CME ACTIVITY

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CME Objectives

After completing this CME activity, the psychiatrist should be able to:

- Recognize that hoarding is a fairly common behavior, and in extreme cases can greatly interfere with functioning in many aspects, e.g., social, occupational, and domestic.
- Realize that hoarding is not a diagnosis as such but a symptom common to 5 major diagnoses, and be able to name and differentiate these diagnoses.
- Recognize that patients who hoard have several similar qualities independent of their underlying diagnoses, and be able to name them.
- Recognize the characteristics and comorbid diagnoses associated with OCD patients who hoard.
- Explore the various kinds of treatments for hoarding behavior, including biological, psychological, and social therapies, their efficacies, and the difficulties encountered with compliance.

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Hoarding: A Symptom, Not a Syndrome

Claire L. Damecour, M.D., F.R.C.P.C.; and Maryse Charron, M.D., F.R.C.P.C.

Background: Hoarding behavior in humans spans a continuum from normal collecting to pathological self-neglect and can be associated with a variety of psychiatric disorders.

Method: The authors summarize research in the past 15 years characterizing hoarding behavior in groups of college students, in nonclinical populations of self-named "pack rats," in outpatients treated for obsessive-compulsive disorder (OCD), and in individual pathological hoarders presented in psychiatric case reports. Two new case reports of pathological hoarding are presented here.

Results: The literature suggests, as do the 2 case reports presented, that certain factors may be common to all groups of hoarders, as they all show poor insight, lack of resistance to the compulsion to hoard, and poor treatment motivation.

Conclusion: Possible biological and psychosocial determinants of pathological hoarding include association with schizophrenia, OCD, and tic disorders, as well as a possible link through the neurotransmitter dopamine. Management issues range from psychopharmacologic treatment with antipsychotic medication to behavioral therapy and environmental manipulation.

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Received Feb. 26, 1997; accepted Oct. 20, 1997. From the Department of Geriatric Psychiatry, Louis H. Lafontaine Hospital, Montreal, Canada.

Reprint requests to: Claire L. Damecour, M.D., F.R.C.P.C., Service de Psychiatrie Geriatrique, Hopital Louis H. Lafontaine, 7401, rue Hochelaga, Montreal, Quebec, Canada, H1N 3M5.

As defined by Frost et al.,[1] hoarding is the acquisition of and failure to discard large numbers of possessions that appear to be useless or of limited value. Hoarding spans a continuum from normal collecting to pathological self-neglect and can be associated with a number of disorders, most frequently organic mental disorders,[2] psychotic disorders,[3] eating disorders,[4] obsessive-compulsive personality disorder,[5] and obsessive-compulsive disorder (OCD).[6]

Frost et al.[7] note that hoarding behavior, although not as frequent as the classical OCD symptoms, is common in OCD patients, with 31% of 39 patients reporting hoarding obsessions and 26% of 39 reporting hoarding compulsions. In a larger study,[6] 18% of 200 OCD patients reported hoarding. Recently, Baer[8] reported the results of a study of symptom subtypes in 107 OCD patients using the Yale-Brown Obsessive Compulsive Scale (Y-BOCS).[9] The compulsion to hoard was significantly correlated with symmetry and saving obsessions as well as with repeating compulsions. These 4 symptom categories were grouped in a factor with ordering and counting; this factor accounted for 20.7% of the variance in a principal component analysis of OCD. In a similar study with 615 patients, Hantouche and Lancrenon[10] found that hoarding was the sixth largest factor in OCD, after fear of contamination/illness, perfectionism and precision, cleaning compulsions, aggressive obsessions, and superstitions. Among college students, those who scored high on self-report measures of OCD symptoms reported hoarding on the Y-BOCS symptom checklist 40% to 50% of the time.[7]

In a nonclinical population (i.e., respondents to a newspaper advertisement asking for volunteers who were "pack rats"), hoarding was associated with higher levels of general psychopathology as measured by the Brief Symptom Inventory (BSI) and higher levels of distress as measured by the General Distress Index and the Positive Symptom Distress Index,[7] and hoarders sought therapy more often than did nonhoarders.[11] Frost et al.[7] compared hoarders with nonhoarders. The authors defined the first group by a score of above 70 on the Hoarding Scale,[11] and found they differed from nonhoarders in every category of the supplementary items on the Y-BOCS. Hoarders showed less insight, more avoidance, more pathological doubting, and greater general severity of OCD symptoms and had more general symptoms of OCD and more OCD target symptoms than did nonhoarders.

