



Hoarding 101: A Review of the Fundamentals

October 20, 2016

Peggy Richter MD

Head, Frederick W. Thompson
Anxiety Disorders Centre

www.sunnybrook.ca/thompsoncentre



Psychiatry
UNIVERSITY OF TORONTO



Sunnybrook

HEALTH SCIENCES CENTRE

when it matters
MOST



Disclosures

In the last 3 years:

- Research studies funded by Canadian Institutes of Health Research, Ontario Mental Health Foundation, International OCD Foundation, Lundbeck
- Honoraria from Lundbeck



Hoarding 101

- For handouts, questions, inquiries:
ThompsonCentreEducation@sunnybrook.ca
(Please put Hoarding 101 in subject line)
- Frederick W. Thompson Anxiety Disorders Centre
www.sunnybrook.ca/thompsoncentre



Hoarding 101

Learning Objectives:

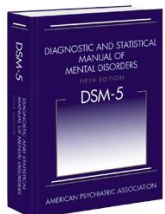
At the end of this session participants will be able to

- 1) Describe the key clinical features of DSM-5 criteria
- 2) Use a number of hoarding rating scales helpful in community settings
- 3) Discuss the different treatment approaches and their effectiveness



DSM-5: Obsessive-Compulsive and Related Disorders

- Obsessive-Compulsive Disorder
- Body Dysmorphic Disorder
- Hoarding Disorder
- Trichotillomania (Hair Pulling Disorder)
- Excoriation (Skin Picking) Disorder
- Substance/Medication-Induced OC and Related Disorder
- OC & Related Disorder Due to Another Medical Condition
- Other Specified OC & Related Disorder
- Unspecified OC & Related Disorder



DSM-5 Hoarding Disorder

NEW!

- A. Persistent difficulty discarding or parting with possessions, regardless of their actual value
- B. Difficulty is due to a perceived need to save the items and distress associated with discarding them
- C. Results in accumulation of possessions that congest and clutter living areas and substantially compromises their intended use.
- D. Clinically significant distress/impairment in social, occupational or other important area of functioning (including maintaining a safe environment for self/others)
- E. Not attributable to another medical condition
- F. Not better explained by another mental disorder

Specify if: with excessive acquisition

insight is good/fair, poor, absent/delusional



Characteristics of Hoarding

- Community prevalence 1.5-6%
 - Prevalence in OCD: 30%
- Rate increases with age:
 - 2.3% aged 34-44
 - 6.2% among age 55 and above
- Course of illness: typically chronic
- Insight typically develops later
- Average age at treatment = 50



Koran et al, 2006; Mueller et al, 2009; Samuels et al, 2008;
Grisham et al, 2006 Steketee & Frost, 2007; Tolin et al, 2010;
Nordsletten et al, 2013



Hoarding Safety Concerns

- Fires
- Falls
 - Consider mobility, frailty, medications, medical conditions, visual or hearing impairment
- Infestations
- Ability to enter and exit the home and essential rooms
 - Kitchen, bathrooms, fire escapes
- Ability to access emergency services
- Hygiene/risk of infection/air quality



StarTribune | st. paul

Thursday, December 5, 2013
10:31 PM EST



thestar.com

GTA

FREE SATURDAY STAR with a DIGITAL ACCESS SUBSCRIPTION

HOME

NEWS

- GTA
- Queen's Park
- Canada
- World
- Investigations
- Crime

YOUR TORONTO

OPINION

SPORTS

BUSINESS

ENTERTAINMENT

LIFE

PHOTOS

DIVERSIONS

CLASSIFIEDS

OBITUARIES

News / GTA

City cleans hoarder's house after lengthy fight

Fire officials are clearing mounds of belongings out of a house in Davisville after a lengthy fight with a hoarder.

Text size: + - Reset



Report an Error

+ save to mystar



VIEW 2 PHOTOS

CHRIS SO / TORONTO STAR Order this photo

The city boarded up Dennis Cibulka's home 18 months ago after deeming it a fire hazard. Cibulka, 63, has lived in the house for more than 50 years and says he isn't a hoarder.

By: **Liam Casey** GTA, **Joel Eastwood** Staff Reporter, Published on Fri Nov 29 2013

Dennis Cibulka says he isn't a hoarder. The fire department disagrees. Cibulka has been yelling at firefighters for the past three days as they empty mounds of belongings from his Davisville home.

EXPLORE THIS STORY

2 PHOTOS

29 COMMENTS

+ save to mystar

The city boarded up his home 18 months ago after deeming it a fire hazard — so full they said they couldn't open the

debris," Papapietro said Monday.

Inside thestar.com



The Nelson Mandela I knew: Stephen Lewis



Senate scandal: A cover-up in broad daylight: Tim

EXTRA D IN DE

THE BMW
PIER NEW YEAR
SALES EVENT



The 2014 BMW X1 xDrive
LEASE/PURCHASE/RENT
\$298
PER MONTH
TAXES AND LICENSING
NO-OWNERS REQUIRED MAP

EVENT ENDS JAN 2.

Obituaries Classifieds Auto

Voices | Blogs + Columns

SPORT TECH LIFE PROPERTY ARTS + ENTS TRAVEL MONEY II

ople / Science / Environment / Media / Technology / Education / Images / Ot

Thursday, December 5, 2013
10:28 PM EST



thestar.com

CRIME

FREE SATURDAY STAR with a DIGITAL ACCESS SUBSCRIPTION

HOME

NEWS

- GTA
- Queen's Park
- Canada
- World
- Investigations
- Crime

YOUR TORONTO

OPINION

SPORTS

BUSINESS

ENTERTAINMENT

LIFE

PHOTOS

DIVERSIONS

CLASSIFIEDS

OBITUARIES

News / Crime

More than 50 cats seized from Beach home

The number of caught cats and kittens linked to a cat hoarder's Beach house has climbed to more than 50, as of Monday.

Text size: + - Reset



Report an Error

+ save to mystar



VALERIE HAUCH / TORONTO STAR FILE PHOTO

The City of Toronto hired contractors to clean up the exterior of a Beach home it identified as having a "cat hoarding" problem.

By: **Valerie Hauch** News reporter, Published on Mon Sep 30 2013

The number of caught cats and kittens linked to a Beach house identified by City of Toronto officials as a "cat hoarding site" has climbed to more than 50, as of Monday.

One cat and a kitten were live trapped inside the house Monday by the Ontario SPCA which recently obtained a warrant to enter the Beech Ave. house and set traps. Windows and openings were sealed off. On Saturday

EXPLORE THIS STORY

1 PHOTO

+ save to mystar

f Share

Twitter

14

Inside thestar.com



The Nelson Mandela I knew: Stephen Lewis



Senate scandal: A cover-up in broad daylight: Tim



Manifestations of Hoarding:

1. Compulsive Acquiring
2. Saving
3. Disorganization



Manifestations of Hoarding:

1. Compulsive Acquiring

- Compulsive buying
 - Retail/discount
 - Ebay, web shopping
 - Home shopping network
- Compulsive acquiring of free things
 - Advertising flyers/handouts
 - Give-aways
 - Trash picking, dumpster diving



Manifestations of Hoarding:

2. Saving

- Reasons for saving
 - Sentimental “this helps me remember. This represents my life. It’s part of me.”
 - Instrumental “I might need this. I could fix this. Somebody could use this. Think of the potential!”
 - Intrinsic “Isn’t this beautiful?!”
- While most people share the same reasons for saving, hoarders apply these reasons to more things



“This reminds me of the day I had lunch with my cousin in California. I might forget about that day if I throw out this receipt””



“I love the glasswork on this vase. I know it’s chipped but it’s still so beautiful”



“These are perfectly good bike parts. Once I fix them, they’ll be perfect for my nephews.”

