A brief interview for assessing compulsive hoarding: The Hoarding Rating Scale-Interview

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ABSTRACT

This article describes the development and validation of the *Hoarding Rating Scale-Interview* (HRS-I), a brief (5–10 min) five-item semi-structured interview that assesses the features of compulsive hoarding (clutter, difficulty discarding, acquisition, distress and impairment). Trained interviewers administered the HRS-I to 136 adults (73 compulsive hoarding, 19 OCD, 44 non-clinical controls) along with a battery of self-report measures. An initial assessment was conducted in the clinic, and a second assessment was conducted in participants' homes. The HRS-I showed high internal consistency and reliability across time and context. The HRS-I clearly differentiated hoarding and non-hoarding participants, and was strongly associated with other measures of hoarding. It is concluded that the HRS-I is a promising measure for determining the presence and severity of compulsive hoarding.

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1. Introduction

Compulsive hoarding is characterised by (a) acquisition of and failure to discard a large number of possessions; (b) clutter that precludes activities for which living spaces were designed; and (c) significant distress or impairment in functioning caused by the hoarding (Frost and Hartl, 1996). A recent epidemiological survey suggested a lifetime prevalence of over 5% (Samuels et al., 2008). Hoarding has been associated with impairment in activities of daily living (Frost et al., 2000), substantial health risks (Steketee et al., 2001) and marked occupational and role impairment (Tolin et al., 2008). Although hoarding has traditionally been considered a subtype or dimension of obsessive–compulsive disorder (OCD), a large percentage of hoarders experience no other OCD symptoms (Frost et al., 2006), and hoarding may be more strongly associated with conditions other than OCD (Wu and Watson, 2005; Meunier et al., 2006).

It is generally accepted that a thorough evaluation of psychiatric disorders includes a structured or semi-structured diagnostic interview as well as self-report questionnaires and behavioural observations (American Psychiatric Association, 2006). Self-report measures of compulsive hoarding such as the Saving Inventory-Revised (SI-R; Frost et al., 2004) and Clutter Image Rating (CIR; Frost et al., 2008), demonstrate good psychometric properties and appear to be useful in clinical and research settings. The CIR can also be used by clinicians as a direct observation of clutter severity. Similarly, the Activities of Daily Living (ADL; Frost et al., 2004; Steketee et al., in preparation) scale can be used as a clinician rating of daily activities affected by hoarding, living conditions and safety concerns. To date, however, no diagnostic interviews have been developed that assess compulsive hoarding adequately from a categorical (diagnostic) or continuous (severity) perspective. Many previous studies (e.g., Abramowitz et al., 2003; Saxena et al., 2007) have relied on the Yale–Brown Obsessive–Compulsive Scale (Y–BOCS; Goodman et al., 1989), a structured interview designed for OCD, to assess hoarding. Unfortunately, the Y–BOCS symptom checklist contains only two yes/no items corresponding to hoarding obsessions and compulsions. These categorical judgements convey little information about the behaviour, and the description given in the checklist does not mention cluttered living spaces as a symptom. Furthermore, the aggregation of various OCD symptoms in determining severity ratings prevents this instrument from accurately assessing hoarding alone.

The aim of the present study was to develop and validate a semi-structured interview for compulsive hoarding that encompasses the relevant dimensions of this condition (clutter, difficulty discarding, excessive acquisition, distress and impairment). It was predicted that this measure would possess good internal consistency, correlate significantly with measures of hoarding and related impairment and discriminate between individuals with and without compulsive hoarding. It was further predicted that the individual items would

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Table 1
Sample description.

