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Differential diagnosis of hoarding behaviors

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Hoarding of objects comprises a continuum from normality to extreme disease. It is important to distinguish between the different disorders that include hoarding behaviors.

Compulsive hoarding is a form of obsessive-compulsive disorder (OCD) that is characterized by excessive acquisition of possessions, inability to discard possessions, and excessive clutter. Patients usually display other obsessive features, feel distress if they cannot hoard objects, show a typical cognitive pattern with obsessive features, and their interpersonal relations are mediated by objects.

Diogenes syndrome is the combination of severe self-neglect, domestic squalor, social withdrawal, hoarding, and refusal of help, in elderly patients. There is high comorbidity with psychiatric/somatic disorders. Depression and dementia are risk factors for self-neglect.

Collectionism is a normal phenomenon that is common in children but also found in adults. It is usually an organized activity, and the objects are kept in specific and structured places. The aim of collecting is to organize and hierarchize a series of objects, not just to hoard them. Collected objects are frequently appreciated by other collectors, and become exchanged to enlarge the collection.

Key words:
Diogenes syndrome. Differential diagnosis. Collectionism. Compulsive hoardig. Obsessive-compulsive disorder.

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El trastorno por acumulación es un subtipo de trastorno obsesivo-compulsivo caracterizado por la adquisición de objetos, la incapacidad para tirarlos y la acumulación. Los pacientes suelen desarrollar otros fenómenos obsesivos, sienten gran angustia si no acumulan, presentan un patrón cognitivo muy típico de características obsesivas y se relacionan interpersonalmente a través de los objetos.

El síndrome de Diógenes se define como un abandono extremo del autocuidado, acumulación de basuras, negativa a ser ayudados y aislamiento social en pacientes de edad avanzada. Suelen presentar algún trastorno psiquiátrico y/o somático. La depresión y la demencia constituyen factores de riesgo para el autoabandono.

El coleccionismo es un fenómeno normal, común en la población infantil, aunque también presente en adultos. Esta actividad suele estar organizada, guardando los objetos en lugares específicos y estructurados. Coleccionar tiene como fin organizar y jerarquizar una serie de objetos, no meramente acumularlos. Los objetos coleccionados a menudo son apreciados por otros coleccionistas, por lo que se convierten en moneda de cambio para constituir la colección.

Palabras clave:
Síndrome de Diógenes. Diagnóstico diferencial. Coleccionismo. Trastorno por acumulación. Trastorno obsesivo-compulsivo.

Diagnóstico diferencial de la conducta acumuladora

La acumulación se presenta en un *continuum* desde la normalidad hasta un extremo patológico. Es importante distinguir entre las distintas patologías que se presentan con conductas de acumulación.

INTRODUCTION

Compulsive hoarding has been defined by Frost[1] as: «the acquisition of, and failure to discard objects and possessions that appear to be useless or of limited value». Hoarding comprises a continuum from normality to extreme disorder in which the storage of useless objects hinders daily activities or causes public health problems. Thus, in order to consider the hoarding phenomenon as a disorder, besides the excessive hoarding of useless objects, there must be a number of vital disorganized spaces that hinder normal activity in them, all of which cause significant tension or deterioration of the patient's personal functioning (for example, pro-

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blems with the partner, social isolation due to shame of being exposed, etc.). The degree of disorder and occupation of the usual spaces of the home is the factor that most clearly distinguishes the deterioration suffered by these patients.

The most frequently stored objects according to the studies are newspapers, magazines, letters, accounts and invoices, boxes and other containers, old clothes, pens, plastic bags, medications, toilet articles and video tapes[2]. Hoarding of food and organic material is present, although to a lesser degree.