Steketee & Frost, 2007

Manifestations of Hoarding:

3. Disorganization

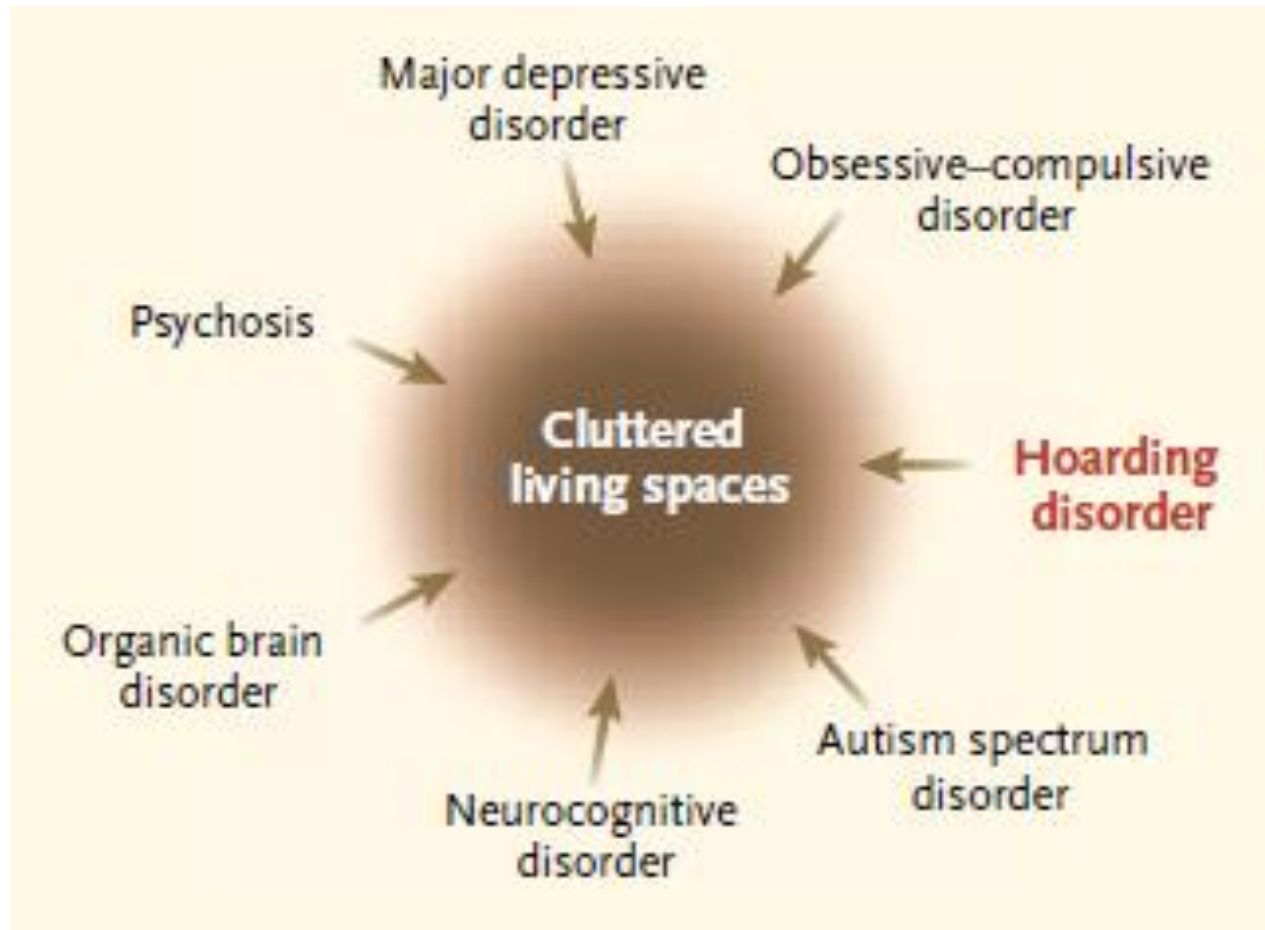
- Condition of the home
 - Clutter
 - Mixture of important and unimportant items
- Behaviour
 - Fear of putting things out of sight
 - Indecisiveness – churning
 - Categorization problems



May be slow at completing tasks, frequently late, use circumstantial/over-inclusive language



Differential Diagnosis of Hoarding Disorder



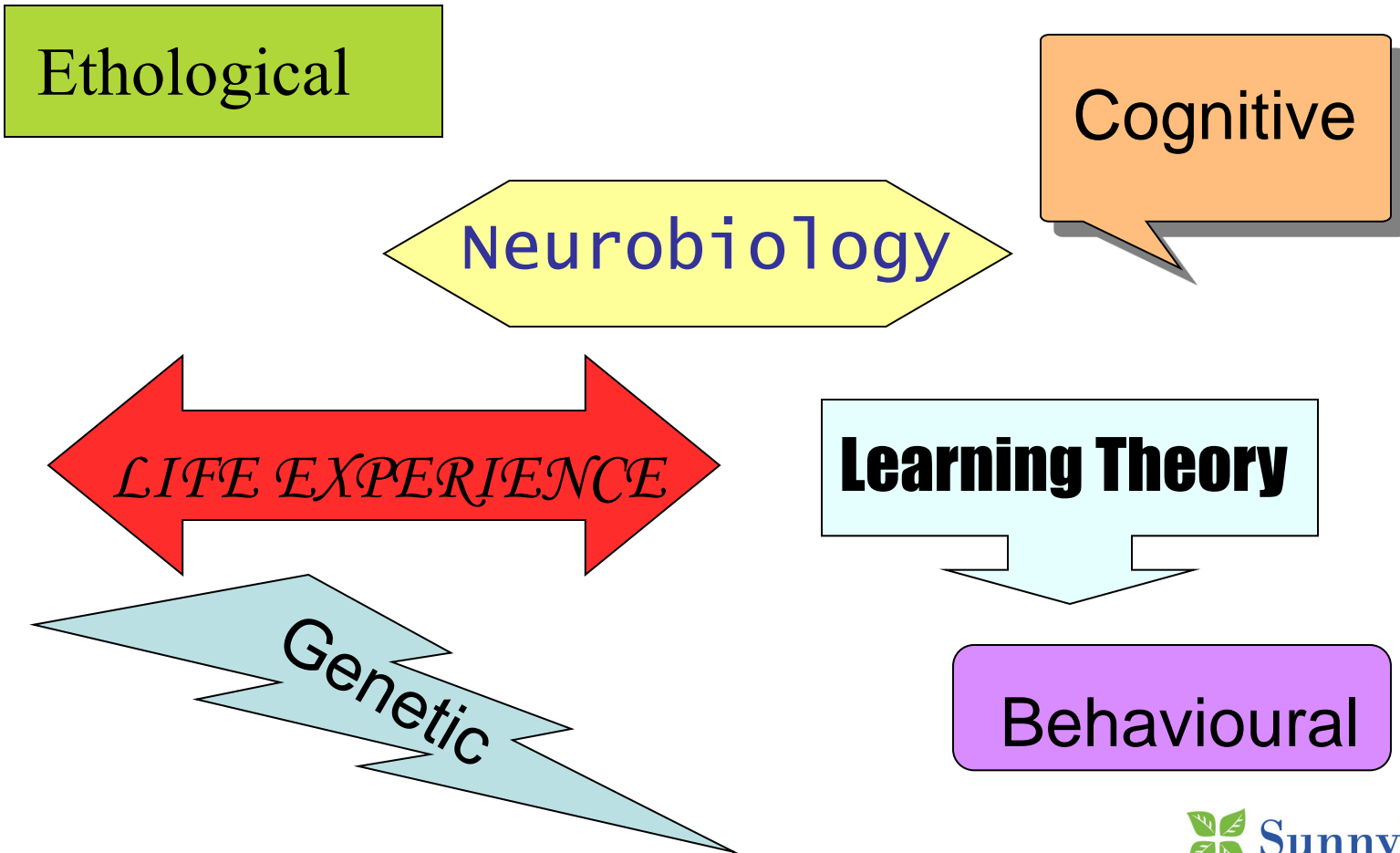


Hoarding may be comorbid with other mental conditions...

- among cases with severe domestic squalor:
 - dementia (22%)
 - schizophrenia/schizoaffective disorder (21%)
 - substance use disorder (10%)
 - OCD most common in cases referred to therapists
- Frost et al, 2011: studied N=217 hoarders
 - 18% hoarders had OCD
 - High comorbidity with depression, anxiety (similar to OCD)
 - Hoarding associated with ADHD (28% vs. 3% in OCD)



Why do people hoard?



