SHORTER COMMUNICATIONS

Abnormal and normal compulsions

PETER MURIS, HARALD MERCKELBACH and MICHEL CLAVAN

Department of Psychology, University of Limburg, P.O. Box 616, 6200, MD Maastricht, The Netherlands

(Received 23 September 1996)

Summary—Previous research by Rachman and de Silva (1978, Behaviour Research and Therapy, 16, 233–248) and by Salkovskis and Harrison (1984, Behaviour Research and Therapy, 22, 549–552) has shown that abnormal and normal obsessions are similar in content. The present study examined whether the same is true for abnormal and normal rituals. A sample of normal subjects (N = 150) were asked about their idiosyncratic rituals. A majority of them (54.7%) indicated that they had such rituals. While these rituals were less frequent, less intense, and less often associated with negative affect than the compulsions of a sample of patients with obsessive-compulsive disorder, differences in terms of content between normal and abnormal rituals were small. Experts often tended to misclassify abnormal compulsions as normal rituals. By and large, the present findings indicate that there is a continuity between abnormal and normal compulsions. © 1997 Elsevier Science Ltd. All rights reserved

INTRODUCTION

Obsessions and compulsions are central features of obsessive-compulsive disorder (OCD). "Obsessions are persistent ideas, thoughts, impulses, or images that are experienced as intrusive and inappropriate, and that cause marked anxiety or distress" (American Psychiatric Association (APA), 1994, p. 418). Most obsessions involve repeated thoughts about contamination, repeated doubts, a need to have things in a particular order, aggressive impulses, or sexual imagery (Rachman & Hodgson, 1980). "Compulsions are repetitive behaviours (e.g. hand washing, ordering, checking) or mental acts (e.g. praying, counting, repeating words) the goal of which is to prevent or reduce anxiety or distress, not to provide pleasure or gratification. In most cases, the person feels driven to perform the compulsion to reduce the distress that accompanies an obsession or to prevent some dreaded event or situation" (APA, 1994, p. 418). The most common compulsions involve washing and cleaning, checking, requesting or demanding assurance, repeating actions, and ordering (Rachman & Hodgson, 1980).

There is strong evidence to suggest that a majority of people experience unpleasant intrusions that are highly similar to the obsessions found in OCD. For example, in a study by Rachman and de Silva (1978) (see also Salkovskis & Harrison, 1984; Freeston, Ladouceur, Thibodeau & Gagnon, 1991), obsessive thinking in OCD-patients and non-clinical Ss was examined. Results showed that about 80% of non-clinical Ss experience obsessions. Furthermore, notable similarities between ‘abnormal’ and ‘normal’ obsessions were observed for form and content. However, abnormal obsessions were found to be more frequent, more intense, of longer duration, and produced more discomfort than normal obsessions. Taken together, then, these findings indicate that there is a continuity between normal cognitive intrusions and pathological obsessions. The important implication of this is that, to a certain extent, normal intrusions can be used as an analogue of clinical obsessions (see also Salkovskis & Harrison, 1984).

To the present authors’ knowledge, no study has systematically compared compulsive and ritualistic behaviour in OCD patients and non-clinical Ss. Yet, there are good reasons to believe that just as is the case with obsessions, there is a remarkable correspondence between normal rituals and pathological compulsions. For example, drawing on anthropological studies, Dulaney and Fiske (1994) argued that a number of cultural rituals can be described in terms of OCD-like compulsions. To explore this issue further, the present study made an attempt to compare the idiosyncratic rituals of normals and the compulsions of OCD patients. One-hundred and fifty normal Ss were questioned about the presence and characteristics of compulsive and ritualistic behaviours. In addition, the compulsions of 38 OCD-patients were investigated in detail.

STUDY I: NORMAL COMPULSIONS

Method

The normal sample consisted of 150 Ss (59 men and 91 women). Most of them were health sciences, psychology, or medical undergraduate students of the University of Limburg, and some were employed as secretaries, research workers, doorkeepers, and kitchen personnel of the university. Mean age of the sample was 24.7 yr (SD = 9.1; range 18–55).

