

Hoarding pet animals in obsessive-compulsive disorder

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Background: Although severe hoarding symptoms have been considered rare among obsessive-compulsive disorder (OCD) samples, the prevalence of animal hoarding in OCD is unknown. To help clarifying this issue, we searched for cases of animal hoarding among patients attending a university OCD clinic ($n = 420$).

Methods: Chart review.

Results: Only two patients from our sample exhibited animal hoarding (<0.5%) and only one of them presented additional obsessive-compulsive symptoms. Both cases also collected inanimate objects, presented low insight, exhibited poor response to serotonin reuptake inhibitors and did not adhere to therapy.

Conclusions: There seems to be a lack of relationship between animal hoarding and OCD. However, further studies with larger numbers of patients are needed to better define their psychopathological profile and more appropriate nosological insertion.

Significant outcomes

- Animal hoarding was only rarely reported in a retrospective chart review of patients attending an obsessive-compulsive disorder (OCD) clinic.
- In the two patients in whom animal hoarding was identified, it had several clinical similarities with hoarding disorder.

Limitations

- As animal hoarding patients may not report their symptoms spontaneously owing to their low levels of insight, we cannot exclude the possibility that our low rates of animal hoarding in OCD are an underestimate.

Introduction

Hoarding pet animals – also known as animal hoarding – was first described as a clinical problem more than 30 years ago (1). It is typically characterised by (i) accumulation of more than ‘the usual’ number of companion animals, (ii) failure to provide them with a minimal standards of nutrition, sanitation, shelter and veterinary care, with resulting illness and death from starvation, infectious diseases and untreated injuries or medical conditions, (iii) poor insight (i.e. denial of the inability to provide adequate care and its impact on the animals, the household and human occupants of the dwelling) and (iv) persistence in collecting animals, despite the failure to provide them appropriate care (2). Prevalence estimates of animal hoarding range from 700 to 2000 cases annually in the United States (3).

There are only a few systematic investigations of patients with animal hoarding (3,4) or increased pet attachment (5,6) available in the literature. Unfortunately, only a few have included psychiatric assessments of affected individuals (7). A study describing 54 animal hoarding cases from 10 North American control agencies found animal hoarders to be typically females (76%) with ~40 or more years of age (83.3%) (3). Hoarding of pets most frequently involved cats, dogs, birds and farm animals. Officers reported a median of 39 animals/case and animals that were either living in poor conditions or deceased in 80% of such households. In this report, justifications for having the animals typically revolved around the hoarder’s love for the animals, the animals as surrogate children, feelings that no one else would care for the animals and fear that they would be euthanised if taken to an animal shelter (3).

In DSM-5 text, the collection of an unusually large number of animals is described as a symptom of hoarding disorder (HD), a condition that has been attributed, among other factors, to the perceived usefulness, aesthetic value or emotional significance of hoarded possessions (8). However, it is not completely clear whether individuals who hoard animals fit into this description. For instance, a recent review on the topic has identified a number of differences between animal hoarding and ‘regular’ object hoarding, including a predominance of older females, a later age at onset, poorer sanitary conditions, greater clutter and less variety of hoarded items among animal hoarding subjects (9).

Perhaps animal hoarding could be more related to OCD than to HD. For instance, both animal hoarding and OCD (10) [particularly OCD cases with pathological doubt and checking rituals (11)], seem to exhibit inflated responsibility beliefs and overestimation of threats. Patients with both conditions are preoccupied

with the integrity of living beings (humans or animals), often believing that something terrible can happen to them by their omission, such as major accidents or disasters in OCD, hunger or poisoning in animal hoarding, and serious diseases in both. They also have strong-held moral values, including repugnance of abortion- and euthanasia-related themes in OCD (12,13) and animal hoarding (14), respectively.

In fact, the relationship between living beings [such as those between humans (e.g. mother–infants) in OCD and between humans and animals (e.g. owners–pets) in animal hoarding] is difficult to compare with relationships between humans and objects in ‘regular’ HD. Affective reciprocity between living beings [as noted by Patronek and Nathanson (15) in animal hoarding cases] may be also relevant to certain types of OCD (e.g. postpartum OCD). In contrast, there are some types of OCD symptoms (e.g. symmetry, ordering and counting) where interpersonal affective interactions do not seem to play the same role.

Aims of the study

Given the observed differences between animal and ‘non-animal’ HD (9) and the number of potential areas of overlap between animal hoarding and OCD, we feel it was timely to study the relationship between animal hoarding and OCD. To do this, we investigated the prevalence of animal hoarding patients in our OCD sample; reviewed their socio-demographic, clinical and outcome features; and detailed the personal accounts that they provided for their collecting behaviours.