In attempting to better define the characteristics of hoarders in a nonclinical population (i.e., respondents to a newspaper advertisement), Frost and Gross[11] utilized a series of structured interviews and questionnaires. Saving behavior appears to begin in childhood or adolescence;

81% of self-described "pack rats or chronic savers" said their behavior started before 24 years of age. In this same group, 85% had first-degree relatives whom they regarded as "pack rats," and only 54% of the nonhoarders had such relatives, a significant difference. Subjects reported saving over 100 different types of items, clothing and paper products dominating the list, and tended to save the same kinds of things as nonhoarders. Most of the subjects (84%) reported that they and their relatives "often" or "sometimes" found their behavior problematic or bothersome. Fewer hoarders than nonhoarders were married. The majority of hoarders bought extra food, household supplies, and/or toiletries in order never to be caught without them and were more likely than nonhoarders to carry "just-in-case" items. Hoarders had higher scores on the Multidimensional Perfectionism Scale, having high scores in the concern over mistakes subscale, and on the Indecisiveness Scale.[12]

In a later study, Frost et al.[1] studied patterns of usage of possessions in relation to hoarding among a group of undergraduates and a group of community volunteers. Hoarders used their possessions less often and were very concerned about maintaining control over them. There was no association between hoarding and either maternal deprivation or a greater concern for the environment. However, hoarding was associated with a greater sense of responsibility for being prepared and responsibility for the well-being of the possession. Not only did hoarders tend to be overly emotionally attached to their possessions, they also perceived their possessions as sources of comfort and security.

Greenberg[13] and Greenberg et al.[2] described a total of 12 cases of pathological hoarding encountered in psychiatric practice. In the earlier report (1987),[13] the 4 patients described demonstrated a remarkably consistent picture, gradually starting to hoard objects in their third decade of life, initially denying their hoarding unless confronted and then minimizing and rationalizing the behavior and experiencing no resistance to their hoarding. Hoarding preoccupied them to the detriment of their personal lives and employment. None were interested in behavioral psychotherapy, and none maintained regular contact with the clinic. Only legal pressure forced them to limit their behavior. After several years of follow-up, no further deterioration occurred and no clear psychotic features were ever noted. The author suggested a diagnosis of obsessive-compulsive disorder. In 1990, Greenberg et al.[2] described an additional 8 patients and came to the conclusion that hoarding is a varied symptom that occurs in a range of clinical conditions, from obsessive-compulsive disorder to schizophrenia and paranoid disorders to organic mental states. The patients with OCD were characterized by poor general functioning, limited insight, absence of resistance, secretiveness, denial concerning their collections, and a tendency to blame others for their hoarding. No psychotic features were present. The patients with schizophrenic disorders hoarded bizarre objects secondary to paranoid delusions. Two cases of primary degenerative dementia were described in which both patients showed marked self-neglect, disorientation, and memory impairment. The authors noted that in 5 of the 8 cases, the patients' control over hoarding behavior deteriorated after the death of or separation from a spouse or parent. Vostanis and Dean[14] described 2 cases of hoarding of rubbish and self-neglect. These patients had a long history of generally stable behavior and no confirmed psychotic symptoms. They were not distressed by their behavior and were not making any attempts to resist. They had few contacts, were suspicious, and rejected any help that was offered. Environmental manipulation was described as the most appropriate treatment.

We present 2 psychiatric inpatients with a primary management problem of pathological hoarding, but with 2 very different clinical presentations. These 2 elderly patients were admitted to the geriatric psychiatry ward of a large psychiatric institution within a 6-month period.

CASE REPORTS

Case 1

Mr. A, a 67-year-old man, came voluntarily, accompanied by his wife and brother, to psychiatric emergency services under the recommendation of the local community services. Because he wished to prove that there was nothing wrong with him, he collaborated fully. The city had temporarily evicted him from the apartment that he rented after a visit from the fire department revealed that every free space in every room was filled to the ceiling with accumulated junk. There was a walkway space from the front door to the kitchen and to the bedroom, permitting movement through an area 6 feet long by 1 foot wide. The bed, chairs, table, and counter space all were taken up with the collection, and one could not open the refrigerator nor any of the cupboards or closets without having to remove piles of rubbish. All day, Mr. A combed the streets to find "valuable" "recyclable" objects, including broken chairs, old clothes, broken toys, carpets, and lamps. Because access to cupboards and the refrigerator was blocked, his wife was totally dependent upon him to remove things in order to make a meal. Likewise, to go to bed at night, she was also obliged to wait for him to clear off the bed.

