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Prevalence of Hoarding Disorder in Individuals at Potential Risk of Eviction in New York City:

A Pilot Study

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Abstract

This study estimated the prevalence of hoarding disorder (HD) in individuals seeking help from Eviction Intervention Services Housing Research Center (EIS), a not-for-profit community organization in New York City (NYC) that aids clients with housing problems including eviction. One hundred fifteen EIS clients were screened for HD. The prevalence of HD among those seeking help from EIS was 22% (clinician-rated) and 23% (self-rated), which is nearly 5 to 10 times greater than the rate of hoarding (2% to 5%) in the general population. Of individuals seeking help from EIS who met the criteria for HD (n = 25), 32% were currently in legal eviction proceedings (*i.e.*, threatened with imminent eviction), 44% had a history of previous legal eviction proceedings, and 20% had been evicted from their home one or more times, yet only 48% were currently seeking mental health treatment. Almost a quarter of individuals seeking help for housing problems from a community eviction prevention organization met the criteria for HD; only about half of these individuals were receiving mental health treatment. Future studies are needed to determine whether HD treatment can reduce the risk of eviction and homelessness in NYC.

Keywords

Hoarding; hoarding disorder; eviction; New York; prevalence

Although the provision of publicly funded health and mental health services to homeless persons has expanded greatly in the past decade, primary prevention of homelessness has received relatively little attention (O'Connell et al., 2005). Evictions are a major proximate cause of homelessness, and numerous studies show that evictions primarily result from tenants' nonpayment of rent (Stenberg and van Laere, 2009; Van Laere et al., 2009). However, evidence also suggests that, for some housed persons, untreated mental health problems may also increase eviction risk by contributing to behaviors that jeopardize continued tenancy (Crane et al., 2005; Van Laere et al., 2009).

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DISCLOSURE

The authors have nothing to disclose.

Hoarding disorder (HD; Mataix-Cols et al., 2010) is one mental health condition that may precipitate homelessness by placing housed individuals at risk of eviction (Mataix-Cols D, Grayton L, Bonner A, Luscombe C, Taylor PJ, van den Bree M. A putative link between compulsive hoarding and homelessness: A pilot study [submitted for publication]; Tolin, et al., 2008). Also known as "compulsive hoarding syndrome" (Saxena, 2008), HD is defined as persistent difficulty in discarding personal possessions of limited value, which results in clutter that precludes normal use of living spaces and causes clinically significant distress or impairment (Frost and Gross, 1993; Frost and Hartl, 1996; Mataix-Cols et al., 2010). Once considered a subtype of obsessive-compulsive disorder (OCD), HD is now considered a separable syndrome and has been proposed as a new diagnostic category in *DSM-V* (Mataix-Cols et al., 2010; Phillips et al., 2010). Epidemiological surveys estimate a 2% to 5% prevalence of HD in the general population (Iervolino et al., 2009; Mataix-Cols et al., 2010; Samuels et al., 2008). Recommended treatment strategies for HD include medication (*e.g.*, paroxetine and venlafaxine) and cognitive behavioral therapy (Saxena, 2008, 2011; Steketee and Frost, 2003).

HD is associated with high levels of disability and impairment (Frost et al., 2000; Tolin et al., 2008). It causes public health problems when clutter attracts pest infestations or obstructs fire exits in apartment buildings, endangering both personal and neighbors'safety (Frost et al., 2000; Frost et al., 1999; Patronek, 1999). These conditions may lead neighbors and landlords to complain, resulting in legal proceedings and eviction (Frost et al., 1999).

Two studies have examined the putative link between HD, eviction, and homelessness. An Internet study of the economic and social burden of HD surveyed 864 individuals with HD and found that 2% reported being evicted and 6% endorsed being threatened with eviction (Tolin et al., 2008). A study in the United Kingdom evaluated the prevalence of HD in 78 randomly selected homeless individuals newly admitted to Salvation Army shelters (Mataix-Cols D, Grayton L, Bonner A, Luscombe C, Taylor PJ, van den Bree M. A putative link between compulsive hoarding and homelessness: A pilot study [submitted for publication]): up to 21% of these individuals endorsed hoarding symptoms and 8% reported that hoarding problems directly contributed to their homeless state. Although these studies suggest that HD may contribute to eviction and homelessness, to our knowledge, no studies have examined the prevalence and correlates of HD in a population seeking housing assistance and at potential risk for eviction.

To begin to address this gap, we evaluated the prevalence of HD in a sample of people seeking services from a not-for-profit community organization focused on helping individuals with housing problems including eviction. In further characterizing this sample, we also assessed sociodemographic correlates, threat of imminent eviction, history of eviction, and mental health treatment utilization.

METHODS

The institutional review board of the New York State Psychiatry Institute approved the study protocol.

