PHENOMENOLOGY OF OBSESSIVE COMPULSIVE DISORDER: A FACTOR ANALYTIC APPROACH

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ABSTRACT

There have been few scientifically rigorous prospective studies which have looked at the phenomenology of obsessions and compulsions in Obsessive Compulsive Disorder (OCD), in the last decade. The current study aims to extend these findings and establish their cross-cultural validity. Two hundred and two consecutive subjects with OCD were evaluated using the Yale Brown Obsessive Compulsive Scale- Symptom Check List and Scale for Assessment of form and content. The data was subjected to Factor analysis with varimax rotation. The results suggest that there are factors which are broadly common to the two scales. The main Factors which emerged were Washers, Checkers, Hoarding and two pure Obsessional Factors. The cross-cultural validity of these factors has been established for an Indian population, and the relevance of specific items between scales has been discussed. The importance of such approaches in understanding etiology, prognosis and treatment of OCD is highlighted.

Key words: Obsessions, Compulsions, OCD, Factors.

Obsessive compulsive disorder (OCD) has come of age from being recognised as due to spiritual causes, to fixation in the anal stage of psychoanalytic theory formulated by Sigmund Freud, to the current concepts of genetics, neurochemical changes and involvement of basal ganglia. Twenty years ago OCD was recognised as a rare condition and interest in it was mainly as a treatment resistant neurosis. However the ECA study (Karno et al., 1998) has recognised OCD as the fourth commonest psychiatric condition.

OCD is a heterogeneous condition which presents with broad range of obsessions and compulsions. Historical attempts at typological classification were not empirically sound (Leckman et al., 1997). There are some reports of cross cultural differences, in the presentation of symptoms in some ultra orthodox populations like Jews in Israel and Muslims in Egypt (Okasha et al., 1994), but the basic types and frequencies of OC symptoms have been found to be consistent across cultures and time (Rasmussen & Eisen, 1991). It is therefore important to identify homogeneous subgroups of OCD for understanding any given relationship having conceptual, diagnostic, clinical or biological meaning. Various methods have been used to identify subgroups like clinical symptoms, course of illness, genetics, biological markers, treatment response, etc. The most common method was using symptoms themselves as classifying variables. Many people have tried to find these homogeneous groups using different statistical methods. However there are very few systematic prospective studies. Baer (1994) found three factors: (1) Symmetry and hoarding, (2) Contamination and...
PHENOMENOLOGY OF OBSESSIVE COMPULSIVE DISORDER

They also found that "symmetry/hoarding" was associated with comorbid conditions of Tourette's syndrome or chronic tic disorder. They opined that the three OCD symptom subtypes identified may be related to outcome with medication or behavioural therapy.

Leckman et al. (1997) disapproved previous attempts to classify OCD on the basis of clinical phenotypes as they lacked sound empirical basis and symptom inventories used were biased towards specific symptoms. They found that some of the studies used composite severity ratings of obsessions and compulsions, making it impossible to examine the potential correlational relationships between symptom categories. They also opined that studies limiting the sampling frame to current rather than lifetime provides a more complete and accurate picture of an individual patient's clinical phenotype. On principal component analysis of YBOCS categories four factors emerged: (1) Obsessions (aggressive, sexual, religious and somatic) and checking, (2) Symmetry (need for exactness or symmetry) and ordering (ordering/arranging, counting, repeating rituals), (3) Cleanliness (contamination obsessions) and washing compulsions, (4) Hoarding (hoarding obsessions and hoarding and collecting compulsions). They concluded that OCD is a multidimensional and heterogeneous disorder.

Calamari et al. (1999) using hierarchical cluster analysis obtained a five clusters solution. They were (1) Harming subgroup, which had prominent harming obsessions and checking compulsions focused on preventing harm to others or oneself, (2) Hoarding cluster, had hoarding obsessions and compulsions, (3) Contamination cluster, pronounced contamination obsessions and washing compulsions, (4) Certainty cluster, characterized by multiple elevations on both obsessions and compulsions with a common theme of needing to be absolutely certain regarding a broad range of situations. and (5) Obsessional, with major concerns including lucky/unlucky numbers, superstitious fears, need to know or remember and mental rituals. Their core symptoms of subgroups identified were comparable with factors identified in the studies of Baer (1994) and Leckman et al. (1997). They found that "certainty" cluster was associated with higher depression and trait anxiety and higher OCD symptoms severity than others.