Mr. A's hoarding behavior degraded from a lifelong tendency to repair and accumulate objects after he retired from his work on the shipping docks 7 years previously. The city had already emptied the apartment 2 years earlier, and the patient bore a grudge toward the city employees, insisting that he had lost many precious objects. Mr. A believed that several people were involved in the plot to take his things out of jealousy and threatened to wreak vengeance on them through his prayers. He insisted he did not require any help to clean up the apartment and resented the implication of social services.

His brother noted that since birth, Mr. A was not like the other children. Born small, he required an incubator the first days of his life. He was slower than the others, had speech problems, and was unable to pass the third grade after repeated attempts. He had an older sister who collected old clothes and insisted that her children wear them, to the point that she was considered "crazy" by the family.

Mr. A cooperated with all testing during his stay in hospital. Results of a computed tomography (CT) scan of the head were normal except for the presence of minimal frontal atrophy. A dementia workup showed no anomalies, and a neuropsychological testing battery revealed limited intelligence, very concrete thought processes, and poor vocabulary. Neuropsychologists concluded that there was no sign of recent deterioration and suggested a developmental limitation combined with poor sociocultural stimulation. While on the ward, Mr. A was noted to accumulate his daily menu cards as well as tissue papers he considered "still good," but did not resist when staff members threw them out.

The diagnosis at discharge was absence of pathology on Axis I with borderline intellectual functioning and paranoid personality disorder on Axis II. A short trial of a low dose of a high-potency neuroleptic did not improve his paranoid ideation, and the medication was stopped. With the collaboration of the local community center, limits on hoarding behavior were imposed by using the threat of rehospitalization. He promised to cooperate with all measures, yet continued to minimize his behavior, and threatened to move out of the sector to avoid harassment. Five months later, the community center reported that Mr. A had begun again his collection of "recyclable" objects and refused the social worker access to his home. According to his landlord, the floor in the front room was already completely covered with a variety of objects collected from the garbage.

Case 2

Ms. B, a 67-year-old recently widowed woman, was brought to psychiatric emergency services after having called the police several times to complain of someone watching her. They found her distressed and incoherent, in a stained nightdress and smelling of urine. Accumulations of empty boxes of take-out food, newspapers, clothes, cans, empty cartons, and a variety of other objects occupied the majority of the space in her single-family dwelling.

In the first few days of hospitalization, Ms. B was disorganized in her behavior and speech, seeming to pay attention to visual and auditory hallucinations and displaying bizarre and repetitive movements, and also showed disinhibition and temporo-spatial disorientation. She refused to cooperate with psychiatric examination, continually demanding her discharge. She admitted to her children that she believed that the nurses and doctors were plotting to kill her and that they were taking her picture and listening to all of her conversations.

Family members recounted how Ms. B's behavior had gradually deteriorated in the past 3 years. She was housebound and had the complete care of her husband, who suffered from advanced Parkinson's disease, and the couple began to sleep during the day and stay awake long hours at night. Ms. B's husband was an alcoholic, and she often accompanied him in his drinking. They isolated themselves from others and ceased all social activities, even refusing to answer the phone and the door and refusing to allow their children to visit at Christmas. Neither ever left the house, ordering in all they needed. The accumulation of various useless objects began about 2 years before admission, in stark contrast to her normally meticulously clean household. The family became aware of the extent of the hoarding behavior 6 months ago when a technician called in to fix the furnace had threatened to call the fire department and have the house condemned.