Methods

A total of 420 patients with a DSM-IV diagnosis of OCD had their records reviewed in an attempt to identify patients who displayed animal hoarding as a main clinical problem. Patients were seen between 1998 and 2013. Basic sociodemographic and clinical information were collected whenever possible, with specific focus on detailed descriptions of symptomatology, reason for referral and comorbid axis I psychiatric disorders. However, since some patients dropped out of treatment in early stages and were not traceable at the moment of the current assessment, not all-clinically relevant information was available. The local research and ethics committee approved this retrospective protocol.

Our clinic is the only specialised public service for the diagnosis and treatment of obsessive-compulsive and related disorders in the Brazilian state of Rio de Janeiro. In general, it receives cases (i) screened by

other services within our hospital, (ii) referred by the OCD support group in Rio de Janeiro or (iii) informed about us by word of mouth. Based on a study showing symptoms consistent with a diagnosis of HD in 10% of a treatment seeking OCD sample (16), and using a margin of error of 2.5% with a confidence interval of 90% ($z = 1.645$), we estimated that the minimum sample size needed to identify patients with animal hoarding in our OCD sample would be 392, thus suggesting that our study is adequately powered.

Results

Patients had a mean age of 35.6 years (SD 13.1 years) at their first assessment in our clinic. A total of 55% of the cases were females. Most patients were single (59.7%), followed by married (29.5%), divorced (8.8%) and widowed (2.0%) subjects. Symptoms belonging to the forbidden thoughts/checking, contamination/washing, symmetry/ordering or hoarding dimensions were endorsed by 79.3%, 63.3%, 47.6% and 20.7% of the sample, respectively. However, owing to problems inherent to our retrospective chart-review design and non-systematic approach, we were unable to determine the exact proportion of patients whose hoarding symptoms could be ascribed to prototypical OCD obsessions or to primary HD.

Two cases of patients who hoarded pet animals were identified among the 420 cases examined (0.47%). Both files had detailed accounts of the patient's reasons for hoarding animals and other relevant clinical information. One patient sought treatment because of a major depressive episode and the other because of his OCD symptoms. Patients described overwhelming feelings of personal responsibility/threat estimation as reasons for their collecting behaviours, similarly to those reported by patients with OCD. However, they seemed to deal with their beliefs of inflated responsibility differently from typical OCD patients, as if taking care of the animals was their 'mission'. A detailed account for their hoarding behaviours is provided below.

Case 1

Mrs. A, a 35-year-old single architect, reported being sad and unable to enjoy previously pleasurable activities in the past 12 months. She also displayed insomnia, increased appetite and decreased self-esteem. Since adolescence, she described that she would collect teddy bears and stuffed toy animals, especially those that exhibited a visible defect, indicating that she 'felt bad' for the toys. She used to live in an apartment with 19 cats and four dogs

but, owing to increased mess and squalor, she was forced to move to a larger household to accommodate all of these pets. However, her new house remains unquestionably messy, with animal faeces scattered across various rooms. Well aware of her habits, strangers have often left pets on her doorstep for her to mind. Mrs. A did not report any other obsessive-compulsive symptom.

Despite this desolating scenario, Mrs. A argues that her animals are well cared for and that she does not have any plans to donate them or give them up. She does, however, admit to discarding stuffed toys. She is also being treated for morbid obesity. Her family history was unremarkable for OCD and hoarding manifestations, but her mother had a history of Alzheimer's disease. Mrs. A fulfilled DSM-IV-TR criteria for major depressive disorder and OCD, but DSM-5 criteria for major depressive disorder and HD, and not OCD. She was treated with fluoxetine, 40 mg/day, and clonazepam, 0.5 mg/day, with some improvements of anhedonia and insomnia, but hoarding and other depressive symptoms remained unaltered. Fluoxetine was then adjusted to 60 mg/day and she was referred to cognitive-behavioural treatment, but has not appeared for treatment ever since.

Case 2

Mr. B, a 59-year-old single Pharmacist reported hoarding street animals, cleaning products, construction materials and debris since age 40. The resulting squalor and clutter led him to two consecutive evictions. Currently, he lives with his mother in an apartment cluttered by construction materials and empty boxes, but he keeps two other apartments housing a total of 130 animals, mostly cats collected in the streets. He also presents with contamination and aggressive obsessions, along with washing, symmetry and checking compulsions. He worries about mixing contaminated and non-contaminated objects, thus isolating some of his possessions, which results in additional clutter. Although he argues that construction materials and boxes can be useful in the future and provides a list of 'reasonable' explanations for accumulating cats and dogs in his apartments, he feels personally responsible for taking care of the animals and unable to delegate this activity to others, stating: 'They [animals] could be contaminated or poisoned and end up dying'.