A simple questionnaire was given to the Ss, inquiring about the presence of idiosyncratic rituals and their characteristics. The instruction of the questionnaire ran as follows: "Many people have rituals or feel compelled to carry out certain behaviours in certain circumstances. Below is a questionnaire regarding the occurrence of such ritual acts in your life". Next, some examples were given of idiosyncratic rituals, and Ss were invited to list and specify rituals that they
Table 1. Categories and frequency distribution (percentages) of rituals in non-clinical subjects (n = 82) and OCD-patients (n = 38)

|                          | Non-clinical subjects (n = 82) | OCD-patients (n = 38) | t or $\chi^2$ | t  \\n|--------------------------|--------------------------------|-----------------------|---------------|-----
| Checking                 | 22 (26.8)                      | 14 (36.8)             | 1.2           | NS  \\n| Washing, cleaning and ordering | 13 (15.9)                  | 19 (50.0)             | 15.5          | <0.001  \\n| Avoiding particular objects | 5 (6.1)                         | 1 (2.7)               | 0.7           | NS  \\n| Magical protective acts  | 42 (51.2)                      | 4 (10.5)              | 18.2          | <0.001  \\n
82 (100.0) 38 (100.0)

themselves performed. Finally, Ss rated their rituals in terms of frequency (“How often do you carry out the rituals?": 1 = almost never, 5 = more than once a week); resistance (“Do the rituals elicit resistance?": 1 = not at all, 5 = very much); senselessness (“Do you consider the rituals as senseless?": 1 = not at all, 5 = very much); intensity (“Do the rituals feel intense?": 1 = not at all, 5 = very much); discomfort (“Do the rituals elicit discomfort?": 1 = not at all, 5 = very much); relation to thought (“Are the rituals preceded by negative thoughts?": 0 = no, 1 = yes); and relation to mood (“Are the rituals preceded by negative mood?": 0 = no, 1 = yes).

Subjects also completed the Maudsley Obsessive-Compulsive Inventory (MOCI; Hodgson & Rachman, 1977). The MOCI comprises 30 true–false items which pertain to obsessive-compulsive symptoms. MOCI total scores range between 0 and 30. The higher the total score, the more severe the OCD symptoms.

**Results**

Of the 150 Ss, 82 (54.7%) reported that they performed ritualistic behaviours. Subjects who reported ritualistic behaviour had significantly higher MOCI scores than Ss who did not, means being 6.4 (SD = 3.6) and 4.8 (SD = 2.3), respectively [t(148) = 2.8, P < 0.005]. Rituals were concerned with checking (n = 22), carrying out 'magical' protective behaviours (e.g. counting, saying particular numbers, touching a talisman; n = 42), cleaning, washing, and ordering (n = 13), and avoiding particular objects (n = 5) (Table 1). The characteristics of these 'normal' compulsions are shown in the left column of Table 2. Thus, the results of Study 1 indicate that ritualistic behaviours are a common phenomenon among healthy, normal Ss: that is, more than half of the normal Ss reported that they sometimes or often performed ritualistic acts.

**STUDY 2: COMPARISON OF ABNORMAL AND NORMAL COMPULSIONS**

**Method**

In Study 2, the behaviours of the 82 ritual performers of Study 1 were compared to the compulsions of 38 patients (16 men and 22 women) who met the DSM-III-R criteria for OCD. All of them were out-patients of the Community Mental Health Centre in Maastricht, The Netherlands. Mean age of the patient sample was 33.0 yr (SD = 11.8; range 19–65). The records of these patients were examined in detail by the third author. In this way, information was gathered about the most prominent compulsions and their characteristics (i.e. frequency, resistance, senselessness etc.). MOCI-scores of the patients were also available.

In addition, following Rachman and de Silva (1978), it was examined whether the compulsions of normal Ss and OCD-patients are discriminable on the basis of content alone. For this purpose, 20 non-clinical and 20 clinical compulsions were randomly selected from the normal and the patient samples. Next, descriptions of the rituals were made. These descriptions were shuffled and printed on a list. There were two versions of the list: an 'easy' version containing a detailed description of each compulsion, including information on its frequency and intensity, and a 'difficult' version only containing a brief description of the content of each compulsion. Lists were then given to four judges who had experience with OCD-patients, along with the instruction to sort the compulsions into 'normal' and 'abnormal'. Furthermore, for each item, judges had to rate how certain they were about their decision (0 = not certain at all; 5 = almost certain). The results of Study 2 indicate that the compulsions of normal Ss and OCD-patients are discriminable on the basis of content alone.
To two judges (one psychologist and one psychotherapist) were given the easy version, and two judges (one psychologist and one psychotherapist) were given the difficult version.

