

# The Relationship Between Insight and Control in Obsessive-Compulsive Disorder: Implications for the Insanity Defense

Merrill Rotter, MD; and Wayne Goodman, MD

In this paper the authors examine the relationship between insight and control in patients with obsessive-compulsive disorder (OCD) in an effort to better understand the concept of volitional control of behavior especially as it relates to changes in the insanity defense that were recommended by the American Psychiatric Association (APA), specifically that the volitional prong be dropped. Yale-Brown Obsessive Compulsive Scale ratings in 56 subjects with OCD were reviewed with specific attention to items measuring the patients' subjective sense of decreased volitional control over their compulsions and their insight into their behavior. No statistically significant correlation was found between the control over compulsions item and the insight item. The authors conclude that the experience of volitional control in patients with OCD is not significantly related to the level of insight they have into the irrationality of their behavior. The authors then review cognitive therapy literature and show that though cognition and volition may appear to be dissociated in some disorders, even in the absence of insight, a relatively gross measure of legally relevant cognitive disturbance, subtle cognitive changes can be identified in patients with seemingly purely volitional disorders such as OCD.

In this study we utilize data about patients with obsessive-compulsive disorder (OCD) to explore the rationale behind recent changes in the insanity defense. In the past few years jurisdictions have, in increasing numbers, sought to

narrow the criteria for a successful defense of insanity by eliminating a defense based on a defendant's inability to control his behavior (the "volitional prong" of the insanity defense).<sup>1</sup> Specifically, we examine the relationship between volitional control of behavior and the cognitive appreciation of the nature and consequences of that behavior.

Hypotheses about the nature of this relationship played an important role in the thinking of those who recommended

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Dr. Rotter is affiliated with the Department of Psychiatry, Mount Sinai School of Medicine, New York, NY; and Dr. Goodman is affiliated with the Department of Psychiatry, Yale University School of Medicine, New Haven, CT. Address correspondence to: Merrill Rotter, M.D., Department of Psychiatry, Elmhurst Hospital Center, 79-01 Broadway, Elmhurst, NY 11373.

dropping the “volitional prong” of the insanity defense. Among those who proposed this change was the American Psychiatric Association.<sup>2</sup> OCD is a fruitful area in which to examine the relationship between cognition and volition because it is a psychiatric entity in which by definition some cognitive appreciation is preserved but behavioral control is impaired.

*History of the Volitional Prong* In jurisdictions that still make the defense of insanity available to defendants, the “cognitive prong” is almost invariably present in a form relatively unchanged from that articulated by the English court in the case of Daniel McNaughton in the 1850s: a defendant is not legally responsible if he did not “know the nature and quality of the act he was doing, or, if he did know it, that he did not know he was doing what was wrong.”<sup>3</sup> The “volitional prong,” a later addition, has been much less consistently implemented. In its original incarnation as the “irresistible impulse” test, a defendant was lacking in culpability if his action was the product of an “irresistible or uncontrollable” impulse.<sup>3</sup> Depending on the jurisdiction, cognitive symptoms of psychosis (e.g., delusions) may or may not have been a required part of the impulse to meet the threshold for an insanity acquittal.<sup>4</sup> Thirty years ago, the American Law Institute adopted both cognitive and volitional criteria in its proposed insanity defense, emphasizing with regard to the volitional component not the “irresistibility” of the impulse but rather the actor’s “substantial [in] capacity” to “conform his conduct to

the requirements of the law.”<sup>5</sup> The changes in the statutory criteria reflected in part changes in psychiatric understanding of mental illness and behavior.

More recently, the trend has been toward eliminating the “volitional prong” in any form from the insanity defense. Respected experts in the field of law and psychiatry as well as the APA and the ABA proposed such a change.<sup>2, 3, 6</sup> Based in large measure on such proposals and on the uproar over the John Hinckley verdict in 1983, the Federal government’s 1984 Insanity Defense Reform Act replaced the ALI Model Penal Code-based federal statute with a purely cognitive statute, stripped of the “volitional prong.”<sup>3</sup>

The APA gave several reasons for its proposal to drop the “volitional prong”: (1) Psychiatric information regarding cognition is more reliable than that regarding volition, reflecting the considerable difficulty in discerning the difference between “an irresistible impulse and an impulse not resisted.” (2) There is disagreement among psychiatrists with regard to the concept of volition. (3) Testimony regarding volition confuses juries. (4) Dropping the volitional prong would have no practically significant effect for defendants because of the “considerable overlap” between “understanding or appreciation and [a psychotic’s] ability to control his behavior.” The APA statement continues, “Most psychotic persons who fail a volitional test for insanity will also fail a cognitive-type test when such a test is applied to their behavior, thus rendering the behavior superfluous in judging them.”<sup>2</sup>