From India Akthar et al. (1975, 1978) tried to delineate obsessions and compulsions based on form and content from a phenomenological view. They identified five types of obsessions: doubts, obsessive thinking, fear, impulses and images. In compulsions, they identified two types: yielding and controlling compulsions. They identified six varieties of thought content: dirt and contamination, aggression, inanimate impersonal, sex, religion and miscellaneous. They opined that form is affected by intrinsic factors and content by extrinsic factors.

Khanna et al. (1990) tried to establish a phenomenological system of classification for various phenomena observed in OCD, using a classificator system for obsessions (Khanna & Channabasavanna, 1988) and compulsions (Khanna & Channabasavanna, 1987) which had high inter-rater reliability (Khanna et al., 1987). They derived 6 forms and 10 contents of obsessions and 4 forms and 6 contents of compulsions. These variables were used for cluster analysis. Seven clusters emerged of which four were considered important: (1) Checking, (2) Washing, (3) Past, (4) Embarrassing behaviour. Though washing and checking constituted two largest pure clusters, there was significant overlap, which is due to their frequent co-occurrence.

The above studies have suggested OCD as a multidimensional and heterogeneous disorder. The importance of recognizing sub-types is that they can help in prognostication and treatment, and facilitate research within homogeneous entities. It does not make sufficient sense to classify patients as responders or non-responders, because by the time one makes this judgement, a lot of time has already elapsed. However existing studies have their limitations. The use of symptom inventories that are biased towards certain symptoms, or that omit key symptoms, which was a major limitation of previous studies, led to the use of YBOCS check...
### TABLE 1
FREQUENCY OF OBSESSIONS ON Y-BOCS

| Y-BOCS Obsessions                              | Frequency | Percentage |
|-----------------------------------------------|-----------|------------|
| Concerns or digest with bodily waste or secretions | 84        | 41.6       |
| Concerned with dirt or germs                  | 101       | 50         |
| Excessive concern with environmental contaminants | 69        | 34.2       |
| Excessive concern with household items (cleaners) | 57        | 28.2       |
| Bothered by sticky substances or residues      | 56        | 27.7       |
| Concerned will get ill (e.g., AIDS)            | 22        | 10.9       |
| Concerned will get ill by spreading germs      | 17        | 8.4        |
| Somatic Obsessions                             | 6         | 3          |
| Other                                          | 7         | 3.6        |
| Violent or horrific images                     | 36        | 17.8       |
| Fear will act on                               | 40        | 19.6       |
| unwanted impulses                              |           |            |
| Fear will harm others because                  | 59        | 29.2       |
| not careful enough                             |           |            |
| Fear will be responsible for                   | 51        | 25.2       |
| something else terrible happening              |           |            |
| Other                                          | 6         | 3          |
| Personally unacceptable sexual thoughts         | 57        | 28.2       |
| Concerned with sacrilege and blasphemy         | 49        | 24.3       |
| Excess concern with right and wrong morality   | 30        | 14.9       |
| Collects useless items, e.g., old newspapers   | 44        | 21.8       |
| Concerned with losing or throwing out items    | 38        | 18.6       |
| Other                                          | 0         | 0          |
| After completing routine activities, doubts whether performed or not | 131 | 64.9 |
| Other                                          | 0         | 0          |
| Bothered by things not being lined up or being in order | 75 | 37.1 |
| Other                                          | 2         | 1          |
| Superstitious fear                             | 36        | 17.8       |
| Other                                          | 14        | 6.9        |