	Source	Hoarding	OCD	NCC	F	χ^2	α
Demographic information							
Female (*n*, %)	P, C	65 (92.9%)	13 (81.3%)	36 (90.0%)		2.05	
Age	P, C	53.37 (9.24)[a]	29.88 (11.20)[b]	50.32 (14.96)[a]	26.82**		
White (*n*, %)	P, C	63 (90.0%)	16 (100.0%)	40 (95.2%)		2.49	
Unemployed (*n*, %)	P, C	15 (21.1%)	3 (18.8%)	7 (16.7%)		0.34	
Disabled (*n*, %)	P, C	10 (13.7%)	0 (0.0%)	0 (0.0%)		9.32*	
College graduate (*n*, %)	P, C	49 (71.0%)	9 (56.3%)	26 (61.9%)		1.77	
Study measures							
SI-R Clutter	P, C	26.23 (6.20)[a]	4.11 (6.24)[b]	4.25 (6.00)[b]	217.55**		0.98
SI-R Difficulty Discarding	P, C	19.95 (4.59)[a]	5.63 (5.49)[b]	5.48 (5.34)[b]	142.20**		0.95
SI-R Acquiring	P, C	16.62 (5.40)[a]	5.89 (4.44)[b]	4.57 (4.54)[b]	91.71**		0.92
SI-R Clutter	P, H	25.70 (6.60)[a]	3.89 (6.48)[b]	4.39 (5.87)[b]	192.63**		0.98
SI-R Difficulty Discarding	P, H	19.34 (5.00)[a]	4.05 (4.94)[b]	5.52 (5.80)[b]	124.75**		0.96
SI-R Acquiring	P, H	15.89 (5.76)[a]	4.26 (4.33)[b]	4.18 (4.10)[b]	88.95**		0.92
CIR	P, C	3.64 (1.55)[a]	1.46 (0.71)[b]	1.39 (0.70)[b]	54.77**		0.91
CIR	P, H	3.75 (1.63)[a]	1.46 (0.66)[b]	1.30 (0.57)[b]	60.98**		0.92
CIR	E, H	3.91 (1.54)[a]	1.26 (0.38)[b]	1.24 (0.37)[b]	89.24**		0.93
BDI-II	P, C	17.89 (11.45)[a]	8.95 (7.58)[b]	3.73 (5.27)[b]	32.61**		0.94
BAI	P, C	10.25 (9.97)[a]	11.89 (11.13)[a]	1.52 (2.79)[b]	17.00**		0.94
OCI-R Checking	P, C	2.08 (2.55)[a]	4.32 (4.01)[b]	0.66 (1.48)[c]	14.13**		0.87
OCI-R Hoarding	P, C	9.12 (2.76)[a]	1.47 (2.41)[b]	1.80 (2.35)[b]	139.12**		0.93
OCI-R Neutralising	P, C	1.36 (2.48)[a]	2.53 (3.91)[a]	0.14 (0.51)[b]	7.69*		0.85
OCI-R Obsessing	P, C	1.94 (2.61)[a]	6.42 (3.45)[b]	0.30 (0.79)[c]	43.38**		0.88
OCI-R Ordering	P, C	4.12 (3.04)[a]	3.68 (3.73)[a]	1.11 (1.37)[b]	17.12**		0.85
OCI-R Washing	P, C	0.88 (1.86)[a]	4.53 (4.18)[b]	0.25 (0.72)[a]	29.28**		0.88

OCD = obsessive–compulsive disorder. NCC = nonclinical controls. SI-R = Saving Inventory-Revised. CIR = Clutter Image Rating. BDI-II = Beck Depression Inventory-II. BAI = Beck Anxiety Inventory. OCI-R = Obsessive–Compulsive Inventory-Revised. P = participant, E = experimenter, C = clinic, H = home. Within each row, groups with different superscript letters are significantly different from one another (Tukey HSD follow-up test), $P<0.05$. Figures are presented as mean (standard deviation) unless otherwise noted. *$P<0.05$. **$P<0.001$.

correspond most closely to analogous scales on other measures of hoarding and psychological distress.