**Measuring Capacity for Control** Currently, there are no reliable ways of independently testing level of control. Empirical studies of volition from a purely psychological perspective have been done, but the scientific validity of such studies remains controversial.<sup>7</sup>

Impulse control has been linked to biological systems, especially the serotonergic system.<sup>8-10</sup> However, the behaviors described in general are defined in those which there was evidenced a propensity to act quickly without significant forethought. Such behavior is at best but one example of the decreased internal control addressed by the volitional prong<sup>11</sup> and often may represent actions by persons who have the capacity for control but choose risk-taking behavior.

More significantly, a verifiable point at which the loss of control reaches a threshold beyond which it is unreasonable to expect a person to control himself has not been identified. We are left, then, to rely on self-report in assessing an individual's level of control. Clearly with regard to behavior that has legal consequences there would exist considerable impetus for defendants to exaggerate lack of control in order to minimize responsibility. By studying legally and morally neutral behavior in OCD, the data generated by self-report should be free of that bias.

**OCD and Insight** Just as the ALI has recognized that knowledge can range from simple cognition to deeper appreciation,<sup>5</sup> so too a range of insight has been recognized within OCD. There are suggestions that level of insight is a factor in control of associated compulsive be-

havior inasmuch as OCD patients with overvalued ideas or schizotypal personalities respond less well to treatment. However, there are also suggestions that level of insight is not a factor in control. Jenike *et al.*<sup>12</sup> reported that pure cognitive therapy does not work well for OCD patients. Rachman and Hodgson<sup>13</sup> reported that treatment response varies inversely with duration, while the same study indicated that insight varied directly with duration. To our knowledge there are no published reports directly addressing the relationship, if any, between insight and control in OCD.

Utilizing the Yale-Brown Obsessive-compulsive Scale (Y-BOCS),<sup>14, 15</sup> a clinician rated, ten-item scale to be discussed in more detail below, two issues will be addressed: (1) Does the overlap between the insight and control assumed by the APA to be present in psychotic persons apply to other groups whose lack of control is such that they might in some jurisdictions be considered as candidates for the insanity defense? (2) If, as anticipated, in OCD there appears to be little or no relationship between a patient's insight and his subjective sense of control over behavior, can the clinical understanding of anxiety disorders such as OCD suggest a more subtle understanding of the concept of insight, an understanding that supports the interplay between cognition and volition upon which the APA based its recommendations?

### Subjects and Methods

Sixty-four subjects meeting DSM-III-R criteria for a principal diagnosis of OCD

were drawn from a consecutive list of patients evaluated and treated at the Clinical Neuroscience Research Unit of the Connecticut Mental Health Center, New Haven between December 1985 and October 1987. Data on eight of the 64 patients was not available at the time of this study.

Of the 56 remaining subjects, 24 were male (mean age  $\pm$  SD =  $34.7 \pm 11.5$  years) and 32 were female (mean age =  $37.9 \pm 12.9$  years). The OCD symptoms reported by the subjects were representative of those typically seen in clinical practice; 22 patients (39%) had a secondary diagnosis of depression. All subjects granted written informed consent to participate in research protocols involving biological evaluation and drug treatment of their condition.

The Y-BOCS is a clinician-rated, ten-item scale designed to provide a specific measure of the severity of symptoms of OCD that is not influenced by the type of obsessions or compulsions present. The ten items measure the severity of the cardinal symptoms of OCD, obsessions and compulsions, on a scale of 0 ("no symptoms") to 4 ("extreme symptoms") with regard to how much they occupy the patient's time, interfere with normal functioning, cause subjective distress, are actively resisted by the patient, and how much control they experience over the symptoms. These items and the total Y-BOCS score (the sum of the ten items) have been demonstrated to have high interrater reliability, a high degree of internal consistency,<sup>14</sup> as well as a high degree of validity as measures of OCD severity.<sup>15</sup> Items 11 and 12 ("in-

sight" and "avoidance," respectively) were, at the time of the initial studies, in the investigational component of the Y-BOCS. The insight item rates the patient's insight into the "senselessness or excessiveness" of his/her thoughts or behaviors at the time of the interview on the 0 to 4 scale with 0 defined as "excellent insight, fully rational" and 4 defined as "lacks insight, delusional. Definitely convinced that concerns and behavior are reasonable, unresponsive to contrary evidence." The avoidance item rates the degree to which the patient avoids "anything, going any place, or being with anyone because of [his/her] obsessional thoughts or out of concern [he/she] will perform compulsions."<sup>14</sup> For the purposes of this study the interrater reliability of the insight and avoidance items was evaluated and found to be roughly equal to that of the ten items in the initial study.