Participants were individuals evaluated at the Eviction Intervention Services Housing Resource Center (EIS; Rodriguez et al., 2010), a not-for-profit social service agency in New York City (NYC) that provides legal and housing advocacy for individuals with housing problems including eviction. EIS receives referrals from NYC housing courts, social services agencies, advocacy groups (*e.g.*, Emergency Rent Coalition, a network of community organizations that advocates for vulnerable NYC families), and state

government programs (*e.g.*, Family Eviction Prevention Supplement, a program to pay back rent for families receiving public assistance).

All English- and Spanish-speaking adults who met with an EIS staff member between March 2 and 24, 2010, were invited to participate by the EIS staff. Interested participants were introduced to on-site bilingual research staff who conducted all procedures in the subject's preferred language. Informed consent was obtained after participants were provided written and verbal explanation of the study purpose and procedures. Clients received $25 for study participation.

Clients were also assessed for HD and the severity of clutter, acquisition, difficulty discarding, distress, and impairment using two scales described in detail below: a) the clinician-administered, semistructured Hoarding Rating Scale–Interview (HRS-I; Tolin et al., 2010) and b) a self-rating scale, the Saving Inventory-Revised (SI-R; Frost et al., 2004). The HRS-I is a semistructured interview that assesses severity of clutter, acquisition, difficulty discarding, distress, and impairment, each on a 0 to 8 scale (Tolin et al., 2010). The HRS-I has excellent internal consistency ($\alpha = 0.97$) and reliably discriminates hoarding from nonhoarding subjects (sensitivity = 0.97, specificity = 0.97; Tolin et al., 2010). Consistent with the literature, we used an HRS-I score of at least 14, the cutoff score with optimal sensitivity and specificity, to define HD status (Tolin et al., 2010). As a secondary measure for HD diagnosis and severity, we used the SI-R (Frost et al., 2004), a 23-item self-report questionnaire used in previous trials (Gilliam et al., 2009; Muroff et al., 2007; Steketee et al., 2010; Tolin et al., 2007). The SI-R discriminates people with HD from OCD patients and community controls and correlates significantly with ratings of clutter and impairment; it has three subscales: Clutter, Difficulty Discarding, and Acquisition (Frost et al., 2004). Internal consistency is excellent for the total score ($\alpha = 0.92$) and for the three subscales ($\alpha = 0.87$ to 0.91) (Frost et al., 2004). Consistent with the literature, we used an SI-R score of at least 40, the cutoff score with optimal sensitivity and specificity, to define HD status (Frost et al., 2004). Using a structured diagnostic interview modeled after the National Epidemiologic Survey on Alcohol and Related Conditions (Grant et al., 2003), the research staff asked about age, sex, race/ethnicity, marital status, household composition, and healthcare treatment. Client clinician-administered and self-rating assessments were translated from English to Spanish and were back-translated by a bilingual team of mental health professionals following standard procedures (Brislin, 1986; Canino et al., 1997).

We used a *z*-test for proportions to compare clinical and demographic correlates between individuals with and without HD. We calculated Cohen kappa to evaluate the level of agreement between clinician-administered (HRS-I) and self-rating (SI-R) assessments of HD.

RESULTS

One hundred twenty-two clients were asked to participate, and 115 did. Most participants were female (94; 82%), Hispanic (65; 57%), single/never married (65; 57%), with more than one child living at home (80; 70%).

Among the 115 participants, 25 (22%) met criteria for HD using the clinician-administered assessment (HRS-I). Using the SI-R, a self-rating assessment, 26 (23%) met criteria for HD. The Cohen kappa coefficient of 0.924 indicates excellent agreement between these two ratings. The 25 individuals who met criteria for HD (as defined by the HRS-I) reported that they were seeking help from EIS for the following reasons: perceived threat of eviction (n = 17 [68%]), problems paying rent (n = 14 [56%]), need for legal representation in housing

court (n = 6 [24%]), aid with maintenance issues (n = 14 [56%]), or other dispute with the landlord (n = 9 [37%]).

Demographic and clinical characteristics of individuals with and without HD are presented in Table 1. Individuals with HD were significantly older, more likely to be white, be non-Hispanic, and live alone without children in the household. Individuals with HD also had significantly more lifetime psychiatric hospitalizations, mental health treatment, and use of psychotropic medication. At the same time, only 48% of individuals with HD were currently receiving mental health services.

As shown in Table 1, the proportion of those contacting EIS because of a perceived threat of eviction was similar between those with HD (68%) and those without HD (84%). On the other hand, the proportions of those reporting current legal eviction proceedings and reporting a history of previous eviction proceedings differed. Specifically, those with HD had a significantly lower proportion of both current legal eviction proceedings (*i.e.*, actual threat of imminent eviction; 32%) and previous eviction proceedings (44%). The prevalence of previous evictions was similar between both groups.

DISCUSSION

To our knowledge, this is the first study to evaluate HD in a not-for-profit community organization that aids clients with housing problems including eviction. There were three main findings. First, in this sample, the prevalence of HD was approximately 22%. This is 5- to 10-fold greater than the estimated HD prevalence in the general population (2% to 5%; Iervolino et al., 2009; Mataix-Cols et al., 2010; Samuels et al., 2008). These results suggest that community organizations that provide housing assistance may be a fertile site for identifying individuals with HD. This is important because HD clients do not often seek mental health treatment, but they come to the attention of nonmental health agencies (*e.g.*, fire department, police) during emergencies (*e.g.*, pest infestation and fire; Frost et al., 2000; Rodriguez et al., 2010).

