Defense Mechanism Changes in Successfully Treated Patients With Obsessive-Compulsive Disorder

Ronald C. Albucher, M.D., James L. Abelson, M.D., Ph.D., and Randolph M. Nesse, M.D.

Objective: Changes in defense mechanisms after treatment of patients with obsessive-compulsive disorder (OCD) were measured by using an established rating scale. Method: Before and after 7-week group behavior therapy, 17 patients with DSM-III-R OCD were assessed with the Defense Style Questionnaire, Yale-Brown Obsessive Compulsive Scale, and Beck Depression Inventory. Results: After behavior therapy the patients evidenced significant decreases in Yale-Brown Obsessive Compulsive Scale scores and significant increases in the use of more adaptive defense mechanisms. There were no significant changes in three maladaptive defense mechanism categories. The improvement in adaptive defenses was independently linked to improvement both in OCD and in depression. Conclusions: Personality as defined by defense mechanisms may be more amenable to brief behavioral treatment than previously thought. The permanence of these changes must be further assessed.

(Am J Psychiatry 1998; 155:558–559)

Personality is often perceived as a stable collection of ego strengths and defenses, amenable to permanent change only after fairly extensive psychotherapeutic intervention. Defensive style is thought to reflect "an enduring and important dimension of personality" that is "not just epiphenomena of psychopathology" (1, p. 787). However, therapists have noticed dramatic and sustained improvement in patients with obsessive-compulsive disorder (OCD) after relatively brief courses of behavioral therapy and pharmacotherapy (2–4). We postulated that these improvements in the symptoms of OCD would correlate with improvements in personality as measured by defense mechanisms. Specifically, the use of more adaptive defenses would increase, while maladaptive defenses would be used less frequently as symptomatic improvements progressed.

METHOD

Seventeen patients diagnosed with DSM-III-R OCD agreed to treatment in a 7-week group behavior therapy program at the University of Michigan Anxiety Disorders Program. Behavior therapy was conducted with both exposure and response prevention techniques, as described by Steketee (2). The University of Michigan Medical School Institutional Review Board for Human Subject Research granted approval for this project. After complete description of the study to the subjects, written informed consent was obtained.

Of the 17 patients, 65% were male (N=11), 82% were unmarried (N=14), and all were Caucasian; their average age was 35 years (SD=9). Before and after behavior therapy all patients were assessed with the Yale-Brown Obsessive Compulsive Scale (5), the Beck Depression Inventory (6), and the Defense Style Questionnaire, an 88-item self-report rating scale that indirectly measures defenses by tapping conscious derivatives of unconscious mental processes (7).

The defense mechanisms were sorted into four groups: maladaptive action, image distorting, self-sacrificing, and adaptive. The scores determined before and after behavior therapy were compared by using two-tailed paired t tests.

RESULTS

As expected, after treatment there were significant decreases in scores on the Yale-Brown Obsessive Compulsive Scale and Beck Depression Inventory. The scores on the Yale-Brown scale decreased from a mean of 22.4 (SD=6.3) before treatment to a mean of 14.6 (SD=5.6) at week 7 ($t=5.2$, $df=15$, $p<0.01$).

There was an expected increase in the use of adaptive defenses, such as humor, suppression, and sublimation ($t=–2.1$, $df=16$, $p<0.05$). Reductions in the three categories representing less adaptive defense mechanisms were not found (maladaptive action: $t=1.2$, $df=16$, $p=0.24$; image distorting: $t=0.6$, $df=16$, $p=0.56$; self-sacrificing: $t=–0.3$, $df=16$, $p=0.79$). When we separated the specific obsessional defense mechanism of "undoing" from the group "maladaptive action," however, we observed a significant decrease in its use after treatment ($t=2.6$, $df=16$, $p=0.02$). No other individual defense mechanism changed significantly.