### TABLE 2
FREQUENCY OF COMPULSIONS ON Y-BOCS

| Y-BOCS Obsessions                              | Frequency | Percentage |
|-----------------------------------------------|-----------|------------|
| Excessive or ritualized hand washing           | 99        | 49         |
| Excessive or ritualized showering bathing, tooth brushing, grooming | 83 | 41.1 |
| Cleaning of household items or other inanimate objects | 44 | 21.8 |
| Other measures to prevent or remove contact with contaminants | 22 | 10.9 |
| Other                                          | 2         | 1          |
| Checking locks, stove, appliances, water faucets, emergency brake | 74 | 36.6 |
| Checking that did not harm others              | 27        | 13.4       |
| Checking that did not make mistake             | 63        | 31.2       |
| Checking tied to somatic obsessions other      | 3         | 1.5        |
| Rereading or rewriting                         | 42        | 20.8       |
| Repeats same questions                         | 43        | 21.3       |
| Need to repeat routine activities other        | 20        | 9.9        |
| Inspecting household trash and accumulating useless objects | 40 | 19.8 |
| Lines up clothes, canned goods, shoes in fixed order | 55 | 27.2 |
| Needs for symmetry                             | 41        | 21.3       |
| Can not complete activity until just right     | 72        | 35.6       |
| Mental rituals                                 | 35        | 17.3       |
| Counting compulsions                           | 28        | 13.9       |
| Excessive list making                          | 8         | 4          |
| Pathological slowness                          | 34        | 16.8       |
| Need to tell, ask, confess                     | 75        | 37.2       |
| Need to touch, tap, or rub                     | 13        | 6.4        |
| Superstitious behaviors                        | 41        | 20.3       |
| Asking for reassurance                         | 75        | 37.1       |
| Self-damaging behaviors                        | 8         | 4          |
| Rituals involving blinking or staring           | 3         | 1.5        |
| Other                                          | 0         | 0          |

There are some arguments regarding reframing and expanding certain categories. Also, all the above studies used the major categories for their analysis. This might result in misinterpreting certain
results and neglecting certain symptoms. Khanna et al. (1990) in a retrospective study, concluded that the role of intuition is inescapable.

The need for the current study was twofold. Firstly, the study by Leckman et al. (1997) needed replication, as suggested by the authors, to validate their observations. Secondly, the cross-cultural validity of the subtypes of the heterogenous syndrome of OCD needed to be verified, before such concepts are used in research. The usage of different scales for establishing phenomenology was also felt, as the YBOCS-Check List focuses only on content, while Indian work has recognised the importance of form also. Therefore, while descriptive studies agree on the prevalence of different obsessive compulsive phenomenon, factor-analytic studies are required to analyse the latent structures behind phenomenological constructs, which may further sub-categorise the disorder.

**METHODOLOGY**

All patients attending the specialised clinic for the patients with obsessive compulsive disorder (OCD Clinic) at the National Institute of Mental Health and Neuro Sciences, Bangalore, between the period September 1998 and July 1999 were evaluated. The OCD Clinic caters to both fresh and referred cases, predominantly from in and
GIRISHCHANDRA B.G. & SUMANT KHANNA

TABLE 4
FREQUENCY AND PERCENTAGE OF COMPULSIONS-FORM AND CONTENT

| Form                  | Checking | Repeating | Rituals | Avoiding | Total |
|-----------------------|----------|-----------|---------|----------|-------|
|                       | No.  | %    | No.  | %    | No.  | %    | No.  | %    | No.  | %    |
| Washing               | 2     | 1    | 56   | 27.7  | 84   | 41.6 | 15   | 7.4  | 113  | 55.9 |
| Daily activities      | 76    | 37.6 | 12   | 5.9   | 11   | 5.4  | 3    | 1.5  | 90   | 44.6 |
| Security              | 74    | 36.6 | 2    | 1     | 2    | 1    | 1    | 0.5  | 74   | 36.6 |
| Counting              | 6     | 3    | 7    | 3.5   | 21   | 10.4 | 0    | 0    | 33   | 16.3 |
| Praying               | 0     | 0    | 6    | 3     | 24   | 11.9 | 6    | 3    | 33   | 16.3 |
| Touching              | 0     | 0    | 2    | 1     | 5    | 2.5  | 2    | 1    | 7    | 3.5  |
| Embarrassing Behaviour| 2     | 1    | 2    | 1     | 38   | 18.6 | 6    | 3    | 41   | 20.3 |
| Hoarding              | 0     | 0    | 4    | 2     | 35   | 17.3 | 0    | 0    | 38   | 18.8 |
| Others                | 0     | 0    | 54   | 26.7  | 15   | 7.4  | 0    | 0    | 63   | 31.2 |
| Total                 | 85    | 42.1 | 120  | 59.4  | 130  | 64.4 | 23   | 11.4 |

around the city. The diagnosis of obsessive compulsive disorder was confirmed after a detailed evaluation according to ICD-10. All those who had a comorbid diagnosis of any psychotic disorder or Mental Retardation were excluded from the study.