Ms. B's husband died at home of a heart attack 3 months before her admission. At the funeral, the children noticed that their mother was confused, was disoriented for time and place, and obstinately refused all help. The house was completely filled with accumulations of garbage, papers, boxes, and other collected objects to the point that in several rooms entrance was impossible. Everything, including over 200 empty wine bottles, was cleaned out by the family members, who noted that the work had to be redone only 2 months later. She became incontinent of urine but refused to wear the pads bought by her daughter, and eventually her mattress had to be thrown out. Six weeks before admission, Ms. B complained that she had been robbed of various objects within her home, that she was being photographed, and that "they" listened to her conversations. She called her son to

complain that her neighbor had plotted to kill her and that the police were accusing her unjustly of theft. It was then that she contacted the police herself, which precipitated the admission to hospital.

After several weeks of antipsychotic therapy, Ms. B was much less paranoid, and she cooperated with examination. She minimized or denied all reference to persecutory delusions, hallucinations, or hoarding, past and present. She maintained that she was completely competent to return to her home and see to her affairs without outside interference. There was no manifestation of hoarding behavior during hospitalization. A dementia workup showed no metabolic anomalies. A CT scan of the head showed moderate diffuse symmetrical cerebral atrophy. A neuropsychological testing battery revealed signs of frontal/subcortical disease with important memory deficits, especially in encoding and retrieving information. Despite normal language and attention/concentration, her performance on cognitive tasks was marked by interference from earlier tasks and by confabulation. The diagnosis at discharge on Axis I was cognitive disorder with delusions, possibly secondary to chronic alcohol intake. She was maintained on a low dose of a high-potency antipsychotic and discharged to a residence for nonautonomous elderly persons with the agreement of family members.

DISCUSSION

These 2 elderly patients share in common several aspects of hoarding behavior, despite their different diagnoses and treatment. In both cases, the hoarding behavior was exacerbated after important life stressors: death of a spouse and retirement. These patients showed limited, if any, insight into and a tendency to deny, rationalize, and minimize hoarding behavior. They did not resist in any way the compulsion to accumulate objects and were not motivated to change their behavior. Cooperation with medical treatment was absent or superficial (except for Ms. B after she began taking antipsychotic medication). They became angry when family members or other persons removed their collections, and they felt unjustly persecuted. These features of limited insight, lack of resistance, and refusal of treatment have been described in all 14 case reports of pathological hoarding cited in the literature. Perhaps there is some common pathogenesis of hoarding behavior, despite the differing clinical presentations.

Pathogenesis of Hoarding Behavior

Hoarding behavior most likely has biological/neurological as well as psychosocial determinants. Several authors have tried to explain the pathogenesis of hoarding behavior. Luchins[15] proposes that this behavior may have a neurobiological basis similar to other bizarre, repetitive behaviors frequently seen in deteriorated schizophrenic patients[3] and could therefore be treated by dopamine antagonists such as the antipsychotics. Although Greenberg et al.[2] do not mention treatment in the majority of their case studies, in 1 case, diagnosed as primary degenerative dementia with delusions, compulsory hospitalization and neuroleptic treatment resulted in marked improvement. Similarly, in the case of Ms. B, antipsychotic medication greatly improved cooperation with medical management and reduced bizarre behavior, including hoarding.

In a factor analysis of symptom subtypes of OCD as measured by the Y-BOCS, Baer[8] similarly suggested that antipsychotics would be useful in treating OCD patients with marked hoarding symptoms. Baer found that 3 factors, named *symmetry/hoarding*, *contamination/cleaning*, and *pure obsessions*, best explained symptoms in OCD. The first factor had high factor loadings from symmetry and saving obsessions and from ordering, hoarding, repeating, and counting compulsions. Baer suggested that these patients are tormented by an inner sense of imperfection and felt that their actions were never completely achieved to their satisfaction. Baer's study also suggested that OCD patients who hoard have a higher risk of suffering from a comorbid tic disorder, a neurologic illness treated primarily with neuroleptics.

Frost and Gross[11] suggest that hoarding is a manifestation of a drive to perfectly control the environment in order to prevent potential disasters. Frost and Shows[12] found scores on the Indecisiveness Scale to be highly correlated with the Hoarding Scale in normal subjects and suggest that hoarding is in a large part a problem of indecision about future need and about the cost of discarding a possession that may be needed later. Their conclusions may not necessarily be generalized to clinical populations, however, because they did not study patients. Nevertheless, it is possible that some of the "normal" subjects with very high scores on the Hoarding Scale, as well as the self-identified "pack-rats," were in fact suffering from undiagnosed OCD. Concluding their 1993 study, Frost and Gross state that "hoarders have difficulty making decisions, especially about throwing things away. When faced with the decision to discard a possession, they tend to make the 'safe' choice by saving. Saving allows the hoarder to avoid the decision required to throw something away, and the worry that accompanies that decision."[11(p379)] Therefore, in multiple ways, chronic saving behavior may be behaviorally reinforced.