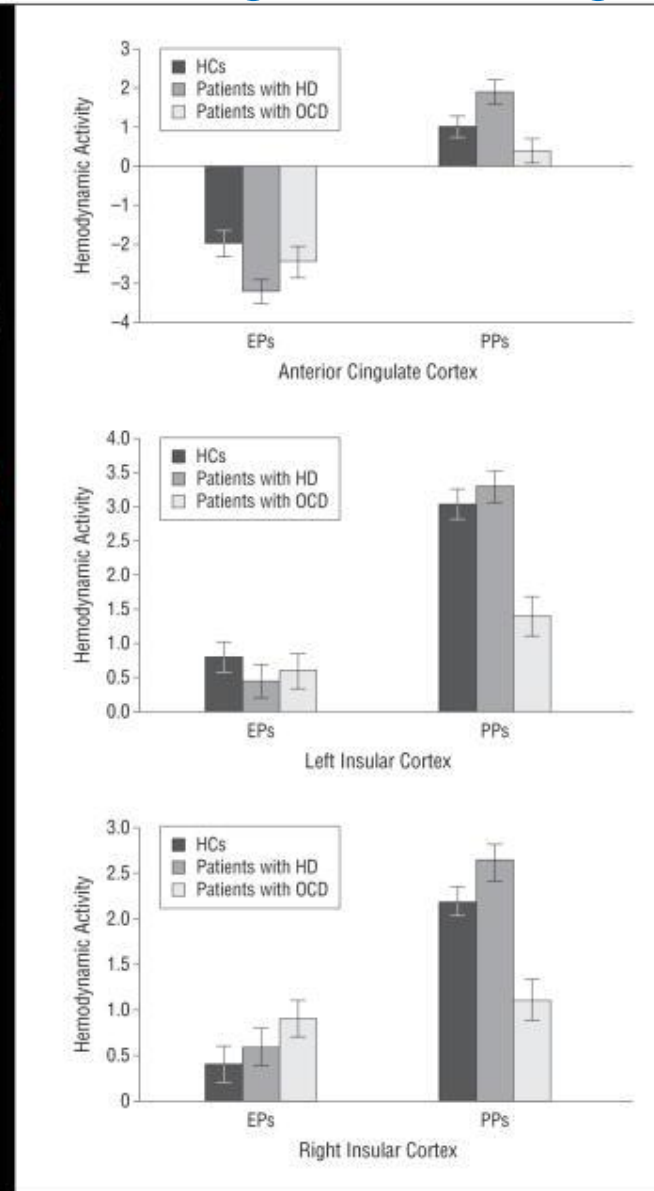
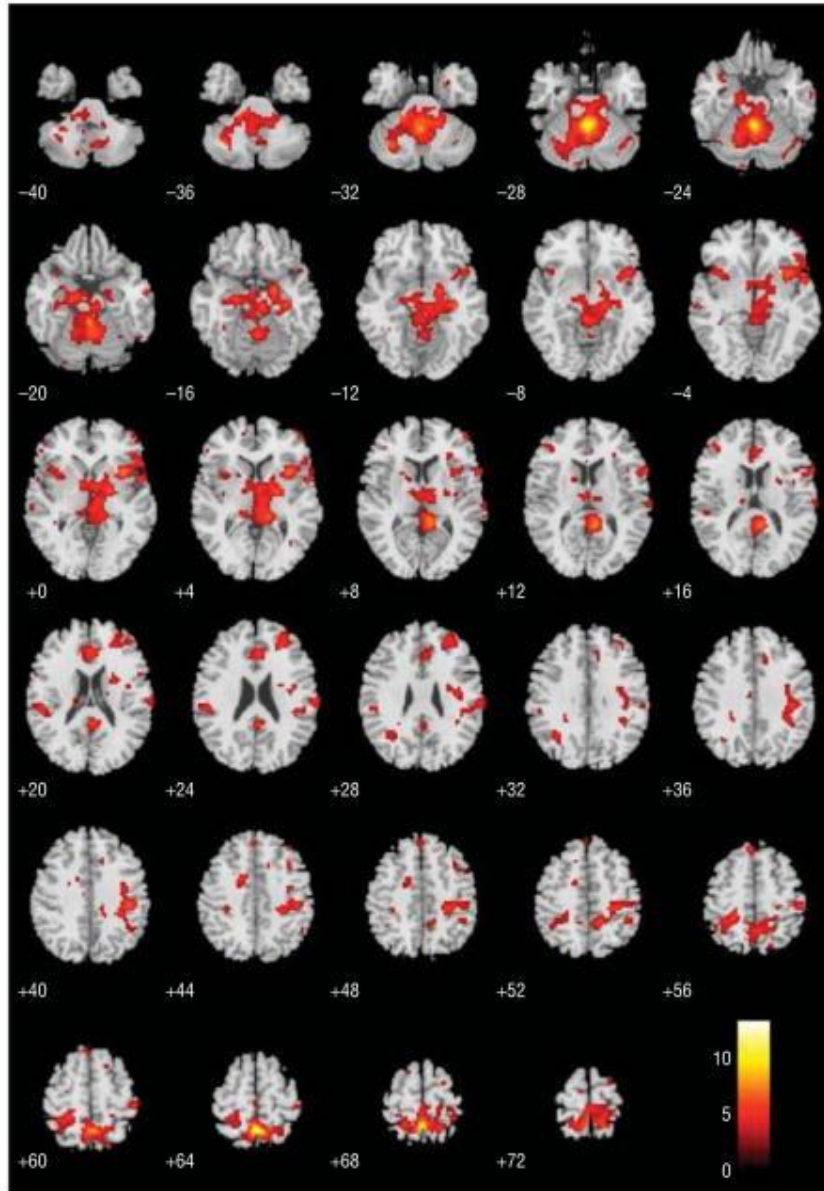


Is Hoarding Genetic?



- Hoarding runs in families
 - 50-85% of hoarders report 1st degree relative who is a “packrat”
 - 26-54% report family members with OCD
- Heritability of hoarding is 71%
- In a study of >5,000 twins, genetic factors accounted for 50% of variance, along with nonshared environmental factors, error
- Genetic studies suggest hoarding ≠ OCD

Neural Mechanisms of Decision Making in Hoarding Disorder



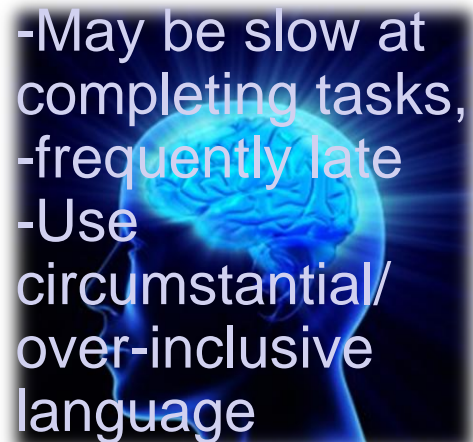
Tolin et al, Arch Gen Psych 2012

Increased hemodynamic activity for patients with hoarding disorder (HD), patients with obsessive-compulsive disorder (OCD), and healthy control subjects (HCs) while deciding about experimenter's possessions (EPs) vs personal possessions (PPs). Error bars indicate mean (SD).

Hoarding Disorder is associated with difficulties in cognition

Planning/
Decisions

-May be slow at completing tasks,
-frequently late
-Use circumstantial/
over-inclusive language



Visuospatial
learning/
memory

Organization

Attention/
Working
memory

PATTERNS OF CLINICALLY SIGNIFICANT COGNITIVE IMPAIRMENT IN HOARDING DISORDER

Mackin et al, Depression and Anxiety; 33:211–218 (2016)

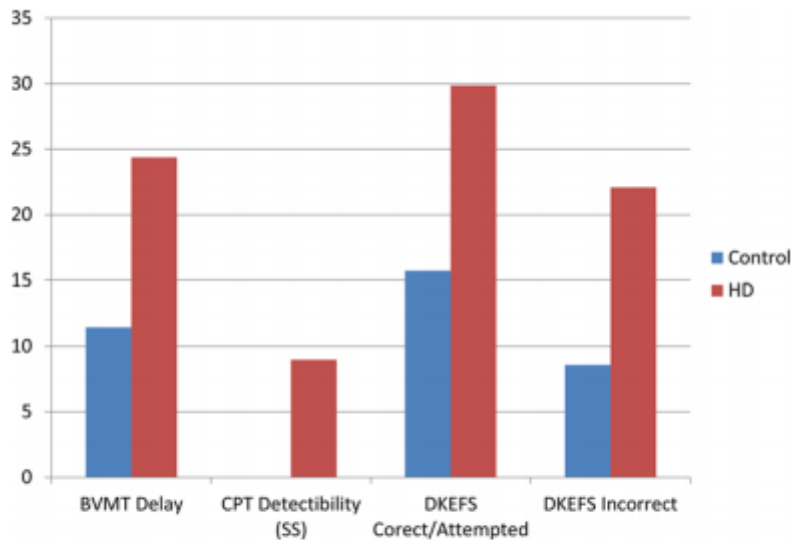


Figure 1. Percent of participants with clinically significant impairment on selected neuropsychological measures. HD, hoarding disorder; BVMT, Brief Visuospatial Memory Test; D-KEFS, Delis–Kaplan Executive Function System; Blue, HD participants; Red, Control participants.