INSTRUMENTS

Yale-Brown Obsessive Compulsive Scale Symptom Checklist

Y-BOCS symptom checklist (Goodman et al., 1989) includes more than 60 symptoms organised according to 15 separate categories of obsessions and compulsions. This scale comprehensively identifies all possible types of obsessions and compulsions.

Scale for Assessment of Form and Content:

This scale (Khanna et al., 1990) helps in identifying both form and content of obsessions and compulsions. This further helps in delineating the symptoms. It has 13 contents and 6 forms of obsessions and 9 contents and 4 forms of compulsions.

Data Analysis: 57 symptoms from Y-BOCS symptoms checklist were used for Factor analysis. Lifetime prevalence of symptoms was taken into consideration. Five factors were extracted. The initial factor solutions were then subjected to varimax rotation.

Similarly 13 contents and 6 forms of obsessions and 9 contents and 4 forms of compulsions from the SFC were also similarly analysed.

RESULTS

A total of 202 patients were evaluated using Yale Brown Obsessive Compulsive Scale Checklist (Y-BOCS) and Scale for assessment of Form and Content (SFC). Of the 202 patients, who constituted the study sample, 139 (68.8%) were males and 63 (31.2%) were females almost in a ratio of 2.2:1. Ages of the patients ranged between 12 and 62 years with a mean age of 29.50±10 years. The duration of OCD ranged between 0.3 to 40 years with a mean duration of 6.17±5.58 years. 59.4% patients presented mainly
PHENOMENOLOGY OF OBSESSIVE COMPULSIVE DISORDER

TABLE 5
ROTTED FACTOR MATRIX FOR Y-BOCS SYMPTOM CHECKLIST

| Concerns or disgust with bodily waste or secretions | Factor-I | Factor-II | Factor-III | Factor-IV | Factor-V |
|---------------------------------------------------|----------|-----------|------------|-----------|----------|
| 0.72                                              | 0.12     | 0.17      | 0.11       | 0.34      |
| Concerned with dirt or germs                      | 0.78      | 0.18      | 0.05       | 0.05      | 0.00     |
| Excessive concern with environmental contaminants  | 0.75      | 0.19      | 0.17       | 0.14      | -0.00    |
| Excessive concern with household items (cleaners)  | 0.66      | 0.18      | 0.07       | -0.04     | -0.07    |
| Bothered by sticky substances or residues          | 0.64      | 0.26      | 0.07       | -0.03     | -0.02    |
| Concerned will get ill (e.g., AIDS)                | 0.30      | 0.30      | 0.23       | -0.07     | 0.33     |
| Concerned will get others ill by spreading germs   | 0.28      | 0.07      | -0.02      | -0.15     | 0.28     |
| Somatic obsessions                                 | 0.16      | 0.13      | -0.20      | -0.20     | 0.24     |
| Other                                              | 0.29      | -0.15     | -0.21      | 0.01      | 0.14     |
| Violent or horrific images                         | 0.30      | -0.07     | 0.14       | 0.06      | 0.32     |
| Fear will act on unwanted impulses                 | 0.01      | -0.06     | 0.31       | 0.15      | 0.34     |
| Fear will harm others because not careful enough   | -0.13     | 0.10      | 0.51       | 0.28      | 0.12     |
| Fear will be responsible for something else terrible happening | -0.04     | 0.08      | 0.49       | 0.36      | 0.16     |
| Personally unacceptable                           | -0.12     | -0.01     | 0.13       | 0.08      | -0.18    |
| Sexual thoughts                                    | -0.17     | 0.07      | -0.01      | 0.12      | 0.53     |
| Concerned with sacrilege and blasphemy            | -0.11     | 0.18      | -0.06      | 0.29      | 0.51     |
| Excess concern with right and wrong, morality      | -0.20     | 0.27      | -0.09      | 0.08      | 0.24     |
| Collects useless items, e.g., old newspapers       | 0.08      | 0.79      | 0.09       | 0.09      | 0.15     |
| Concerned with losing or throwing out items        | 0.02      | 0.84      | 0.10       | 0.10      | 0.06     |
| After completing routine activities, doubts whether performed or not | 0.18      | 0.26      | 0.60       | -0.07     | 0.17     |
| Other                                              | -0.10     | 0.22      | -0.08      | -0.01     | -0.31    |
| Bothered by things not being lined up or being in order | 0.31      | 0.60      | 0.11       | 0.12      | -0.11    |
| Superstitious fear                                 | 0.20      | -0.05     | -0.03      | 0.66      | 0.09     |
| Other                                              | -0.22     | -0.02     | -0.21      | 0.02      | -0.37    |
| Excessive or ritualized hand washing               | 0.74      | -0.04     | 0.18       | 0.05      | 0.01     |
| Excessive or ritualized showering, bathing, tooth brushing, grooming | 0.78      | 0.05      | 0.12       | 0.15      | -0.05    |
| Cleaning of household items or other inanimate objects | 0.59      | 0.10      | -0.03      | -0.12     | 0.04     |
| Other measures to prevent or remove contact with contaminants | 0.47      | 0.07      | -0.03      | -0.12     | 0.04     |
| Other                                              | -0.11     | 0.22      | -0.29      | 0.01      | -0.02    |
| Checking locks, stove appliances, water faucets, emergency brake | 0.17      | 0.11      | 0.70       | -0.17     | -0.08    |
| Checking that did not harm others                  | 0.07      | -0.02     | 0.67       | -0.04     | -0.11    |
| Checking that did not make mistake                 | 0.10      | 0.12      | 0.72       | -0.10     | -0.21    |
| Checking tied to somatic obsessions                | 0.00      | 0.13      | -0.28      | -0.12     | -0.10    |
with a mixture of obsessions and compulsions and 37.6% of the patients presented predominantly with obsessions. Only a minority of patients (3%) presented predominantly with compulsions.

