering and arranging, checking, and contamination concerns. Controlling behaviours involving other family members were seen in 57% of the patients. Associated psychopathology was common: 38% received an anxiety disorder diagnosis; 29% received a mood disorder diagnosis; tics were observed in 24%. Fifteen (71%) of the children had a parent with either obsessive compulsive disorder (N = 4) or obsessive-compulsive symptoms (N = 11). The clinical and research implications of these findings are discussed.


The authors present an overview of the studies on the types of psychopathology of Gilles de la Tourette's Syndrome (GTS) since 1889. Although many types of psychopathology have been documented in association with GTS, including depression, anxiety, phobic disorder, hostility and aggression, the author contends that the exact association between these disorders and GTS remains unclear. However, what is becoming increasingly evident is that there is a clear and strong association between obsessional thoughts and behaviours and GTS. An overview of twenty clinical, epidemiological and family/pedigree investigations on this association is presented.

47. **Shapiro AK, Shapiro E.** Evaluation of the reported association of obsessive-compulsive symptoms or disorder with Tourette's disorder. *Comprehensive Psychiatry*, 1992; 33: 152-165.

This review evaluates the evidence reporting an association of obsessive-compulsive symptoms (OCS) and obsessive-compulsive disorder (OCD) with Tourette's syndrome or disorder (TS). Published reports in the literature describing a relationship between OCS-OCD and TS provided the data for the review. The methodological adequacy of the studies is discussed. The authors suggest that to meaningfully evaluate the possible relationship between OCS-OCD and TS it requires development of specific criteria for classification of OCS-OCD-TS symptoms, use of adequate experimental and control samples, blind evaluation, reliable and valid measures of OCS-OCD-TS, and appropriate statistical analysis.


This article reports the results of studies made with two groups: patients with obsessive neurosis who had fallen sick in childhood and adolescence (N=116), and schizophrenics with obsessive syndrome who had fallen sick at the same age, and were at first observed by pedopsychiatrists as patients with the obsessive neurosis (N=28). Dynamic clinical and catamnestic studies of the two groups of the patients have enabled the authors to specify a number of signs supplementing the criteria of differentiating those diseases described in literature. The author points out that characteristics of the obsessive neurosis are signs of perseverance of the "through"
syndrome, i.e., the type of the obsessive syndrome (compulsive, phobic, or mixed compulsive-phobic one) determining this or that clinical variant of the neurosis throughout the whole disease. Patients with schizophrenia show a tendency to a "regressive" time course of the syndrome, i.e., to addition of obsessions corresponding to earlier levels of the psychic response.


This study explores whether an atypical form of obsessional illness can be delineated and separated from the conventional form of obsessive-compulsive neurosis (OCN). From a group of 45 obsessive patients, 8 were selected on the basis of 3 criteria: presence of a severely debilitating main obsessive symptom; bordering on the delusional; no schizophrenic symptoms. Assessment and outcome measures included the Psychiatric Questionnaire, the Leyton Obsessional Inventory, Fear Survey Schedule, and IPAT Self-Analysis Form. Self-assessment forms allowed patients to make social adjustment and neurotic symptom ratings. In a multimodal approach, patients were assigned to behavioural and pharmacological treatments on the basis of severity. Reassessment took place after 50 sessions of therapy. Results of analysis of variance statistics indicated that the atypical group had a more malignant form of illness, with more varied and severe obsessions. A poorer prognosis for the atypical group was indicated by, for example, greater social maladjustment, poor employment records, illness of longer duration showing no remissions despite more courses of treatment, and poor response to treatment throughout. The atypical group manifested fewer characteristic features of OCN (example: fewer precipitating events). On the other hand, schizophrenia was not imputed, although delusion-like experiences in the atypical group suggest a psychotic form of illness. The term 'obsessive psychosis' suggested by Strauss and recently investigated by Weiss et al. and Robinson et al. is proposed for the atypical group. Results are compared with those of other investigators. It is concluded that the delineation of a subgroup of obsessional illness is desirable for research and therapy, since a form of atypical obsessional illness or obsessive psychosis can be differentiated on aetiological, phenomenological and prognostic factors.


The authors report data from 8 Trichotillomania (TM) with a primary DSM III-R diagnosis and 13 OCD patients which suggest important clinical differences between the two groups. They found out that TM patients reported a significantly greater degree of pleasure during hair-pulling than OCD patients reported during performance of ritualistic behaviours. They also observed that TM was accompanied by significantly fewer associated obsessive-compulsive symptoms. It was also shown that the groups differed with regard to other clinical features including anxiety, depression, and personality characteristics.


In this study the authors found four predominating kinds of ritual in a structured interview using a specially devised questionnaire with 45 patients: a) cleaning, b) avoiding c) repeating and d) checking. An association of cleaning rituals with great distress caused to the family was also found, thus confirming other studies. A surprisingly large number of subjects had little or no resistance to carrying out their rituals. The recognition of senselessness of a ritual was a more important criterion than that of resistance. It is proposed that a redefinition of obsessive-compulsive neurosis with less emphasis on resistance as a necessary condition may be appropriate.