TABLE 2. Rates of cognitive impairment in HD relative to control groups

NP test	Control: % impaired <6	HD: % impaired <6	$\chi^2; P$
Visual learning and memory			
BVMT-D	11.43	24.36	4.14; .04
BVMT-L	17.14	25.64	1.57; .21
Verbal learning and memory			
HVLT-D	6.25	6.41	0.00; .97
HVLT-L	7.14	6.41	0.03; .86
Visuospatial processing			
Block design	0.00	1.30	0.52; .47
Abstract reasoning			
Similarities	1.45	4.35	0.68; .41
Matrix reasoning	1.85	3.51	0.29; .59
Attention/working memory			
Digit-span	0.00	0.00	na
Letter–number sequencing	2.90	0.00	0.68; .41
Information processing speed			
SDMT	7.14	15.38	2.47; .12
Stroop CW	2.94	5.13	0.44; .51
Visual	12.50	26.92	3.20; .07
detection/perseveration			
CPT hit-rate (SS)			
CPT perseveration (SS)	17.50	17.95	0.00; .96
CPT detectability (SS)	0.00	8.97	3.81; .05
Visual categorization and problem solving			
D-KEFS correct/attempted	15.71	29.87	4.13; .04
D-KEFS incorrect	8.57	22.08	5.07; .02
Tower test	2.50	8.33	1.142; .29

HD, hoarding disorder; HVLT, Hopkins Verbal Learning Test; BVMT, Brief Visuospatial Memory Test; SDMT, Symbol Digit Modalities Test; CPT, Conners' Continuous Performance Test; D-KEFS, Delis–Kaplan Executive Function System.

Error-related brain activity dissociates hoarding disorder from obsessive-compulsive disorder

Mathews et al, Psychological Medicine (2016), 46, 367–379.

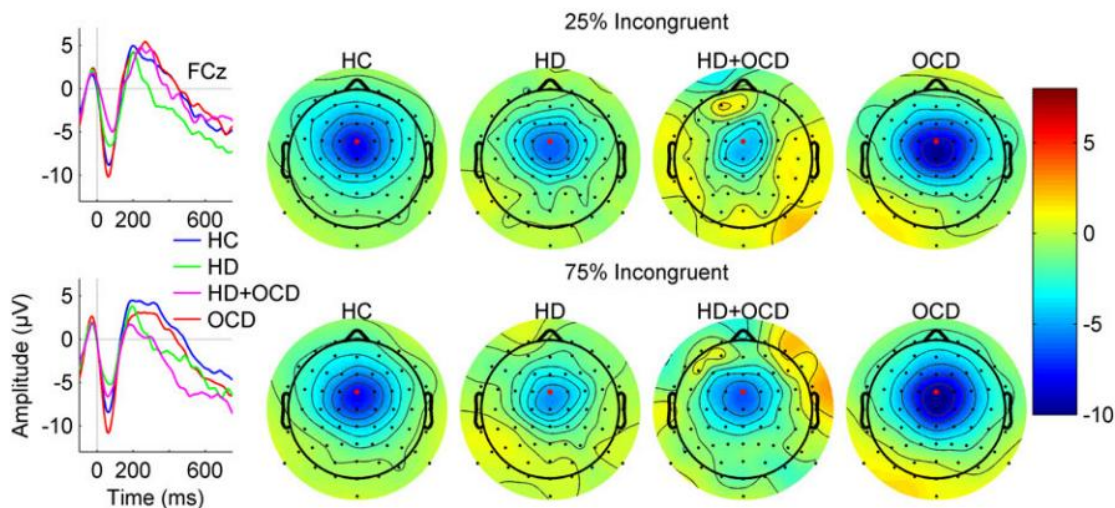


Fig. 1. Left: Grand average ERP waveforms. Grand average ERP waveforms for response-locked error trials for age-matched healthy control (HC; blue), hoarding disorder (HD; green), co-morbid HD and obsessive-compulsive disorder (HD+OCD; magenta) and obsessive-compulsive disorder (OCD; red) participants. Waveforms are from FCz (indicated by red dot on topographic maps). The x-axis presents time in milliseconds from -100 ms (pre-response) to 750 ms (post-response) relative to the button press at 0 ms (vertical dotted line). The y-axis presents amplitude in microvolts (μV). Right: Scalp topography maps display error-related negativity (ERN) amplitudes averaged over a time window centered on the grand mean ERP peak latency (50 – 60 ms after the response event). Color bar indicates amplitude values in μV . Note the frontocentral distribution of the ERN, and the attenuated ERN for HD-positive individuals relative to HC and OCD groups for the 25% (top panel) and the 75% (bottom panel) probability conditions in incongruent trials.

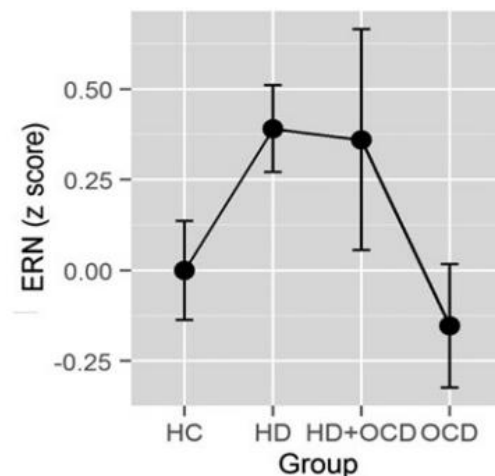


Fig. 2. Mean (\pm S.E.) error-related negativity (ERN) amplitude age-corrected z scores, averaged across probability and electrode in incongruent trials, plotted for each group. Note larger age-corrected ERN deficits (i.e. less negative ERN) in HD-positive individuals relative to HC and OCD participants. HC, Healthy controls; HD, hoarding disorder; HD+OCD, co-morbid hoarding disorder and obsessive-compulsive disorder; OCD, obsessive-compulsive disorder.



Hoarding Assessment and Rating Scales



Assessing Potential Hoarders

- Questions to ask someone who acknowledges “clutter”:
 - Are your belongings in piles along the sides of some/most rooms? How high?
 - Are you limited to pathways in some rooms?
 - Or are you walking on “goat paths” over piles?
 - Are any rooms so cluttered that they’re difficult to use/unusable? i.e. no longer sleeping in bed, kitchen too full to use, no access to bathtub?
 - Do you feel your clutter is a problem?
 - Are you willing to work on getting rid of things?

Clutter Image Rating Scale: Kitchen

Please select the photo below that most accurately reflects the amount of clutter in your room.



1



2



3



4



5



6



7



8



9

Clutter Image Rating: Living Room

Please select the photo below that most accurately reflects the amount of clutter in your room.



1



2



3



4



5



6



7



8



9

Clutter Image Rating: Bedroom

Please select the photo that most accurately reflects the amount of clutter in your room.