Despite acknowledging psychological difficulties and interpersonal problems, he does not believe that his preoccupations with animals are a symptom of a mental disorder, stating: 'I am just exercising my citizenship'. He acknowledges having OCD symptoms though. Mr. B is worried that his pets die

as a consequence of his inability to keep things uncontaminated. He reported several family members affected by OCD and hoarding behaviours. While Mr. B fulfills DSM-IV criteria for OCD and attention deficit/hyperactivity disorder, he has DSM-5 OCD, attention deficit/hyperactivity disorder and HD. He reported previous use of different serotonin reuptake inhibitors (SRI) for sustained periods and appropriate doses, including fluoxetine, sertraline, paroxetine, escitalopram and clomipramine, but did not show any response to these treatments. Psychotherapy was also attempted for a short period of time, but he did not adhere to this treatment modality.

Discussion

Animal hoarding was extremely rare in our DSM-IV-TR OCD sample (current prevalence: 0.47%), thus suggesting that the links between animal hoarding and OCD are tenuous, if existent. Indeed, as reported above, both patients with animal hoarding also collected inanimate objects, thus fitting the criteria for 'regular' or prototypical HD, with only one meeting additional criteria for DSM-5 OCD. Interestingly, case no. 2, who has animal hoarding, HD and OCD, had insight into typical OCD symptoms, but not into animal and non-animal hoarding ones. Finally, as typical HD patients, both cases did not respond to conventional anti-OCD treatment (e.g. adequate trials of SRI) and resisted to accept psychotherapy. Therefore, we argue that our cases of animal hoarding may indeed be best conceptualised as having a subtype of HD rather than an atypical form of OCD.

In fact, although some similarities between animal hoarding and OCD are compelling, there also seem to be differences in the ways inflated responsibility and threat estimation are dealt with. For instance, typical OCD thoughts are avoided and resisted (i.e. ego-dystonic) (17), result in anxiety, fear and shame, threaten the 'self' or the identity of the individual (18), and lead to typical compulsions. They are also more closely associated with cluster C personality disorders. In contrast, hoarding-related thoughts are accepted and pursued (i.e. ego-syntonic) (17), resulting in feelings of pride and self-confidence, being in line with the individual 'self' or identity (18). They generally do not lead to typical compulsions, but rather to a cascade of complex and organised behaviours that ultimately result in animal hoarding. Furthermore, animal hoarding also seems to be more closely associated with cluster B and A personality disorders (15).

These observations may be interpreted as evidence of animal hoarding being an expression of overvalued ideas regarding personal responsibilities

in relation to animals rather than to prototypical OCD obsessions. In fact, inflated responsibility over and excessive emotional attachment to possessions has also been reported in HD (19). Further, although animal hoarders described overwhelming feelings of personal responsibility/threat estimation as reasons for their behaviours, they seemed to experience responsibility in a fairly different manner. For instance, while animal hoarders behave as if saving animals was their 'mission' (14), OCD patients fear personal responsibilities for catastrophic events.

Animal hoarders believe that they are the only ones who can provide appropriate care to their animals. They rarely refuse requests to take more animals and generally avoid authorities and/or impede access to their homes (14). Interestingly, some authors (20) have divided overvalued ideas into active or passive forms (i.e. ideas that do and do not impact behaviour, respectively). Apparently, both Ms. A and Mr. B display a combination of these elements, with passiveness being more evident in the first case and activeness in the second. Also, it is interesting that Mrs. A considered discarding stuffed toy animals but not her living pets, thus suggesting that there is something distinct about living beings that cannot be paralleled by similar objects.

The present study should be considered in light of several limitations. Most importantly, it is based on a retrospective evaluation of an OCD sample that was not initially specifically assessed for the prevalence of animal hoarding. As hoarding has been associated with poor insight and decreased likelihood of self-disclosure, some case of animal hoarding behaviour might have gone unnoticed by the attending physician. Second, we did not assess the prevalence of HD in our OCD sample. Thus, we cannot state how frequent animal hoarding was in our OCD patients with HD versus OCD without HD. Ideally, this should be done using structured diagnostic instruments for HD. Third, the generalisability of the psychopathological findings described in our cases is uncertain, since the patients were selected from a specialised OCD clinic. Finally, it would be also interesting to study animal hoarding (or milder forms of increased pet attachment) in non-treatment seeking OCD samples.

Conclusions

Animal hoarding was rare among patients treated in a specialised OCD clinic, thus suggesting that both conditions are not closely related. Moreover, both patients also collected inanimate objects, the insight regarding their hoarding behaviours was poor, they did not respond to SRI treatments and they also resisted psychotherapy. In addition, only one of them

presented additional typical OCD symptoms. These characteristics seem to approximate animal hoarding of 'classical' or non-animal HD.