The elderly person must cope with many important stressors including the death of a spouse, retirement, and diminished cognitive and physical capacities brought on by aging. The accumulation of these stressors threatens the elderly person with a loss of control. Hoarding behavior in the elderly may represent a compensatory defense mechanism against this threat.

Treatment of Hoarding Behavior

The efficacy of treatment for this behavior has not been determined, as this type of compulsion has been underrepresented in the behavioral treatment literature.[16] Several authors have reported some success, however, in treating individual patients who have hoarding compulsions with behaviorally oriented therapy. Houten and Rolider[17] describe a behavioral treatment that was effective in a multiply handicapped 17-year-old girl who stole and hoarded food. This treatment involved "recreating the scene" in which the food was stolen and administering a punishment contingent on the undesired behavior. Lane et al.[18] used teaching of a socially appropriate form of hoarding (collecting baseball cards) and teaching an appropriate way to dispose of trash to decrease hoarding in a brain-injured male. Duvinsky et al.[19] used a contingency management procedure to reduce the stealing, trading, and hoarding of high-sugar foods by a male psychiatric patient with diabetes.

Hogstel[20] recommends determining the underlying need fulfilled by the hoarding behavior before deciding on appropriate interventions for a specific individual. Hogstel offers a variety of possible interventions, such as arranging for activities outside the patient's home, transferring hoarding behaviors to safer objects, rewarding behaviors that reduce hoarding, arranging for group discussion, and establishing contracts to limit the amount of objects accumulated. Hogstel warns against confronting or arguing with the patient about the hoarding behavior and recommends never removing personal objects without obtaining the patient's consent.

In the elderly it may be possible to reduce hoarding behavior by addressing the age-related losses in cognitive and physical capacities and limiting their impact through a combination of psychopharmacologic, psychotherapeutic, and environmental approaches. Treatment of an underlying neuropsychiatric illness, if possible, may correct the hoarding behavior. In our 2 case reports, the behavior was kept in check by outside parties, that is, community services or institutional placement. The management of the hoarding behavior often poses the greatest clinical challenge, independent of the underlying diagnosis. Most hoarders are unwilling to change their behavior but are not incapable of such changes if they wish to avoid hospitalization, fines, fees, or other negative consequences.

CONCLUSIONS

Despite the evidence that hoarding behavior is common and potentially detrimental, surprisingly little research has been done in this area, and consequently many questions are unanswered. Careful clinical observation and well-planned scientific experimentation are needed to develop a better understanding of the pathogenesis of hoarding and to propose more effective treatment. Because hoarding is a symptom common to a number of psychiatric disorders, future research should focus on groups that are homogeneous for diagnosis as defined by the DSM-IV.

For the clinician faced with the problem of a patient with pathological hoarding behavior, the first step is to try to determine the underlying psychiatric disorder. There are 4 important diagnoses to consider. First, the cognitive disorders, including dementia and mental retardation, can be suggested from bedside mental status testing and history taking (especially from family members) and confirmed by neuropsychological testing. Second, in psychotic disorders, such as schizophrenia or delusional disorder, patients' hoarding behavior typically is bizarre and based on delusional references. Third, eating disorders can be evident from the physical examination, as in anorexia nervosa, or can be suggested from the preoccupation with weight control and body image, which is also present in normal-weight bulimic individuals. Finally, obsessive-compulsive disorder, perhaps the most frequently diagnosed disorder in hoarders, requires a complete psychiatric examination to delineate other possible obsessions and compulsions. Use of the Y-BOCS can be helpful in this regard, although it is possible that a patient may be a "pure" hoarder, having only the obsession and compulsion of hoarding and no other.