1



2



3



4



5



6



7



8



9

Massachusetts Department of Developmental Services Risk Management

HOMES[®] Multi-disciplinary Hoarding Risk Assessment

Health

- | | | | |
|--|---|--|---|
| <input type="checkbox"/> Cannot use bathtub/shower | <input type="checkbox"/> Cannot prepare food | <input type="checkbox"/> Presence of spoiled food | <input type="checkbox"/> Presence of insects/rodents |
| <input type="checkbox"/> Cannot access toilet | <input type="checkbox"/> Cannot sleep in bed | <input type="checkbox"/> Presence of feces/Urine (human or animal) | <input type="checkbox"/> Presence of mold or chronic dampness |
| <input type="checkbox"/> Garbage/Trash Overflow | <input type="checkbox"/> Cannot use stove/fridge/sink | <input type="checkbox"/> Cannot locate medications or equipment | |

Notes: _____

Obstacles

- | | |
|---|---|
| <input type="checkbox"/> Cannot move freely/safely in home | <input type="checkbox"/> Unstable piles/avalanche risk |
| <input type="checkbox"/> Inability for EMT to enter/gain access | <input type="checkbox"/> Egresses, exits or vents blocked or unusable |

Notes: _____

Mental health (Note that this is not a clinical diagnosis; use only to identify risk factors)

- | | | |
|--|--|--|
| <input type="checkbox"/> Does not seem to understand seriousness of problem | <input type="checkbox"/> Defensive or angry | <input type="checkbox"/> Unaware, not alert, or confused |
| <input type="checkbox"/> Does not seem to accept likely consequence of problem | <input type="checkbox"/> Anxious or apprehensive | |

Notes: _____

Endangerment (evaluate threat based on other sections with attention to specific populations listed below)

- | | |
|--|---|
| <input type="checkbox"/> Threat to health or safety of child/minor | <input type="checkbox"/> Threat to health or safety of person with disability |
| <input type="checkbox"/> Threat to health or safety of older adult | <input type="checkbox"/> Threat to health or safety of animal |

Notes: _____

Structure & Safety

- | | | | |
|---|---------------------------------------|---|--|
| <input type="checkbox"/> Unstable floorboards/stairs/porch | <input type="checkbox"/> Leaking roof | <input type="checkbox"/> Electrical wires/cords exposed | <input type="checkbox"/> No running water/plumbing problems |
| <input type="checkbox"/> Flammable items beside heat source | <input type="checkbox"/> Caving walls | <input type="checkbox"/> No heat/electricity | <input type="checkbox"/> Blocked/unsafe electric heater or vents |
| <input type="checkbox"/> Storage of hazardous materials/weapons | | | |

Notes: _____

Hoarding Rating Scale

Please use the following scale when answering items below:

- 0 = no problem
- 2 = mild problem, occasionally (less than weekly) acquires items not needed, or acquires a few unneeded items
- 4 = moderate, regularly (once or twice weekly) acquires items not needed, or acquires some unneeded items
- 6 = severe, frequently (several times per week) acquires items not needed, or acquires many unneeded items
- 8 = extreme, very often (daily) acquires items not needed, or acquires large numbers of unneeded items

1. Because of the clutter or number of possessions, how difficult is it for you to use the rooms in your home?

0 1 2 3 4 5 6 7 8
 Not at all Mild Moderate Severe Extremely
 Difficult Difficult

2. To what extent do you have difficulty discarding (or recycling, selling, giving away) ordinary things that other people would get rid of?

0 1 2 3 4 5 6 7 8
 No Mild Moderate Severe Extreme
 difficulty Difficulty

3. To what extent do you currently have a problem with collecting free things or buying more things than you need or can use or can afford?

0 1 2 3 4 5 6 7 8
 None Mild Moderate Severe Extreme

4. To what extent do you experience emotional distress because of clutter, difficulty discarding or problems with buying or acquiring things?

0 1 2 3 4 5 6 7 8
 None/ Mild Moderate Severe Extreme
 Not at all

5. To what extent do you experience impairment in your life (daily routine, job / school, social activities, family activities, financial difficulties) because of clutter, difficulty discarding, or problems with buying or acquiring things?

0 1 2 3 4 5 6 7 8
 None/ Mild Moderate Severe Extreme
 Not at all

Interpretation of HRS Total Scores (Tolin et al., 2010)

Mean for Nonclinical samples: HRS Total = 3.34; standard deviation = 4.97.

Mean for people with hoarding problems: HRS Total = 24.22; standard deviation = 5.67.

Analysis of sensitivity and specificity suggest an HRS Total clinical cutoff score of 14.

Criteria for Clinically Significant Hoarding: (Tolin et al., 2008)

A score of 4 or greater on questions 1 and 2, and a score of 4 or greater on either question 4 or question 5.

Tolin, D.F., Frost, R.O., & Steketee, G. (2010). A brief interview for assessing compulsive hoarding: The Hoarding Rating Scale-Interview. *Psychiatry Research, 178*, 147-152.

ALL-NEW
2011
EDITION

CLUTTER – HOARDING SCALE[©]

a residential observational tool

FIVE LEVELS. FIVE CATEGORIES.



1693 S. Hanley Rd. | St. Louis, MO 63144
314.416.2236

ALL-NEW CHS QUICK REFERENCE GUIDE ALSO AVAILABLE!
visit www.challengingdisorganization.org for more information

www.challengingdisorganization.org

Five Levels

The ICD has established five levels to indicate the degree of household clutter and/or hoarding from the perspective of a professional organizer or related professional.

The levels in the scale are progressive, with Level I as the lowest and Level V the highest. The ICD considers Level III to be the pivot point between a household that might be assessed as cluttered, and a household assessment that may require the deeper considerations of working in a hoarding environment.

LEVEL	COLOR	LEVEL OF CLUTTER – HOARDING
I	GREEN	LOW
II	BLUE	GUARDED
III	YELLOW	ELEVATED
IV	ORANGE	HIGH
V	RED	SEVERE

OCD Treatment Guidelines

- CPA Guidelines – 2006



Canadian Psychiatric Association
Dedicated to quality care
Association des psychiatres du Canada
Dévouée aux soins de qualité

July 2006, Vol 51, 3

CLINICAL PRACTICE
Management of Anxiety

- NICE (National Institute for Health
Clinical Excellence) Guideline
2005

Hoarding Treatment Guidelines...?

- APA Guidelines – 2007



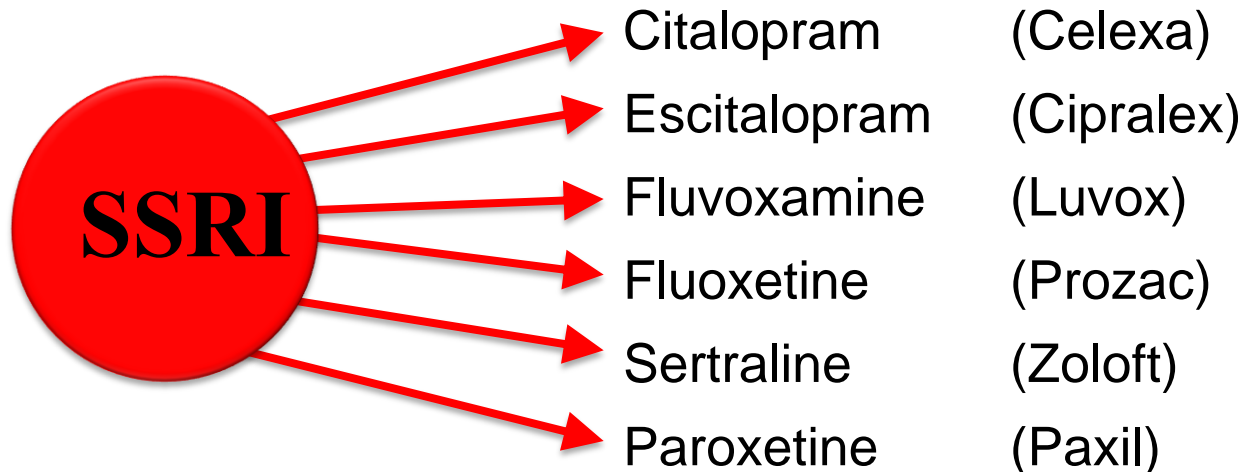
AMERICAN PSYCHIATRIC ASSOCIATION
PRACTICE GUIDELINES

- Canadian Clinical Practice Guideline
2014 BMC Psychiatry



Medications for Hoarding

- SSRI
 - Generally very well tolerated
 - Effective for common comorbidity
 - BUT may have limited efficacy for hoarding!



Do Existing Treatments Work???