The most commonly occurring obsessive symptoms were Obsessional doubts about routine activities, followed by obsessions about dirt or germs, bodily waste or secretions (Table 1), based on Y-BOCS Check List. The most commonly occurring compulsions were hand washing, followed by bathing and grooming and the need to ask and need for reassurance (Table 2). When the obsessions and compulsions were rated on the SFC the results are displayed in the Table 3 and 4. Obsessive thoughts were most commonly observed, followed by obsessive doubts and fears. Most common obsessive content was daily activity, followed by dirt and contamination, need for symmetry, sex and religion. Almost two-thirds of the total compulsions were in the form of rituals and repeating each.

Five factors obtained from Factor analysis of Y-BOCS system checklist were as follows, (Table 5)

Factor 1- Contamination obsessions and washing or cleaning compulsions.
Factor 2- Hoarding obsessions and compulsions, Symmetry obsessions and Arranging compulsions.
Factor 3- Aggressive obsessions, Obsessive doubts with checking compulsions.
Factor 4- Superstitious fears and behaviours, Mental rituals and Need to touch/tap/rub.
Factor 5- Sexual and Religious obsessions.

Factors emerging from Factor analysis of Scale for Assessment of Form and Compulsion were (Table 6)

Factor 1- Daily activity obsessions, Obsessive doubts, Daily activity and Security compulsions and checking.
Factor 2- Dirt and contamination obsessions and Need for symmetry, obsessive thoughts, washing compulsions and repeating compulsions.
Factor 3- Obsessions of Religion, Sex, Right/wrong/Morals, Urges not acted and praying.
PHENOMENOLOGY OF OBSESSIVE COMPULSIVE DISORDER