Although the baseline scores on the Yale-Brown Obsessive Compulsive Scale and Beck Depression Inventory were related to each other ($r=0.6$, $N=15$, $p=0.02$), the degree of improvement in OCD symptoms was not

Received March 17, 1997; revision received Sept. 5, 1997; accepted Sept. 26, 1997. From the Department of Psychiatry, University of Michigan Medical Center. Address reprint requests to Dr. Albucher, Department of Psychiatry, University of Michigan Medical Center, Med Inn-4/Box 0840, 1500 East Medical Center Dr., Ann Arbor, MI 48109-0840; ronaldc@umich.edu (e-mail).

a function of improvement in depression; i.e., the change in the Yale-Brown score was not correlated significantly with the change in the Beck Depression Inventory score (r=0.4, N=14, p=0.16). The increased use of adaptive defense mechanisms was linked to improvements in both depressive and obsessive-compulsive symptoms (Beck Depression Inventory: r=0.7, N=15, p=0.002; Yale-Brown scale: r=0.6, N=16, p=0.03). In multiple correlation analysis, the changes in both the Beck and Yale-Brown scores were significantly linked to the increase in the adaptive defense mechanism score ($p<0.05$ for both); together they accounted for 64% of the variance in the improved defense mechanism measure (r=0.8, N=15, p=0.004).

DISCUSSION

These results indicate greater use of more adaptive defense mechanisms when patients' OCD symptoms improve after use of behavior therapy techniques. Improvements in both obsessive-compulsive and depressive symptoms were linked to greater use of healthier defenses, such as humor, altruism, and sublimation, as measured by the Defense Style Questionnaire, despite the fact that none of these defense mechanisms was directly encouraged by the treatment. There was no significant decrease in any of the three groups of less adaptive defenses. However, when we examined a single less adaptive defense mechanism particular to OCD (i.e., undoing) we found a statistically significant improvement.

The findings of this study contradict ideas of personality as trait dependent and static (1, 8, 9). A prior study using the Defense Style Questionnaire with an unselected group of psychiatric care seekers revealed no change of defenses after treatment (8). However, there was a trend toward the use of more mature defenses at 6-month follow-up. This raises the possibility that the increased use of mature defenses by our subjects is a nonspecific finding, although the time course in our study was considerably briefer.

There is other evidence to support the idea that personality as defined by defense mechanisms may be state dependent. Akkerman et al. (10) found improvement in immature defenses when they used a modified version of the Defense Style Questionnaire to study a group of patients with major depressive disorder. Although neurotic and mature defenses remained unaltered at the end of treatment, the investigators reached a conclusion similar to ours, that psychiatric illness may be accompanied by a potentially reversible psychological regression, whereby healthier defenses may reappear as recovery occurs (10).

Starcevic and Uhlenhuth (11) recently reported that aspects of personality as conceptualized by Cloninger's Tridimensional Personality Questionnaire, such as harm avoidance, improved significantly in panic disorder patients after drug treatment. Also, there are anecdotal reports of both symptom improvement and personality change in patients treated with brief psychodynamic psychotherapy (12, 13). Finally, there are case reports of rare symptom substitution in patients who cannot use healthier defense mechanisms after behavior therapy (14).

Research is needed to determine the permanence of these defense mechanism changes and their correlation with outcome. We attempted a follow-up study to see whether this change in defense mechanisms persisted after the conclusion of treatment or whether the change was a temporary shift in an otherwise stable constellation of defense mechanisms. Unfortunately, many members of the original group had undertaken other treatments, both pharmacological and psychotherapeutic, during the intervening period, and the uncontrolled follow-up was difficult to interpret given the number of subjects.

The traditional psychodynamic perspective that personality and defense mechanisms are the underpinnings of psychiatric symptoms and are unlikely to change with brief or superficial treatment is no longer tenable. Instead, the interplay between defense mechanisms and psychiatric symptoms is likely more reciprocal. Maladaptive defenses may lead to greater symptoms, while greater symptom severity may lead to the use of less mature defenses. We investigated the latter possibility, demonstrating that when patients improve symptomatically, a shift to more adaptive defenses can occur. The other components of this hypothesis can be subjected to empirical testing in future work.

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