Results

OCD-patients had significantly higher MOCI-scores than normal ritual performers, means being 15.2 (SD = 4.5) and 6.4 (SD = 3.6), respectively [t(118) = 11.2, P < 0.001]. Furthermore, OCD-patients were significantly older than normal Ss; mean ages were 33.0 yr (SD = 11.8) and 24.7 yr (SD = 9.1), respectively [t(118) = 4.1, P < 0.001].

Table 1 shows the distribution of rituals and compulsions over several categories for OCD-patients, and normal Ss. A chi-square analysis indicated that the two groups differed with regard to the frequency of certain types of ritualistic behaviour \( [\chi^2(3) = 24.1, P < 0.001] \). As can be seen, OCD-patients more frequently exhibited washing, cleaning, and ordering, whereas in normal Ss, 'magical' protective behaviours were more common.

A comparison between the characteristics of 'abnormal' and 'normal' compulsions (Table 2) revealed that abnormal compulsions were more frequent, more intense, and elicited more resistance and discomfort. Furthermore, abnormal compulsions were more often carried out in response to distressing thoughts or negative mood.

As to the issue of whether experts can differentiate between normal and abnormal compulsions, the data can be summarized as follows. To begin with, judges who received the 'easy' version of the compulsion list were more certain about their decisions than judges who received the 'difficult' version, mean certainty scores being 65.4 (SD = 19.7) and 47.7 (SD = 19.9), respectively \([\chi^2(78) = 4.0, P < 0.001]\). Second, for the 'easy' version, the percentages of correctly identified 'abnormal' and 'normal' compulsions averaged over the two judges were 61.5 and 87.5. For the 'difficult' version, these percentages were 65.0 and 95.0. Thus, the ability of experts to differentiate between 'normal' and 'abnormal' compulsions was not particularly impressive. More specifically, experts had difficulties 'identifying 'abnormal' compulsions, whether they received the 'easy' or the 'difficult' version of the compulsion list. On the other hand, they were moderately good at identifying 'normal' compulsions.

DISCUSSION

The results of the current study can be summarized as follows. First of all, ritualistic behaviour appeared to be a common phenomenon. That is, a majority of the normal Ss reported to have a ritual or compulsion. Secondly, there was a close correspondence between the content of normal compulsions and that of pathological compulsions. For example, experts often tended to misclassify 'abnormal' as 'normal' compulsions. Thirdly, despite these similarities in content, 'abnormal' and 'normal' compulsions differed in several respects: abnormal compulsions were more frequent and intense, elicited more discomfort and resistance, and were more often associated with distressing thoughts and negative mood. Finally, the frequency distribution of the compulsions differed between normal Ss and OCD-patients. That is, washing, cleaning, and ordering were more prevalent among OCD-patients, whereas 'magical' protective behaviours were more common in normal Ss.

The present findings are well in line with previous research on normal and abnormal obsessions (Rachman & de Silva, 1978; Salkovskis & Harrison, 1984). That research demonstrated that there is a continuity between normal cognitive intrusions and pathological obsessions. On the basis of the current results, it seems safe to conclude that much the same is true for normal rituals and pathological compulsion. That is, normal and abnormal compulsions differ in terms of associated parameters (e.g. frequency, resistance etc.) rather than content.

What is the source of the similarity between normal and abnormal compulsions? One possibility is that compulsions derive from a psychological mechanism that serves to simplify the environment. In this view, "Ritual performers control and re-order the world by concentrating and simplifying it, distilling it to its manipulable essence" (Dulaney & Fiske, 1994, pp. 274-275). Another possibility is that evolutionary preparedness underlies both normal and pathological compulsions (e.g. Seligman, 1971). According to the preparedness view, rituals like checking and washing once promoted survival and reproduction and subsequently became genetically coded in the form of a learning mechanism that can be easily triggered. While there is some indirect evidence that supports such preparedness account of compulsions (e.g. de Silva, Rachman & Seligman, 1977; but see van den Hout, Merckelbach, Hoekstra & Oosterlaan, 1988), evolutionary models of behaviour are notoriously difficult to test (Merckelbach & de Jong, 1996).

Whatever its origins, the correspondence between normal rituals and pathological compulsions implies that normal rituals can be studied as analogues of clinical compulsions. This conclusion raises a number of interesting questions. For example, Wegner (1994) demonstrated that suppression of a thought leads to a paradoxical preoccupation with that thought. Is the same true for rituals? Does inhibition of rituals produce a paradoxical enhancement of ritual frequency? And are effortful attempts to inhibit rituals the precursors of pathological compulsions? Clearly, these questions warrant further research.

REFERENCES