TABLE-6

ROTATED FACTOR MATRIX FOR SCALE FOR ASSESSMENT OF FORM AND CONTENT

|                          | Factor-I | Factor-II | Factor-III | Factor-IV | Factor-V |
|--------------------------|----------|-----------|------------|-----------|----------|
| Dirt & contamination     | 0.16     | 0.85      | -0.09      | 0.07      | 0.05     |
| Religion                 | 0.21     | -0.04     | 0.71       | 0.03      | -0.01    |
| Sex                      | -0.04    | -0.02     | 0.71       | -0.16     | 0.01     |
| Death                    | -0.13    | -0.06     | 0.06       | -0.13     | 0.56     |
| Illness                  | 0.17     | 0.27      | -0.06      | -0.14     | 0.46     |
| Aggression               | 0.14     | -0.06     | 0.33       | 0.18      | 0.27     |
| Harm                     | 0.13     | -0.22     | -0.10      | 0.21      | 0.29     |
| Past                     | 0.02     | 0.14      | -0.14      | -0.09     | -0.23    |
| Daily activities         | 0.78     | 0.06      | 0.06       | -0.01     | -0.13    |
| Inanimate-Impersonal    | 0.08     | -0.27     | 0.01       | -0.06     | 0.04     |
| Need for symmetry        | 0.29     | 0.49      | 0.08       | 0.13      | -0.12    |
| Right/Wrong/Morals       | 0.10     | 0.09      | 0.46       | -0.08     | 0.01     |
| Others                   | -0.30    | -0.22     | -0.17      | 0.37      | -0.13    |
| Washing                  | 0.15     | 0.82      | -0.10      | 0.18      | 0.06     |
| Daily activities         | 0.84     | 0.08      | -0.03      | 0.15      | 0.02     |
| Security                 | 0.87     | 0.05      | -0.02      | 0.00      | 0.10     |
| Counting                 | 0.20     | -0.04     | 0.08       | 0.57      | 0.10     |
| Praying                  | -0.05    | 0.04      | 0.48       | 0.37      | 0.08     |
| Touching                 | -0.15    | 0.01      | -0.12      | 0.14      | -0.08    |
| Embarrassing Behaviour   | -0.03    | 0.25      | 0.08       | 0.46      | -0.06    |
| Hoarding                 | 0.12     | 0.22      | 0.09       | 0.40      | 0.07     |
| Others                   | -0.08    | 0.11      | -0.13      | 0.30      | -0.25    |
| Doubts                   | 0.65     | 0.32      | 0.04       | -0.11     | -0.08    |
| Thoughts                 | 0.07     | 0.42      | 0.15       | -0.13     | 0.00     |
| Fear                     | -0.04    | 0.23      | 0.09       | 0.23      | 0.69     |
| Urges-acted              | 0.07     | 0.11      | 0.15       | 0.25      | -0.38    |
| Urges not acted          | -0.06    | -0.16     | 0.63       | 0.12      | -0.11    |
| Images                   | -0.01    | 0.16      | 0.29       | -0.15     | 0.09     |
| Convictions              | 0.01     | -0.09     | -0.21      | 0.37      | 0.01     |
| Checking                 | 0.89     | 0.05      | -0.05      | 0.07      | 0.04     |
| Repeating                | 0.17     | 0.50      | -0.03      | 0.18      | -0.05    |
| Rituals                  | -0.01    | 0.39      | -0.06      | 0.60      | 0.01     |
| Avoiding                 | -0.03    | 0.29      | 0.28       | 0.33      | -0.23    |
| Eigen value              | 4.59     | 2.57      | 2.39       | 1.74      | 1.65     |
| Pet Variance             | 13.90    | 7.80      | 7.30       | 5.30      | 5.00     |

compulsions.

Factor4- Embarrassing behaviour, Hoarding compulsions with compulsive Rituals.

Factor5- Obsessions of Death and Illness and obsessive thoughts.

DISCUSSION

The current study is one of the few prospectively conducted studies with a focus on phenomenology of obsessions and compulsions, in a well-categorised group of OCD. A large sample size make it the only study comparable to the prospective study by Leckman et al.(1997). The use of two different instruments which have been used previously was also an attempt to validate the classification with gratifying results. The results cross-validate the utility of both scales.

Both the factor analyses have shown three common factors: Washing, Checking and Hoarding. Factors 4 and 5 on YBOCS-CL and Factors 3 and 5 on SFC refer to a predominant obsessional group, with preponderance of sexual and religious themes. While these studies are largely in concordance with earlier studies from different parts of the World-Egypt (Okasha et al., 1994), Israel (Greenberg and Chir, 1984), UK (Lewis, 1936), Italy (Calamari et al., 1999), USA.
(Leckman et al., 1997) and Mexico (Nicolini et al., 1997), certain differences need to be observed. In their factor analytic study, Leckman questioned the validity of differentiating obsessions from compulsions, as all their groups had mixture of both symptoms. Our study does not support this and there seems to be a dimension of obsessions alone, as also suggested by Baer (1994) and Calamari et al. (1999). Differences between different factors will be addressed later.