Meta-analysis: hoarding symptoms associated with poor treatment outcome in obsessive-compulsive disorder

MH Bloch¹, CA Bartley², L Zipperer², E Jakubovski², A Landeros-Weisenberger², C Pittenger^{1,3} and JF Leckman^{3,4}

Molecular Psychiatry advance online publication, 10 June 2014; doi:10.1038/mp.2014.50

Study	OR (95% CI)	Weight
Behavioral		
Olino, 2011	0.56 (0.25 to 1.26)	4.8%
Meyer, 2010 - MI+GCBT	0.83 (0.38 to 1.85)	5.0%
Meyer, 2010 - GCBT	0.61 (0.27 to 1.37)	4.9%
Raffin, 2009	0.93 (0.48 to 1.80)	7.3%
Storch, 2009	0.50 (0.15 to 1.70)	2.2%
Rufer, 2006	0.35 (0.12 to 0.99)	2.9%
Abramowitz, 2003	0.31 (0.10 to 0.95)	2.5%
Mataix-Cols, 2002	0.37 (0.12 to 1.17)	2.5%
	0.60 (0.43 to 0.82)	32%
Combination		
Maher, 2010	0.23 (0.05 to 0.98)	1.5%
Salomoni, 2009	0.24 (0.08 to 0.72)	2.6%
Matsunaga, 2008	0.44 (0.29 to 0.67)	17.5%
Storch, 2008	1.68 (0.55 to 5.09)	2.6%
Ferrao, 2006	1.91 (0.53 to 6.84)	2.0%
Saxena, 2002	0.48 (0.19 to 1.23)	3.7%
Black, 1998	0.11 (0.02 to 0.50)	1.3%
	0.47 (0.34 to 0.65)	31%
Pharmacotherapy		
Landeros, 2010	0.67 (0.11 to 4.07)	1.0%
Masi, 2009	0.15 (0.04 to 0.57)	1.9%
Stein, 2008	0.49 (0.30 to 0.81)	12.7%
Stein, 2007	0.56 (0.33 to 0.97)	11.0%
Shetti, 2005	0.47 (0.15 to 1.54)	2.3%
Erzegovesi, 2001	0.51 (0.20 to 1.36)	3.4%
Mataix-Cols, 1999	0.32 (0.14 to 0.73)	4.6%
	0.46 (0.34 to 0.62)	37%
Overall	0.50 (0.42 to 0.60)	

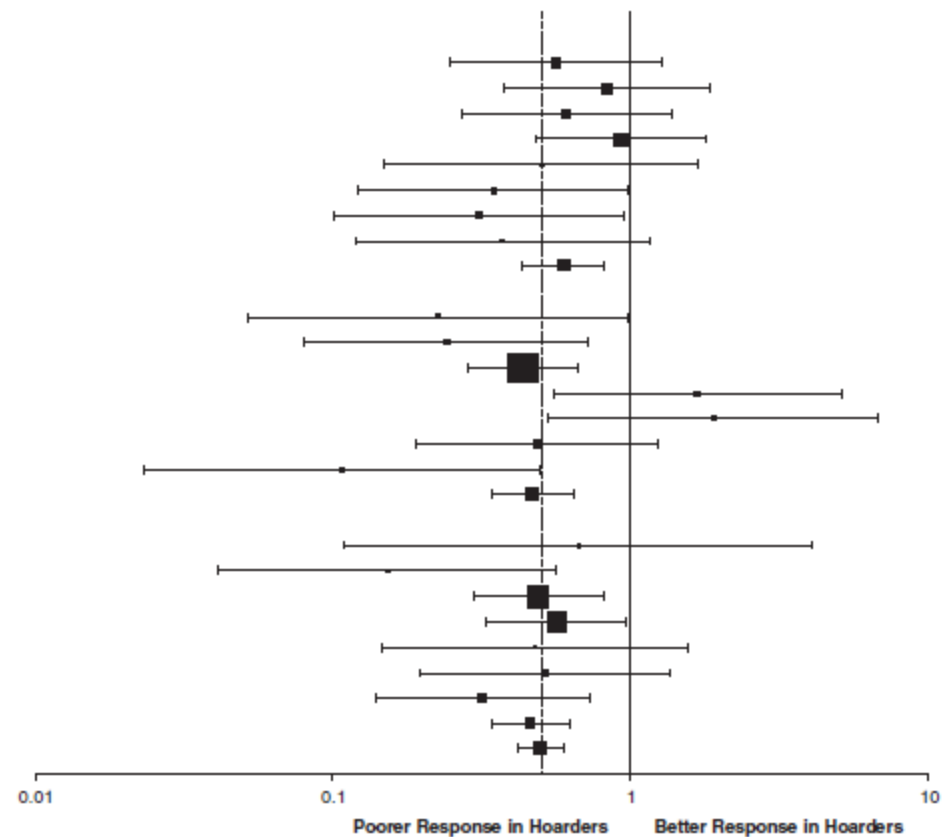


Figure 2. Treatment response in OCD patients with hoarding symptoms compared to OCD patients without hoarding symptoms. Forest Plot examining likelihood of treatment response in OCD patients with hoarding symptoms compared to OCD patients without hoarding symptoms. OCD patients with hoarding symptoms had a significantly poorer treatment response overall and across treatment modalities. There was evidence of significant heterogeneity between trials.



Venlafaxine extended-release treatment of hoarding disorder

Sanjaya Saxena and Jennifer Sumner

International Clinical Psychopharmacology 2014, Vol 29 No 5

Hoarding disorder, classified as a *Diagnostic and Statistical Manual* 5th ed. (DSM-5), is a common, chronic, disabling syndrome that can be difficult to treat. In one previous study prospectively evaluating the efficacy of pharmacotherapy in compulsive hoarders, 100% of hoarders responded as well to paroxetine as to nonhoarding obsessive-compulsive disorder. However, paroxetine was not tolerated by some patients and the overall response was modest. We conducted an open-label trial of venlafaxine extended-release for hoarding disorder. Two

patients who met the DSM-5 criteria for hoarding disorder were treated with venlafaxine extended-release for 12 weeks. All patients were free of psychotropic medications for at least 6 weeks before the study. No other psychotropic medications, cognitive-behavioral therapy, organizers, or cleaning crews were permitted during the study. To measure the severity of hoarding, the Saving Inventory-Revised (SI-R) and the UCLA Hoarding Severity Scale (UHSS) were administered

completed treatment. Hoarding symptoms improved significantly, with a mean 36% decrease in UHSS scores and a mean 32% decrease in SI-R scores. Sixteen of the 23 completers (70%) were classified as responders to venlafaxine extended-release. These results suggest that venlafaxine extended-release may be effective for the treatment of hoarding disorder. *Int Clin Psychopharmacol*

Keywords: compulsive, disorder, extended-release, hoarding, pharmacotherapy, treatment, venlafaxine

Department of Psychiatry, UC San Diego School of Medicine, San Diego, California, USA

Correspondence to Sanjaya Saxena, MD, Department of Psychiatry, UC San Diego School of Medicine, 140 Arbor Drive, San Diego, CA 92103, USA
Tel: +1 619 534 6883; fax: +1 619 543 7537; e-mail: ssaxena@ucsd.edu

Received 30 August 2013 Accepted 25 February 2014



ELSEVIER

Contents lists available at ScienceDirect

Journal of Psychiatric Research

journal homepage: www.elsevier.com/locate/psychires



Atomoxetine for hoarding disorder: A pre-clinical and clinical investigation



Giacomo Grassi ^{a, b, *}, Laura Micheli ^c, Lorenzo Di Cesare Mannelli ^c, Elisa Compagno ^a, Lorenzo Righi ^d, Carla Ghelardini ^c, Stefano Pallanti ^{a, b}

^a University of Florence, Department of Neuroscience, Psychology, Drug Research and Child Health, Neurofarba, via delle Gore 2H, 50141, Florence, Italy

^b Institute of Neuroscience, via La Marmora 24, 50121, Florence, Italy

^c Department of Neuroscience, Psychology, Drug Research and Child Health, Neurofarba, Pharmacology and Toxicology Section, University of Florence, Florence, Italy

^d University of Siena, Department of Molecular and Developmental Medicine, Siena, Italy

ARTICLE INFO

Article history:

Received 2 June 2016

Received in revised form

9 September 2016

Accepted 13 September 2016

Keywords:

Hoarding disorder

Atomoxetine

Marble burying test

Compulsivity

Impulsivity

Attention

ABSTRACT

Despite several studies suggested that inattention and impulsivity-compulsivity could represent two core dimensions of hoarding disorder (HD), only a small case series study investigated the effectiveness of attention-deficit-hyperactivity-disorder (ADHD) medications in HD. The aim of the present study was to target attentional and inhibitory control networks in HD patients through the ADHD medication atomoxetine, moving from a preclinical investigation on an animal model of compulsive-like behavior (marble burying test) to a clinical investigation on both medicated and unmedicated patients with a primary diagnosis of HD without ADHD. Our preclinical investigation showed that acute administration of atomoxetine significantly reduced the compulsive-like behaviours of mice in the marble burying test without affecting neither locomotor activity and coordination nor exploration behaviours. When compared, atomoxetine and fluoxetine showed similar effects on the marble burying test. However, fluoxetine impaired both locomotor and exploratory activity. In our clinical investigation 12 patients were enrolled and 11 patients completed an open trial with atomoxetine at flexible dose (40–80 mg) for 12 weeks. At the endpoint the mean UCLA Hoarding Severity Scale score decreased by 41.3% for the whole group ($p = 0003$). Six patients were classified as full responders (mean symptom reduction of 57.2%) and three patients as partial responders (mean symptom reduction of 27.3%). Inattentive and impulsivity symptoms showed a significant mean score reduction of 18.5% from baseline to the endpoint ($F(1,9) = 20.9, p = 0.0013$). Hoarding symptoms improvement was correlated to reduction of patients' disability and increased in their global functioning. These preclinical and clinical data suggest that atomoxetine may be effective for HD and therefore should be considered for future controlled trials.