Table 1 Differences between clinical pictures

	Hoarding disorder	Diogenes syndrome
Onset age	Adolescence Development at 20-30 years	More frequent in those over 65 years
Family background	In 84%-90% of cases Family groups with tics	Characteristic of primary mental disease
Clinical characteristics	Actively acquires possessions (buying them, picking them up in the street, stealing them, trying to get them as gifts, etc.) and then stores them (generally in a disorganized way) in their home, that progressively becomes full Subject is unable to discard or throw-out useless objects, that always have some potential utility to hoarder	Extreme neglect of self-care: hygiene, food, and health in the elderly Reject any type of outside help, accumulate garbage and become totally isolated from the surroundings No awareness of the disease
Hoarded material	Clothes (81%), newspapers and magazines (50%), bags (43%), papers and school notes (37%), letters and advertising brochures (31%), furniture, electrodomestics, bills, etc.	Remains, rubbish: rubbish, organic remains, etc.
Why do they hoard?	The patient claims he/she has reasons to keep the objects, especially the potential use of all them	Normally, there is cognitive deterioration, «they cannot give a reason». In some cases, psychotic explanations
Nosological classifications	Obsessive-compulsive disorder subtype	Mental and/or physical disease: dementia, schizophrenia, personality disorder, psychotic depression, etc.
Cognitive functioning	Conserved, although with characteristic cognitive pattern	There is frequently cognitive deterioration
Social functioning	Except in very serious cases, conserved	Characteristically very altered
Relationship with the objects	Emotional overinvolvement. He/she considers them as a prolongation of their identity. They provide control and safety	Practical, useful
Is there order in the hoarding?	Yes, although personal and idiosyncratic. There is such an amount of categorizations that it appears chaotic from outside	Normally there is no order and the end is difficult to justify
What does he/she think of his/her behavior?	He/she defends it although he/she accepts the negative consequences as a problem	He/she generally denies it or minimizes it and tends towards rationalization
Prevalence	Difficult to determine 11%-42% of obsessive-compulsive disorder patients	Little data, there are no reliable statistics (small series of cases) According to some studies 1.7/1,000 of those admitted are over 65 years of age
Social repercussions of his/her behavior	It is generally a secret behavior, limited to the home setting	Behavior denounced by neighbors or family in which the intervention of the social services is normally necessary
Treatment	Selective serotonin reputake inhibitors/tricyclic antidepressants + cognitive-behavioral therapy	Social measures and initial support physical treatment. Variable psychiatric treatment according to the existence or not of underlying psychopathology

This hoarding of objects is made up of two components: *a)* acquisition of objects, and *b)* inability to discard these acquired objects, that are being stored over time. The classification system of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders[3] (DSM-IV) especially stresses this second factor, including the disorder in the context of obsessive-compulsive personality disorder («inability to discard worn-out or worthless objects even when they have no sentimental value»)[3].

HISTORIC BACKGROUND OF THE ANALYSIS OF HOARDING BEHAVIOR

Several definitions appear in the initial studies of this behavior. In *The principles of psychology*[4], William James explained acquisition as a common instinct in the general population. Freud[5], in *Character and anal erotism,* suggested the correlation in traits as strict order, greed and obstinacy, constituting a precursor personality of the obsessive one, a result of the anal fixation. For Freud, as is known, hoarding of money is the symbolic equivalent of fecal retention. Fromm[6] proposed acquisition as the way of relating with the surrounding setting, sometimes constituting the nucleus of a *non-productive character,* based on introversion, suspiciousness, greed and strict tendency to order, cleanliness and punctuality. Other authors such as Salzman[7] have related this behavior with perfectionism and strive for control; Bender and Schilder described hoarding behaviors and collectionism in childhood as precursor of obsessive personality in the adult. Based on one case of hoarding in a patient with anorexia nervosa, Frankenburg[8] described a model based on four elements: *a)* hoarding as a result of an alteration in impulse control; *b)* collection would represent a transitional object with the world; *c)* hoarding would reduce the patient's anxiety, and *d)* it could be the result of food deprivation. Rapoport[9] goes back to the evolutionist hypothesis of James[4], proposing a model of innate «fixed action pattern» for hoarding.

HOARDING DISORDER AS SUBTYPE OF OBSESSIVE-COMPULSIVE DISORDER

The patient begins to acquire possessions actively (buying them, picking them up in the street, stealing them, attempted to get them as gifts, etc.) and stores them, generally in a disorganized way, in his home, which progressively becomes full. Besides this active acquisition, the patient cannot discard or remove the useless objects, that always have a potential utility for the hoarder. Initially, the patient denies or minimizes his own hoarding behavior, trying to rationalize it and not offering any resistance to it at all.

Samuels[10] found that 30% of a sample of 126 patients with obsessive-compulsive disorder (OCD) developed hoarding behavior and other studies detected 31% of OCD patients with hoarding obsessions and 26% with hoarding compulsions.

Thus, the patient: *a)* generally develops other obsessive phenomenon (cleanliness obsessions/compulsions, impulsive phobias, etc.); *b)* feels great anxiety if he/she cannot hoard things. The patient also suffers irritation and/or aggressiveness if someone changes how the objects are stored, somehow violating his/her control over the world; *c)* they have a very typical cognitive pattern (s. below) of obsessive characteristics: difficulty to discriminate the importance of things, desire for safety, trying to control as many unforeseen situations as possible (e.g., in which he/she will need an object to do well), and *d)* they relate interpersonally through the objects (thus defending themselves through obsessive emotional isolation).

However, four characteristics differentiate it from other OCD subtypes[11]: *a)* its limited level of insight; *b)* absence of resistance to compulsion; *c)* limited motivation for treatment, and *d)* poor response to usual treatment in selective serotonin reuptake inhibitors (SSRI).

It is generally the deterioration of one's personal life and sometime work life that leads the patient to consult the psychiatrist and not the pathological condition of the behavior. The patient claims that he/she has a reason for keeping the objects, especially their potential utility, this being an ego syntonic behavior in most of the cases, even expressing feeling of shame, guilt, incapacity to invite friends or family members to one's home, difficulty to find specific objects in the disorder produced or conflicts with the closest family.