Nevertheless, no final conclusions can be drawn from this study regarding the appropriate classification of animal hoarding. It may represent the end of a spectrum of severity within HD, an atypical HD symptom or even belong to a group of conditions characterised by increased interpersonal attachment, which includes, for instance, separation anxiety disorder, panic disorder/agoraphobia and borderline personality disorder (8).

Further studies are needed to evaluate the prevalence and clinical features of animal hoarding in other clinical settings and in community samples. Only a comprehensive and structured evaluation of a large number of animal hoarding individuals will allow a clearer definition of their psychopathological profile, which is essential to guide this interesting and complex nosological debate.

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Conflicts of Interest

L.F. Fontenelle is a member of the WHO ICD Revision Working Group on the Classification of Obsessive-Compulsive Related Disorders, reporting to the International Advisory Group for the Revision of ICD-10 Mental and Behavioural Disorders. The views expressed in this article are those of the authors and, except as specifically noted, do not represent the official policies or positions of the International

Advisory Group, the Working Group on Obsessive-Compulsive Related Disorders or the WHO.

Ethical Standards

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

References

1. WORTH D, BECK A. Multiple ownership of animals in New York City. *Trans Stud Coll Physicians Phila* 1981;**3**:280–300.
2. HARC. How is animal hoarding defined? 2013. Available from <http://www.tufts.edu/vet/hoarding/>. Accessed on 17 November 2013.
3. PATRONEK GJ. Hoarding of animals: an under-recognized public health problem in a difficult-to-study population. *Public Health Rep* 1999;**114**:81–87.
4. NATHANSON JN. Animal hoarding: slipping into the darkness of comorbid animal and self-neglect. *J Elder Abuse Negl* 2009;**21**:307–324.
5. BROWN SE, KATCHER AH. The contribution of attachment to pets and attachment to nature to dissociation and absorption. *Dissociation* 1997;**10**:125–129.
6. BROWN SE, KATCHER AH. Pet attachment and dissociation. *Soc Anim* 2001;**9**:25–41.
7. RYNEARSON EK. Humans and pets and attachment. *Br J Psychiatry* 1978;**133**:550–555.
8. APA. Diagnostic and statistical manual of mental disorders: DSM-5. Arlington, VA: American Psychiatric Publishing, 2013.
9. FROST RO, PATRONEK G, ROSENFELD E. Comparison of object and animal hoarding. *Depress Anxiety* 2011;**28**:885–891.
10. SALKOVSKIS P, SHAFRAN R, RACHMAN S, FREESTON MH. Multiple pathways to inflated responsibility beliefs in obsessional problems: possible origins and implications for therapy and research. *Behav Res Ther* 1999;**37**:1055–1072.
11. BRAKOULLAS V, STARCEVIC V, BERLE D, MILICEVIC D, HANNAN A, MARTIN A. The relationships between obsessive-compulsive symptom dimensions and cognitions in obsessive-compulsive disorder. *Psychiatr Q* 2014;**85**:133–142.
12. McCRAW RK. Obsessive-compulsive disorder apparently related to abortion. *Am J Psychother* 1989;**43**:269–276.
13. LIPPER S, FEIGENBAUM WM. Obsessive-compulsive neurosis after viewing the fetus during therapeutic abortion. *Am J Psychother* 1976;**30**:666–674.
14. PATRONEK G, LOAR L, NATHANSON JN. Animal hoarding: structuring interdisciplinary responses to help people, animals and communities at risk. Boston: Consortium HoAR, 2006.
15. PATRONEK GJ, NATHANSON JN. A theoretical perspective to inform assessment and treatment strategies for animal hoarders. *Clin Psychol Rev* 2009;**29**:274–281.
16. CHAKRABORTY V, CHERIAN AV, MATH SB et al. Clinically significant hoarding in obsessive-compulsive disorder: results from an Indian study. *Compr Psychiatry* 2012;**53**:1153–1160.

17. FONTENELLE JM, SANTANA LDA S, LESSA LDA R, VICTORIA MS, MENDLOWICZ MV, FONTENELLE LF. The concept of insight in patients with obsessive-compulsive disorder. *Rev Bras Psiquiat* 2010;**32**:77–82.
18. VEALE D. Over-valued ideas: a conceptual analysis. *Behav Res Ther* 2002;**40**:383–400.
19. FROST RO, HARTL TL, CHRISTIAN R, WILLIAMS N. The value of possessions in compulsive hoarding: patterns of use and attachment. *Behav Res Ther* 1995;**33**:897–902.
20. BUMKE O. *Lehrbuch der Geisteskrankheiten*. München: Bergmann, 1948.