2. Method

2.1. Participants

Participants were 136 adults (age 18 or older), 73 of whom were identified as having compulsive hoarding. Although in most cases group status was unambiguous, when unclear, one of the authors incorporated information from several assessments of hoarding including a lengthy clinical interview,[1] CIR and SI-R (see below for details). Also included in this study were 19 participants who met criteria for OCD without hoarding and 44 non-clinical control (NCC) participants who denied any history of psychiatric disorder or treatment. Of the 73 hoarding participants, 14 (19%) were recruited as part of a study of cognitive–behavioural therapy; the remaining hoarding participants, as well as all of the OCD and NCC participants, were recruited via newspaper and Internet advertisements as part of a study of the psychopathology of hoarding.

2.2. Materials

2.2.1. Hoarding Rating Scale-Interview (HRS-I)

The HRS-I (see Appendix A) consists of five questions intended to reflect the proposed dimensions of hoarding: Difficulty using living spaces due to clutter, difficulty discarding possessions, excessive acquisition of objects, emotional distress due to hoarding behaviours and functional impairment due to hoarding behaviours. Each item is rated on a nine-point scale from 0 (none) to 8 (extreme). The interviewer asks the initial questions, probing with follow-up questions (based on clinician judgment) as needed to make an independent rating of severity. A total HRS-I score was derived by calculating the sum of all five items. All raters were trained in the use of the HRS-I by one of the study authors (ROF) who developed the initial criteria for the condition and has extensive experience interviewing hoarders.

2.2.2. Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV; Brown et al., 1994)

The ADIS-IV was used to diagnose anxiety (including OCD), mood, somatoform and substance use disorders and to screen for the presence of psychosis and other conditions. The ADIS-IV has produced good to excellent reliability estimates for the majority of anxiety and mood disorders (Brown et al., 2001). For the present study, hoarding obsessions and compulsions were omitted from the diagnosis of OCD.

Experimenters for the present study were trained in the ADIS-IV by staff working with the test developer, and matched a previously trained rater's diagnoses on three consecutive observed assessments.

2.2.3. Saving Inventory-Revised (SI-R; Frost et al., 2004)

The SI-R is a 23-item questionnaire with 3 factor-analytically defined subscales for Clutter, Difficulty Discarding and Acquisition. It showed good internal consistency and test–retest reliability, as well as known group validity and concurrent and divergent validity in clinical and non-clinical samples.

2.2.4. Clutter Image Rating (CIR; Frost et al., 2008)

The CIR is a pictorial measure of clutter severity rated by the participant in the clinic and during the home visit, and by the interviewer during the home visit. This scale contains three cards, each containing nine equidistant, standardised photographs of severity of clutter, with one card for each of three main rooms of most people's homes: living room, kitchen and bedroom. Participants and independent raters select the photograph that most closely resembles the level of clutter in each room of the participant's home. Previous research indicates strong internal consistency, test–retest reliability, and inter-rater reliability. Convergent validity is evident in the CIR's stronger correlations with measures of clutter than with other hoarding and psychopathology scales (Frost et al., 2008). Participants completed the CIR in the clinic and in the home; the experimenter also completed the CIR in the home.

2.2.4. Beck Depression Inventory-II (BDI-II; Beck et al., 1996b)

The BDI-II is a 21-item self-report inventory that measures the severity of depression and reflects DSM-IV criteria for a major depressive episode. It shows good internal consistency and has reasonable construct validity (Beck et al., 1996a; Beck et al., 1996a,b).

2.2.6. Beck Anxiety Inventory (BAI; Beck et al., 1988)

The BAI consists of 21 items that assess the severity of self-reported anxiety. Each item describes a particular symptom. The BAI shows high internal consistency and satisfactory test–retest reliability (Beck et al., 1988).

2.2.7. Obsessive–Compulsive Inventory-Revised (OCI-R; Foa et al., 2002)

The OCI-R is an 18-item self-report measure of OCD symptoms containing Hoarding, Checking, Neutralising, Obsessing, Ordering, and Washing subscales. These subscales showed good internal consistency, test–retest reliability, and convergent validity with other measures of OCD symptoms (Foa et al., 2002).

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[1] The clinical interview assessed current living situation, hoarding symptoms (including a room-by-room description of clutter and associated impairment), hoarding-related beliefs, course, family history and behavioural observations.