Washers as a distinct group have been recognised for some time and categorised accordingly (Khanna and Mukherjee, 1992). This is a consistent group across all studies. The SFC recognizes two types of washing compulsions—rituals and repeating. A ritual is a symbolic action with an associated emotional tone, which is accompanied by a particular sense of righteousness and inevitability (Khanna and Channabasavanna, 1987). Not all rituals are abnormal, nor are they all obsessive. Rituals can be differentiated from repetition inasmuch they involve a purposive action rather than just a series of movements, (2) are performed according to certain rules and (3) are not rationally related to the goal (Walker, 1973). The definition suggests a quality of magical thinking associated with such behaviours, and needs to be explored further to suggest therapeutic approaches. This may also explain the often seen phenomenon where OCD subjects may wash their hands very often, but still not attend adequately to personal hygiene. On the SFC, need for symmetry is also associated with this factor, although it is present with hoarding in YBOCS-CL.

The phenomenon of checking is also a frequently encountered sub-group of OCD, and there have been studies suggesting neuropsychological deficits in this subgroup (Tallis et al., 1999). While this emerges as a relatively pure sub group on SFC, it is linked with aggressive obsessions on YBOCS-CL. Calamari et al. (1999) found an association with harming obsessions, which however has not emerged in any other study.

A recently identified sub-group of hoarders is replicated by both the factor analyses. There are different associated symptoms on the two scales. On YBOCD-CL symmetry obsessions and arranging compulsions come within this group, while on SFC embarrassing behaviour and compulsive rituals have significant loading. Although it seems to be a common phenomenon, it is rarely a presenting complaint. As a matter of fact, it had been completely missed in some earlier studies (Khanna et al., 1990) and therefore needs careful elicitation, specifically in terms of responsiveness to psychological interventions.

The obsessional factors on both the scales include themes like religion, sex, superstitious fears, mental rituals, urges not acted out etc. Death and illness are two themes which SFC picks up, but the items are not there on YBOCS-CL. These themes seem to be important in an Indian setting, and have been picked up earlier in a retrospective cluster-analytic study (Khanna et al., 1990). Religious and sexual obsessions involve a high degree of secrecy in their communication to the examiner, and can easily be missed on superficial examination. This can often mislead to diagnosis of other categories on the basis of observed behaviour without elicited obsessions. The feelings of guilt associated with such obsessions also make the presence of co-morbid depression a frequent occurrence.

Few studies have looked at mental rituals or cognitive compulsions, and found them as being significant. These are often attempted to ward off unpleasant expectations and superstitions, as has emerged in Factor IV of YBOCS-CL. Their occurrence is a frequent block in the conduct of cognitive behaviour therapy, and the exploration for their presence is mandatory. They often arise on the background of response prevention for (Physical) compulsions as a part of behaviour therapy.

There are other dimensions of OCD such as certainty, risk aversiveness, etc., which however are based on psychological constructs which need first to be established as being central to the diagnosis of OCD. Nor are they picked up by the standard scales in usage at this time. There is a strong case to empirically derive behavioural and psychological models for OCD, and try and link...
PHENOMENOLOGY OF OBSESSIVE COMPULSIVE DISORDER

them to specific phenomena or dimensions of this disorder.

What relevance do these factors have in clinical practice? In an exploratory study, obsessive thoughts of the past were found to be linked to a deteriorating course (Khanna and Kaliaperumal, 1989). In another study a similar course was found with inanimate obsessions, while obsessive doubts were associated with a good outcome. However, more studies are required to define predictive value of symptom clusters. The pure obsessional group does not seem to respond as well to behaviour therapy alone (Hohagen et al., 1998) as has been the earlier experience too. The need to specifically develop behavioural strategies for pure obsessional therefore takes on a new urgency. There are unfortunately few clinical or phenomenological predictors so far of drug responsiveness in the literature which have been consistently reported (Pato and Zohar, 1991). There is an exploratory application of the factor analytic approach of Leckman et al. (1997) to study of genetics of OCD (Alsobrook et al., 1998) with results suggesting a differential inheritance of different phenomenological factors.

The current study explores the factor analytical construct of phenomenology of obsessions and compulsions in OCD. The study extends recent work done in this area, with scientific and methodological rigour, in a large sample size. The usage of two different scales, further validates the findings. The cross-cultural validity of these approaches, and the similarities across culture and time, suggest that the broad factors being identified are heuristically stable and identify different dimensions of the syndrome of OCD. Further research needs to establish the etiological, prognostic and therapeutic implications of such a classification.

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