This study attempts to document a hypothesized increase in the frequency of the diagnosis of obsessive-compulsive disorder at a large psychiatric teaching hospital and to investigate correlates of this trend. The annual rates of psychiatric discharge diagnoses at the hospital from 1969 to 1990 were reviewed, and the frequency of the diagnosis of obsessive-compulsive disorder was compared with that of paranoid disorders. Correlations were also done on these diagnostic rates and the rates of reports in the literature in the same years on each of these types of disorders and their treatment. The frequency of the diagnosis of obsessive-compulsive disorder, but not paranoid disorders, increased markedly during the 1980s. This increase was associated strongly and selectively with increases in publications about that disorder, particularly reports on drug and behaviour therapy.


This article reviews the clinical presentation and treatment of childhood-onset OCD to familiarize pediatric clinicians with this troublesome disorder. In addition, the neurobiological and etiologic theories of OCD are discussed.


The 20-item Leyton Obsessional Inventory-Child Version was administered to children and adolescents who had Sydenham's chorea (*N* = 23) or rheumatic fever without chorea (*N* = 14). The Sydenham's chorea subjects had significantly more obsessive thoughts and compulsive behaviours and significantly greater interference from these behaviours. Three Sydenham's chorea patients but no rheumatic fever patients had substantial obsessional interference and met criteria for obsessive-compulsive disorder when interviewed by telephone. This suggests that obsessive-compulsive disorder, at least in some patients, may be due to basal ganglia dysfunction.


The authors review the phenomenology of obsessive-compulsive disorder (OCD) in 70 consecutive children and adolescents studied prospectively at the National Institute of Mental Health, Bethesda, Md, between 1977 and 1987. The authors found out that there was a striking similarity between the clinical presentation of OCD in children and in adult patients. Washing, grooming, and checking rituals and/or preoccupation with disease, danger, and doubt account for the great majority of cases. Twenty-five percent of subjects had a first-degree relative with OCD. The fixed content and style of symptoms within and across subjects, and the identical presentation across a wide age range, suggest an ethological model for OCD.

In this study, the relationship between worry and obsessional symptoms is being confirmed. 235 subjects (72 male) completed the Worry Domains Questionnaire (WDQ), a worry Visual Analogue Scale (VAS), a modification of the everyday checking behaviours scale, and the Maudsley Obsessional-Compulsive Inventory (MOCI). The mean age was 33, with a range from 14 to 61. Worry was found to be more consistently associated with checking and doubting, than washing and slowness. It is suggested that worry and obsessional symptoms both occur in response to stress. In addition, it is suggested that worry and checking are functionally similar, and Generalised Anxiety Disorder may represent a 'cognitive' variant of obsessional checking.


This study reviews the symptoms of 61 children and adolescents admitted to the Psychiatric Hospital for Children in Aarhus, Denmark, in the period 1970-1986 fulfilling the DSM-III criteria for obsessive-compulsive disorder. The symptoms were then grouped according to form and content. The most common form of compulsion was rituals seen in 39 of the patients, and the most common compulsive content was washing. The most frequent obsessive content was thoughts about dirt and contamination followed by concern about death, illness and harm. The phenomenological feature of boys and girls was very similar, and only a few significant differences between boys and girls were found. One quarter of the boys and 12.5% of the girls had only obsession, whereas 27.0% of the boys and 37.5% of the girls had only compulsion and no obsession. The number of obsessive/compulsive symptoms was not found to correlate with the time spent each day on the symptom. It is concluded that there do not seem to be any intercultural differences between Denmark, India, and Japan as to the content of obsessive thoughts and compulsive behaviour in children and adolescents.


The authors examine the records of 72 children and adolescents aged 5-18 with a diagnosis of OCD. Mean age of onset was 11 years. Repeating, cleaning and checking were the most common compulsions. Twenty percent of subjects showed obsessions unrelated to compulsions. In 53% of cases stress situations preceded the disorder. Seventy-seven percent of subjects suffered some other psychiatric disorder, lifetime or current, particularly anxiety and affective disorders. The majority (57%) had some first-degree relative with a psychiatric diagnosis. Family conflicts, social withdrawal and poor school performance were also common features.


This review briefly summarizes data concerning diagnosis, phenomenology, and epidemiology of OCD and examines other disorders that closely resemble OCD. In addition, the nosological and treatment implications of these data are discussed. The authors find that OCD is characterized by a focal anxiety point or points (e.g. germs, contamination, safety, etc.) around which the patient experiences intrusive and repetitive obsessions
and by behavioral or cognitive compulsions that reduce the anxiety associated with the obsession. The appearance of these characteristics in other disorders suggest some relation between them and, consequently, the treatment of these disorders may be enhanced by conceptualizing them as OCD "variants".


Using a 2-stage epidemiologic strategy, the authors estimate the lifetime prevalence of selected DSM-III defined psychiatric disorders in a country-wide secondary school population (N=5596). 2564 boys and 2544 girls, ages 14 through 17 years participated in the study. At the extremes of the range, 2.5% (N=100) were aged 13 or younger, while 5.5% (N=260) were 18 or older. Screening tests used in the first stage included items based on DSM-III criteria for eating disorders and panic disorder, as well as the Leyton Obsessional Inventory-Child Version and the Bock Depression Inventory. Based on interviews (n=356) by clinicians in the second stage, the lifetime prevalence of anorexia nervosa was 0.2%; bulimia, 2.5%; panic disorder 0.6%; obsessive-compulsive disorder, 1.9%; major depression, 4.0%; dysthymic disorder, 4.9%; and generalized anxiety disorder, 3.7%.
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