Once the hoarder's diagnosis is determined, the next step is treatment. It is the authors' best clinical judgment that, first and foremost, the underlying psychiatric disorder must be treated. In some cases, such treatment will sufficiently eliminate hoarding symptoms. In others, however, as in the case of Mr. A, either no treatment is possible or the behavior persists despite all treatment efforts. In terms of psychopharmacologic treatment, it is possible that serotonin reuptake inhibitors used in OCD may have some effect on reducing hoarding behavior, independent of the comorbid diagnosis. A short-term trial of low-dose,

high-potency neuroleptics may be attempted, as in the case of Mr. A, who had some paranoid ideation but who was not delusional, but if no improvement is seen, such a trial should not be continued. Behavioral psychotherapy may offer some ideas to treat hoarding, for example, using thought-stopping procedures as well as response blocking. More often, environmental controls, such as limiting the space available in which to hoard, limiting access to hoardable objects, and periodically throwing out the collection, become necessary when hygiene and safety are compromised.

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DISCLOSURE OF OFF-LABEL USAGE

The following agents mentioned in this article are *not* indicated for treatment of hoarding behavior: neuroleptics for hoarding in nonpsychotic patients, and serotonin reuptake inhibitors in hoarding when there is no diagnosis of OCD.

Instructions

Psychiatrists may receive 1 hour of Category 1 credit toward the American Medical Association Physician's Recognition Award by reading the article starting on page 267 and correctly answering at least 70% of the questions in the quiz that follows.

1. Read each question carefully and circle the correct corresponding answer on the Registration form.
2. Type or print your full name, address, phone number, and fax number in the spaces provided.
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1. What portion of OCD patients have hoarding obsessions or compulsions?
a. Half
b. One tenth
c. One third
d. Three quarters
e. Less than one tenth

2. Compared with OCD patients who do not hoard, hoarders show:
a. More insight
b. Less doubting
c. Greater general severity of OCD symptoms
d. Greater capacity to resist obsessions
e. Less denial

3. Hoarding has been shown to be associated with:
a. Maternal deprivation
b. Environmental concern
c. Strong emotional attachment to possessions
d. Age
e. Sex

4. Hoarding can be a symptom of which of the following psychiatric illnesses?
a. OCD
b. Psychosis
c. Dementia
d. Anorexia nervosa
e. All of the above

5. OCD patients who hoard, as opposed to non-hoarders, have a higher incidence of what comorbid disorder?
a. Anemia
b. Obsessive-compulsive personality disorder
c. Tic disorder
d. Alzheimer's dementia
e. Anorexia nervosa

6. Which of the following treatments has been proved efficacious in hoarding?
a. Behavioral psychotherapy
b. Group discussion
c. Neuroleptics
d. SSRIs
e. None of the above

7. The patient who hoards packages of sugar because "sugar is energy and God is energy, so sugar is God" is suffering from:
a. Anorexia nervosa
b. OCD
c. Schizophrenia
d. Dementia
e. Mental retardation

Answers to the November 1997 CME quiz

1. e 2. d 3. d 4. b 5. e 6. e 7. b

Circle the one correct answer for each question.

1.	a	b	c	d	e
2.	a	b	c	d	e
3.	a	b	c	d	e
4.	a	b	c	d	e
5.	a	b	c	d	e
6.	a	b	c	d	e
7.	a	b	c	d	e

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Please evaluate the effectiveness of this CME activity on a scale of 1 to 5 (1 being poor, 5 being excellent).

1. Overall quality of this CME activity ____
2. Content ____
3. Format ____
4. Faculty ____
5. Achievement of educational objectives:
   - A. Enabled me to recognize that hoarding is a fairly common behavior, and in extreme cases can greatly interfere with functioning in many aspects, e.g., social, occupational, and domestic. ____
   - B. Enabled me to realize that hoarding is not a diagnosis as such but a symptom common to 5 major diagnoses, and enabled me to name and differentiate these diagnoses. ____
   - C. Enabled me to recognize that patients who hoard have several similar qualities independent of their underlying diagnoses, and enabled me to be able to name them. ____
   - D. Enabled me to recognize the characteristics and comorbid diagnoses associated with OCD patients who hoard. ____
   - E. Enabled me to explore the various kinds of treatments for hoarding behavior, including biological, psychological, and social therapies, their efficacies, and the difficulties encountered with compliance. ____
6. This CME activity provided a balanced, scientifically rigorous presentation of therapeutic options related to the topic, without commercial bias. ____
7. Please comment on the impact that this CME activity might have on your management of patients.

   _____

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   _____
8. Please offer additional comments and/or suggested topics for future CME activities.

   _____

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