The Y-BOCS was administered by trained research nurses and research psychiatrists familiar with the scale. The patients were drug-free at the time of administration, except for those taking benzodiazepines, which were prescribed for sleep on an as needed basis. Data, for the present study, were generated by recording the baseline scores on 12 individual items as well as the global severity and total Y-BOCS items. The baseline ratings were chosen in order to view a representative group of OCD patients at a similar point with respect to treatment.

Pearson's correlation coefficients were calculated to assess the associations between individual items as well as be-

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tween individual items and the global severity and total Y-BOCS scores. Specific attention was paid to the associations between the insight item and the control over compulsions item and the other individual items. The insight item was then dichotomized into high insight (item score 0 or 1) and low insight (item score 2, 3, or 4) groups. *T* tests (two-tailed) were run between the high and low insight groups with respect to the total Y-BOCS score (a measure of the overall severity of the OCD pathology present) and the mean individual scores on the resistance, control, and avoidance items for both obsessions and compulsions.

### Results

Scores on the experience of control over compulsions item ranged from 1 ("usually able to exercise voluntary control") to 4 ("no control"). Scores on the insight item ranged from 0 ("excellent insight") to 3 ("poor insight"). No patient scored a 4 ("delusional") on the insight item. This result is consistent with the diagnosis of OCD, which by definition requires some insight into the irrationality of the symptomatology, though the level of such insight is variable.

With regard to the control over compulsions item, statistically significant correlations were demonstrated between this item and resistance to obsessions ( $r = .27, p < .04$ ), control over obsessions ( $r = .31, p < .02$ ), time spent on compulsions ( $r = .45, p < .0005$ ), interference from compulsions ( $r = .59, p < .0001$ ), distress over compulsions ( $r =$

$.49, p < .0001$ ), resistance to compulsions ( $r = .35, p < .0089$ ), global severity ( $r = .36, p < .007$ ), and total Y-BOCS ( $r = .61, p < .0001$ ).

No statistically significant correlation was found between the control over compulsions item and the insight item ( $r = .06, p < .65$ ). Nor were statistically significant correlations demonstrated between the insight item and resistance to compulsions ( $r = .085, p < .53$ ) or avoidance ( $r = .22, p < .13$ ). The insight item was, however, correlated with the control over obsessions ( $r = .29, p < .02$ ).

When the insight item was dichotomized into high and low groups, 37 patients fell into the high insight group (scores of 0 "excellent" or 1 "good") and 19 patients were in the low insight group (scores of 2 "fair" or 3 "poor"). *T* tests failed to demonstrate a significant difference between the high and low insight groups with respect to control over compulsions ( $p < .2$ ), but the high insight group had significantly lower scores (experience of more control) on the control over obsessions item (mean score = 2.5 [ $\pm .9$ ],  $p < .02$ ). The high insight group also had significantly lower total Y-BOCS scores, representing less severe overall OCD pathology (mean = 24.4 [ $\pm 5.5$ ],  $p < .04$ ). No other significant differences were found between the high and low insight groups with respect to the other scores examined.

### Discussion

Although the self-report of OCD patients regarding their experience of control over their behavior may indeed be

more reliable than the self-report of persons for whom admissions about behavioral control may have legal consequences, our findings are still limited by the inherent difficulties of dealing with data that cannot be verified objectively. It is also important to note that the findings are by definition limited to patients with OCD and thus their generalizability to other patient or nonpatient populations is speculative at best. Of specific relevance in this regard is the question as to whether legally relevant behavior is so fundamentally different from OCD behavior that comparisons are unwarranted.

Still, these results begin to answer the question posed in the foregoing: Does the overlap between insight and control assumed by the APA to be present in psychotic persons apply to nonpsychotic persons?

As described earlier, the relationship between insight and control in OCD is complicated, with parameters such as duration of illness and treatment response indirectly suggesting that there may be or may not be a correlation. The present study demonstrated no statistically significant positive or negative correlation between insight and control either via the Pearson correlations or when the insight item was dichotomized into high and low groups. Neither were significant correlations demonstrated between insight and avoidance or resistance (items that reflect actions that can be viewed as responsible reactions to unwanted thoughts—to avoid places or things that stimulate certain behaviors and to attempt to resist such behaviors).