© 2016 Elsevier Ltd. All rights reserved.





Cognitive Behavioural Therapy for Hoarding Disorder



Sunnybrook

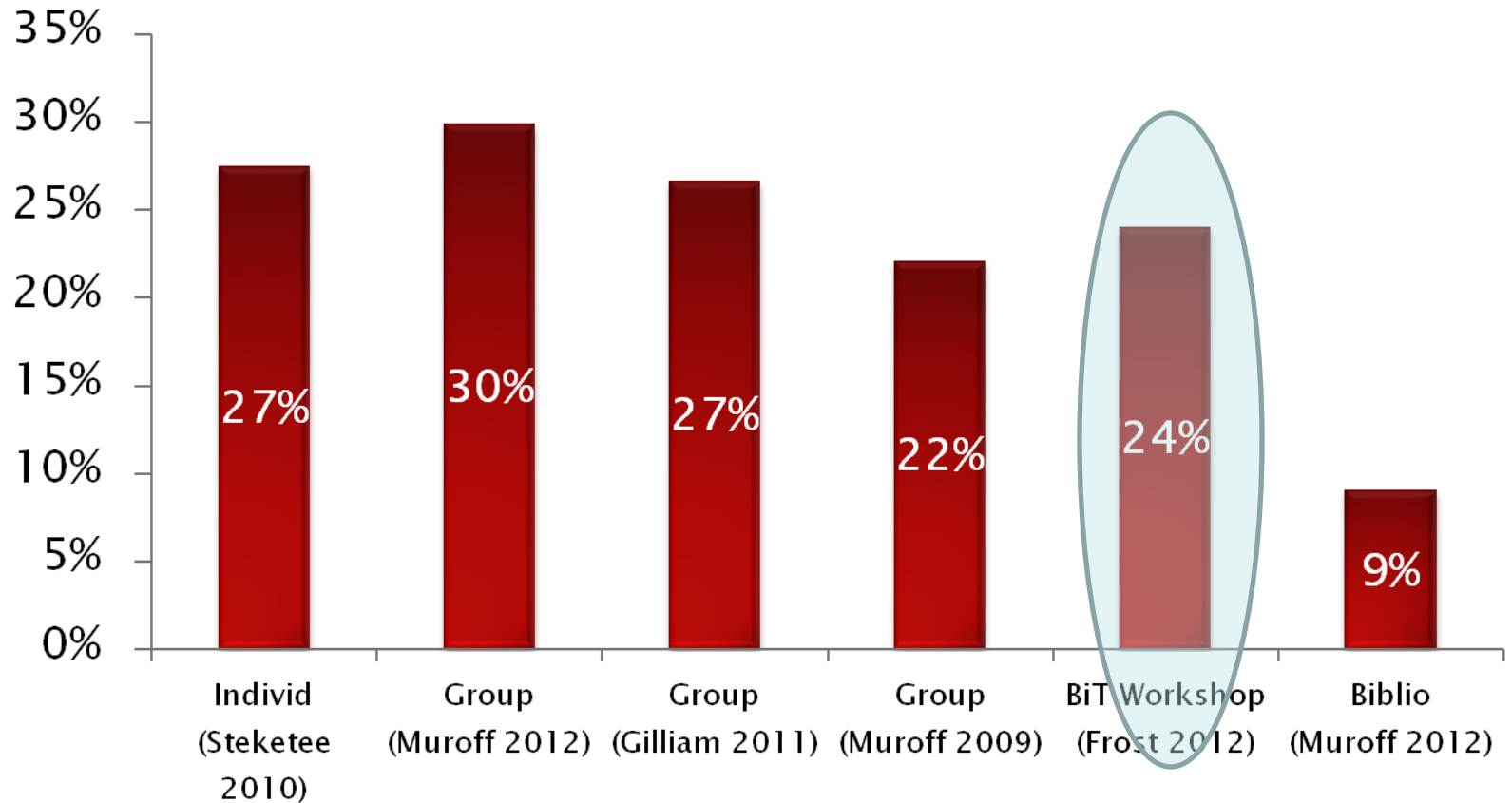
HEALTH SCIENCES CENTRE

when it matters
MOST



CBT for Hoarding Disorder: The Good News for Individual, Group and Bibliotherapy

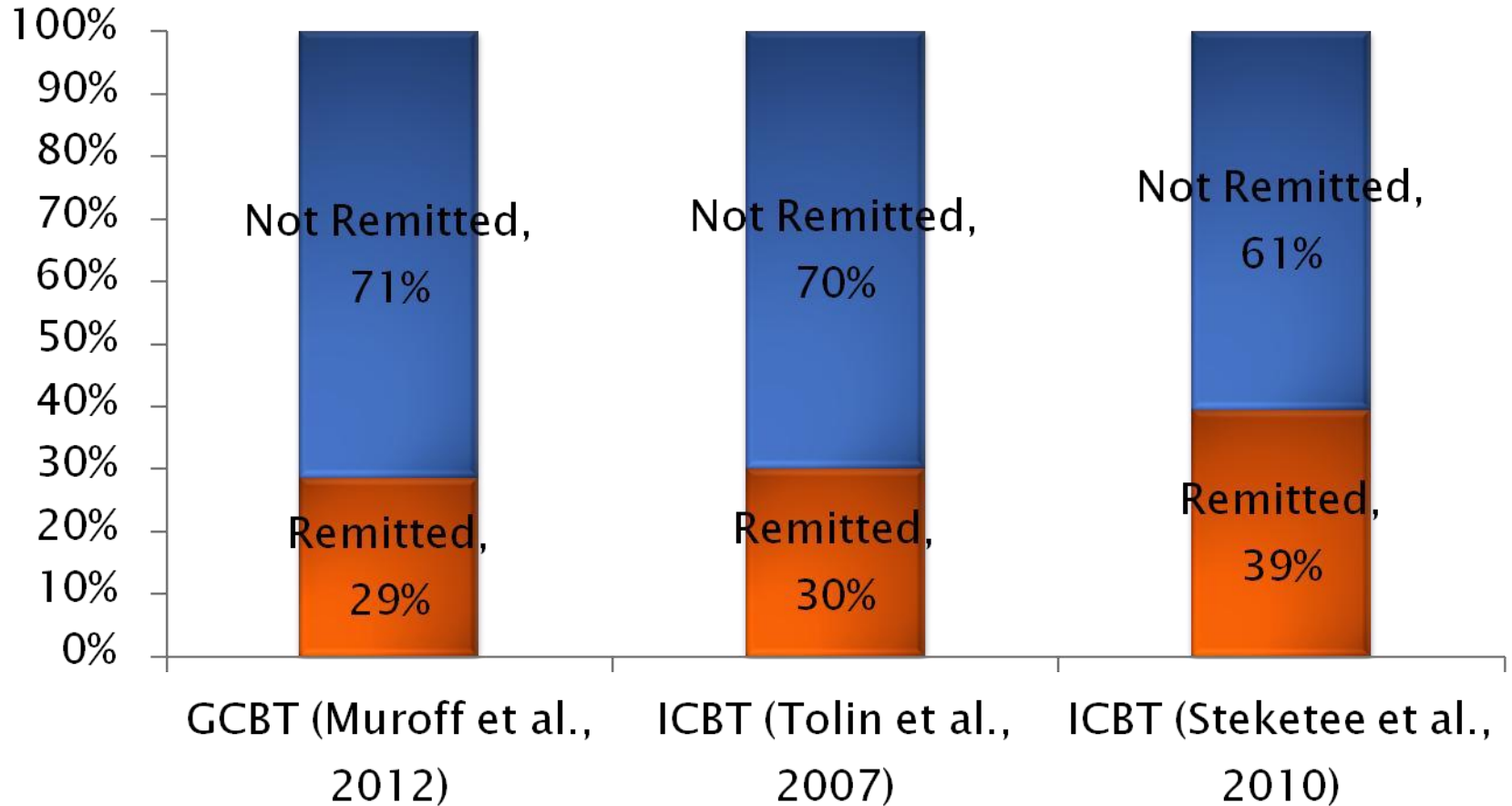
% SI-R Reduction



Courtesy of Dr. Gail Steketee



HOARDING DISORDER: THE BAD NEWS



Courtesy of Dr. Gail Steketee



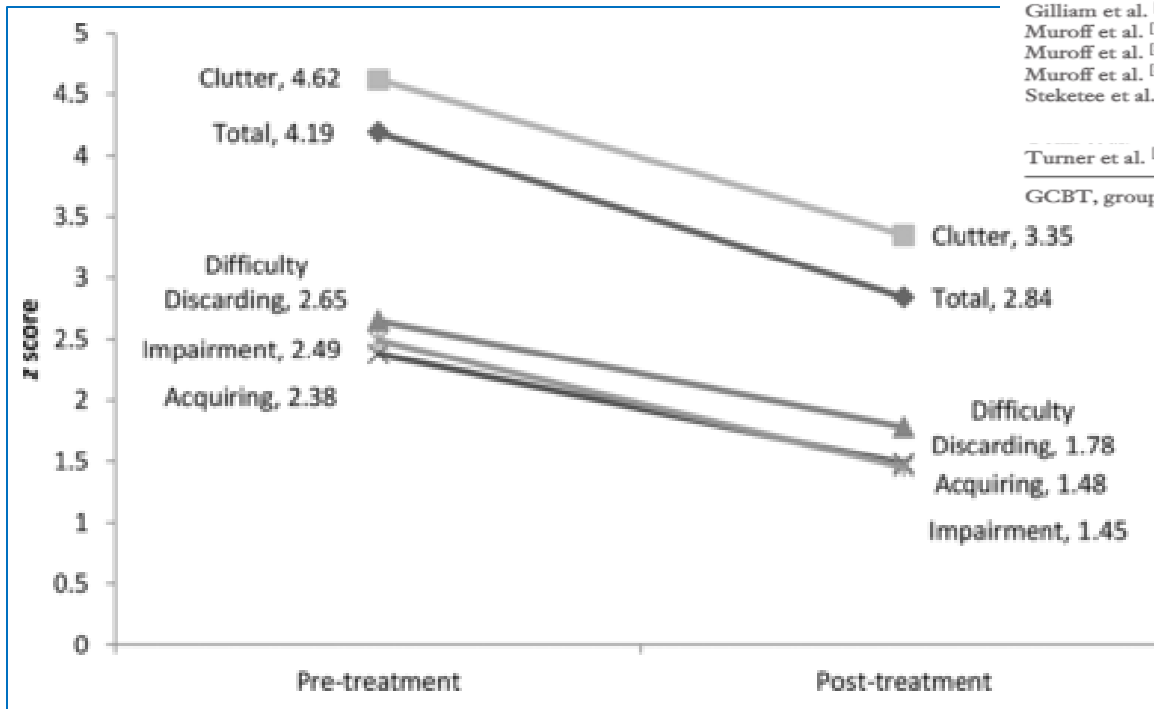
COGNITIVE BEHAVIORAL THERAPY FOR HOARDING DISORDER: A META-ANALYSIS

TABLE 1. Studd in the meta-analysis

Study name	N	Diagnosis required?	Therapist involved?	CBT format	Mean number of sessions	Mean number of sessions in the home
Ayers et al. [12]	12	Yes	Yes	Individual	26	6.5
Frost et al. [20]	17	No	No	Group	13	0
Frost et al. [20]	11	No	No	Group	13	0
Frost et al. [21]	37	No	No	Group	13	0
Gilliam et al. [6]	35	Yes	Yes	Group	17.6	0
Muroff et al. [7]	32	Yes	Yes	Group	16.6	2
Muroff et al. [8]	14	Yes	Yes	Group	20	4
Muroff et al. [8]	11	Yes	Yes	Group	20	8
Steketee et al. [5]	41	Yes	Yes	Individual	26	6.5
Turner et al. [13]	6	No	Yes	Individual	35.3	33.3

GCBT, group cogoral therapy; GCBT + HA, group cognitial home assistance; N/

Tolin et al, 2007; Steketee et al, 2010;
 Gilliam et al, 2011, Muroff et al, 2009;
 Muroff et al, 2012; Ayers et al, 2011;
 Turner et al, 2010; Frost et al, 2012a,b,c





CBT for Hoarding

Must target

1. Acquiring
2. Discarding
3. Clutter

Core components:

- Psychoeducation
- Skills Training
 - Organizing
 - Problem Solving/Decision-making
- Behavioural exposures
 - Discarding
 - Non-acquiring
- Cognitive strategies

Steketee & Frost, 2007; Muroff et al, 2009



Sunnybrook

FREDERICK W. THOMPSON
ANXIETY DISORDERS CENTRE



Enhancing Motivation

- Pros/Cons analysis
- Motivational Interviewing

Thinking about Change



Use this handout to help decide if this is the right time (or not) to address your clutter. Consider the options and weigh the pros and cons.
For use by: Helpers, Therapists

Pros and Cons - List the pros and cons of not changing anything about your home or clutter habits:

Pros	Cons
<i>Example: "I do not have to face the thought of discarding anything..."</i>	<i>Example: "I'm not comfortable inviting people over..."</i>

Benefits and Costs - List the benefits and costs of making a change to address the clutter:

Benefits	Costs
<i>Example: "I can try something new..."</i>	<i>Example: "This will take a lot of time..."</i>

Strengths - List the strengths in yourself and the situation that would help you make a change:

Strengths in Myself	Strengths in the Situation