From a cognitive-behavioral perspective, Frost[12] designed a compulsive hoarding model based on four items:

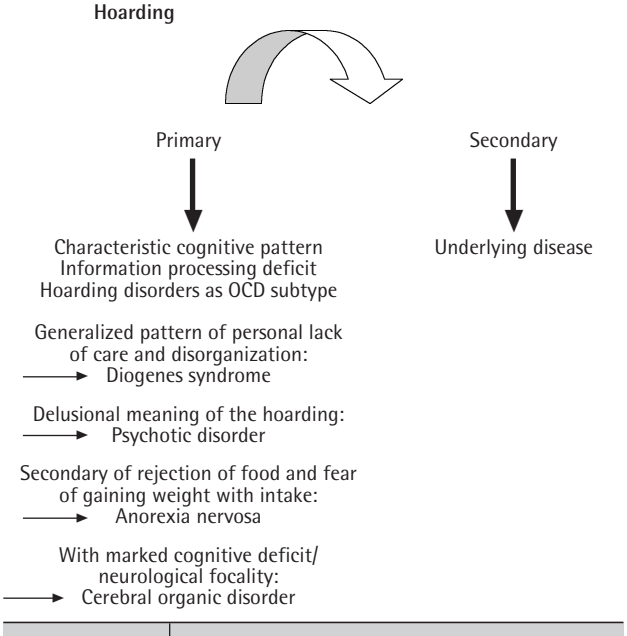

Figure 1 | *Diagnostic algorithm of hoarding behavior.*

- *Information-processing deficit.* The hoarding patient finds it difficult to make decisions (not only in regards to what to keep and throw out) and the hoarding is correlated with his/her concern to not make mistakes. Furthermore, there is a deficit of categorization and organizational skills, so that they define the limits of the categories so restrictively that few items fit into them. The limited level of discrimination between important objects and non-important ones, mild memory difficulties and one's own beliefs on memory must be added to this, so that they keep things «in case they forget them».
- *Problems in forming emotional attachments.* Compulsive hoarders consider their belongings as an extension of themselves. This comes from a more emotional link towards things, that work as a significant reminder of important events in the past.
- *Behavior avoidance.* Compulsive hoarders keep things to avoid the uncomfortable feeling they have when they decide to throw something out, with the consequent and feared risk of making a mistake and that they may need the object some day.
- *Beliefs about the nature of possessions.* This section includes the idea on the need for perfection and excessive concern about errors, on the need to maintain control over belongings or on the greater responsibility they have in regards to future needs (so that they keep objects «just in case»).

DIOGENES SYNDROME

Diogenes of Sinope was a Greek philosopher of the IV-III century BC. He belonged to the school of the cynics, a doctrine that scorned material goods and adapted existence to minimum vital matters. Due to this ideology that he preached, over time, he is represented as living in a barrel. The Diogenes syndrome, which does not exactly coincide with the life style of the philosopher, is defined as extreme neglect of self care (hygiene, food, health) in elderly who reject outside help, accumulate rubbish and are totally isolated from their surroundings[13]. It is also characterized by the null awareness of the disease. It is difficult to estimate its frequency although this is about 1.7/1,000 of admissions in those over 65 years, half of whom have some mental disorder: dementia, schizophrenia, personality disorder, depression[14]. There are no modern studies about the mortality of the syndrome. Its complications are a consequence of malnutrition and dehydration. Admission to a general hospital is generally required and is an important social problem. Many of these patients have no psychiatric disease. Some authors propose that Diogenes is associated with symptoms of frontal dementia[15], however structural lesions are rarely seen. Nonetheless, there are increasingly more studies that relate depression and dementia with neglect of self-care in the elderly and call attention to its possible prevention from primary care[16,17].

OTHER CAUSES OF HOARDING

Cerebral organic disorders[18], especially dementia; autism[9]; psychotic disorders[20]; e.g., patients with delusional ideas of prejudice who hoard objects and food to defend themselves from imminent siege. Significant delusion of hoarding, eating disorder[8], predominantly hoarding of food that is not eaten; endocrinological diseases such as Prader Willy[21].

In some cases (in dementia, autism, anorexia nervosa, etc.) hoarding is seen as a secondary symptom to the core picture and in others (in the hoarding disorder itself) the picture dominates and a very specific cognitive base in the obsessive-compulsive context stands out.

DIFFERENCES BETWEEN HOARDING AND COLLECTIONISM

Collectionism is a normal phenomenon, common in the child population, although it is also present in adults. Most children collect stamps, dolls, toy cars and birthday cards, and this activity is generally organized, keeping the objects in specific and structured places. Collecting, therefore, aims to organize and sort out a series of objects, not only accumulate them. The collector individualizes each object according to its characteristics, putting it in a place corresponding to it in the corresponding system (album, box, piece of furniture, etc.). Furthermore, the collected objects are often appreciated by other collectors of the same material, so that they become a bargaining chip to make the collection.

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