Of note is that the insight item was positively correlated with control over obsessions. Thus, insight is not totally irrelevant, rather it did not translate into an increased subjective sense of control over behavior.

However, although insight into the irrationality of behavior may be preserved in OCD as an anxiety disorder (a classification based on the internal experience of the anxiety and frustration patients feel especially when their rituals are interrupted), there are other cognitive changes associated with the behavior that can be uncovered.<sup>16</sup>

Beck<sup>16</sup> suggests that as with depression there are typical cognitive distortions that accompany anxiety. Persons with anxiety misinterpret internal (often physical) or external cues, fear specified or unspecified danger and their “consciousness becomes saturated with thoughts or images of a threatening nature.” In anxiety states, there may be difficulty concentrating, difficulty with short-term memory, arbitrary inferences, overgeneralization, catastrophizing, selective attention to stimuli, loss of perspective, and dichotomous thinking (black or white conclusions regarding safety or lack thereof).<sup>16</sup> (From his legal perspective, Morse’s<sup>17</sup> definition of compulsions as “hard choices” presupposes the interrelation between compulsion/anxiety and cognition that Beck describes. Whereas anxiety as an emotion cannot be classified rational or irrational, according to Beck, the associated fears can be so evaluated. Thus, one can indeed usefully apply a cognitive standard to nonpsychotic anxiety disorders.

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In the ALI Model Penal Code, the need for statutory language that reflected a broader understanding than "simple" cognition was clearly recognized, and the fuller, more sensitive "appreciate" was substituted for the narrower, more concrete "know" in the cognitive prong of the proposed insanity statute.<sup>5</sup> Appreciation, the ability to "to estimate aright, . . . to be sensitive to delicate impressions or distinctions" may be affected by the cognitive distortions outlined above even when factual knowledge remains intact.<sup>18</sup> In many jurisdictions, even those such as New York State and the Federal in which the volitional prong does not exist, a cognitive prong modified along the lines of the ALI Model Penal Code remains.<sup>1, 8, 19</sup>

Thus, though Beck<sup>16</sup> describes anxiety as an "intensely unpleasant emotion" that "impels a person [to act] to reduce it," one need not revive the controversy over the difficulty in measuring internal control by viewing the disorder as one in which pure emotion impels action. The clinical understanding of anxiety is as a mental state in which (as with all mental states) every system is affected: physiologic, cognitive, motivational, emotional, and behavioral.<sup>16</sup> One can explain irrational behavior, then, through any of its associated systems. In his philosophical treatise on the insanity defense, Fingarette<sup>20</sup> argued, similarly, that the cognitive and volitional prongs are not distinct criteria, rather they represent two ways of describing a person's irrational state.

In affirming the reasonableness of the change to an appropriately broad cog-

nitive standard for the insanity defense, as proposed by the APA, questions remain unanswered. Even if a cognitive standard can be applied in a wide range of disorders, should insanity pleas be restricted to defendants who meet criteria for a psychotic disorder? How should we define the threshold for cognitive distortion that would constitute a successful defense of insanity? These questions raise issues of public policy and moral philosophy that are beyond the scope of this paper.<sup>17</sup>

### Summary

In this paper we have examined the relationship between insight and control in OCD patients in an effort to explore one of the APA's hypotheses upon which their recommendation for changes in the insanity defense were based, i.e., that there is enough of an overlap between a defendant's insight and his ability to control his behavior such that insanity defense statutes need not retain a criterion based solely on loss of volitional control. Utilizing the Yale-Brown Obsessive-Compulsive Scale, we found that in OCD patients the experience of volitional control is not significantly related to the level of insight they have into the irrationality of their behavior. Insight into irrationality, however, is a relatively gross measure of cognitive disturbance; there are more subtle cognitive changes that can be identified in patients with anxiety disorders. The presence of these subtle, but well-described changes supports the hypothesis that there is an overlap between insight and control, even in nonpsychotic groups.

The nature of volitional control remains a rich area for study. Biologically, the search for verifiable physical markers of decreased control continues. Clinically, we can continue to explore interventions, biological and psychological, that improve a person's experience of control. Philosophically, we need to constantly be vigilant as to what we mean by the exercise of human will and how we understand those who appear to lack this will power. Our understanding of compulsion, impulsiveness, and volition can also improve through continued refinement of models with which we explore these areas. It is hoped that this paper represents a step in this important direction.

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