Second, the risk of eviction in individuals with HD in this sample was substantial: 32% were threatened with imminent eviction (*i.e.*, currently in legal eviction proceedings), and 20%had been evicted one or more times in their lifetime. This lifetime prevalence of evictions (20%) is 10 times higher than that reported in a sample of individuals with HD surveyed over the Internet (2% reported at least one eviction; Tolin et al., 2008). At the same time, the rate of current and previous eviction proceedings in those with HD was lower than those without HD. We speculate that those with HD (in contrast with those without HD) contact EIS before receiving an eviction notice or a summons for court because of increased anxiety and fear of losing their possessions. This may provide an ideal time to intervene.

Finally, although clients with HD were more likely to have a history of psychiatric hospitalization and previous psychotropic mediation use compared with those without HD, only 48% of those with HD were currently receiving mental health treatment of any kind. Moreover, this is likely an overestimate of those receiving treatment specifically targeted at hoarding problems because HD-focused treatment is typically difficult to access (Rodriguez et al., 2010). Individuals with HD are more likely to be receiving mental health treatments for comorbid psychiatric conditions common in individuals with HD, like major depressive disorder (Frost et al., 2006). Engaging clients with HD in evidence-based, HD-focused treatment as they seek help from housing agencies might reduce their risk of eviction and homelessness, one of the most tragic consequences of this illness.

Our findings need replication given the relatively small sample size, the fact that the data come from only one community organization, and the 1-month sampling period, all of which

may create unknown sampling biases. Second, some participants may not have been experiencing HD per se, but from another disorder (*e.g.*, dementia or schizophrenia) that may have led to their hoarding symptoms; this needs to be assessed in future studies.

CONCLUSIONS

These pilot data suggest that individuals seeking help from a not-for-profit community organization aiding clients with housing problems including eviction have a high prevalence of HD. Identifying and treating their HD might decrease their risk of eviction and/or homelessness.

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TABLE 1

Demographic and Clinical Comparisons of HD *vs.* Non-HD Clients

	Hoarding		Nonhoarding			
	n = 25 (21.70%)		*n* = 90 (78.30%)		Test Statistic	
	n	%	*n*	%	*z*-test	*p*
Age, yrs						
18–39	5	20	48	53	−2.96	0.0031
40–59	9	36	34	38	−0.16	0.8729
60+	11	44	8	9	4.18	0.0001
Sex						
Female	20	80	74	82.2	−0.25	0.8026
Male	5	20	16	17.8	—	—
Race						
Hispanic	4	16	61	67.8	−4.62	0.0001
Non-Hispanic	21	84	29	32.2	—	—
Ethnicity						
American Indian or Alaska Native	1	4	0	0	1.91	0.0561
Asian	0	0	0	0	0.00	1.0000
Black or African-American	5	20	18	20	0.00	1.0000
Native Hawaiian or other Pacific Islander	0	0	0	0	0.00	1.0000
White	14	56	11	12	4.69	0.0001
Other	5	20	61	68	−4.27	0.0001
Marital status						
Married/cohabiting	4	16	21	23.3	−0.79	0.4295
Widowed/separated/divorced	7	28	18	20	0.86	0.3898
Single/never married	14	56	51	56.7	−0.06	0.9522
Household residents						
1	14	56	13	14.4	4.34	0.0001
2+	11	44	77	85.6	—	—
Children in household/under 18						

	Hoarding		Nonhoarding			
	n = 25 (21.70%)		*n* = 90 (78.30%)		Test Statistic	
	n	%	*n*	%	*z*-test	*p*
0	18[a]	75	16[b]	18	5.41	0.0001
1+	6[a]	25	73[b]	82	—	—
Eviction risk						
Seeking EIS help for perceived threat of eviction	17	68	76	84.4	−1.85	0.0643
Currently in eviction proceedings	8[c]	32	75	83.3	−5.07	0.0001
Eviction proceedings in past (1+)	11	44	73[d]	83	−3.94	0.0001
Evicted in past (1+)	5	20	23	25.6	−0.57	0.5687
Healthcare treatment						
Psychiatric hospitalization (lifetime)	7[a]	29.2	7	7.8	2.84	0.0045
Psychiatric hospitalization (12 mos)	0[a]	0	2	0	−0.74	0.4593
Mental health treatment (lifetime)	19	76	27	30	4.15	0.0001
Mental health treatment (12 mos)	12	48	20	22	2.54	0.0111
Psychotropic medication (lifetime)	16	64	29	32.2	2.88	0.0040

[a] *n* = 24.

[b] *n* = 89.

[c] Self-reported reasons why they were in eviction proceedings included clutter or inability to pay rent.

[d] *n* = 88.

EIS indicates Eviction Intervention Services Housing Research Center; HD, hoarding disorder.