<i>Example: "I have a sense of humour..."</i>	<i>Example: "There are large recycling bins downstairs..."</i>



Treatment rules

- Therapist does not touch possessions without permission
- All decisions made by the client
- Only Handle It Once
- Categories established first
- Help client establish own rules for saving and discarding
- Clients must think aloud while sorting possessions
- Treatment proceeds systematically
- **In = Out**
 - Tackle excessive acquiring early!





Have you sought psychiatric help for hoarding dogs?

Hoarding psychiatrists got too expensive.

Wilcox



Skills Training



Organization: Categorization and sorting

- Categorize unwanted items
 - Trash, recycle donate, sell, undecided
 - Develop list of items to be removed
 - Develop action plan for removing items
- Define categories for saved objects
 - Keep similar items together
 - Choose limited number of locations for each category
 - Help client select final locations for categories of items



Personal Organizing Plan

Target Area:

Item Category	Final Location



Questions for Sorting

- Have you used this in the last year?
 - Avoid keeping things you *might* use
- Do you really need this?
 - If you get rid of it, what's the worst that would happen?
 - Could you get/borrow it elsewhere if needed?
- How many of these do you already have?
 - i.e. Light casual black sweaters, heavy casual black sweaters, light dressy black sweater...
- Does this fit with your vision, your values, or your key needs?
 - Would letting go of this help with your clutter problem?



Behavioural Exposures



Discarding Hierarchy

Item	SUDS
Textbooks	85
Book (general reading)	80
Clothing	75
Purses	65
Recent newspapers	50
Recent flyers	35
Old newspapers (5+ years)	25
Old flyers (5 + years)	10



Acquiring Hierarchy

Item	SUDS
Walking out without the object	85
Walking away from item	80
Putting object back	75
Touching object you want	65
Seeing something you want	50
Walking into store	35
Standing outside store	25
Driving past a store	10

SUDS = Subjective Units of Distress Scale



Personal Rules for Acquiring

- I must have
 - An immediate use for it
 - Time to deal with it appropriately
 - Money to afford it comfortably
 - Space to put it

Steketee & Frost, 2007



Cognitive Strategies

Changing Attachments to Possessions



Beliefs

- Fears of mistakes/decisions
- Responsibility (guilt) for objects & people
- Opportunity
- Memory
- Identity
- Unique/one of a kind
- Completeness
- Control





Cognitive Restructuring: Thought Record

Situation	Moods	Automatic Thoughts	Evidence for Hot Thought	Evidence vs. Hot Thought	Alternative /Balanced Thoughts	Rate Mood Now
Throwing out a newspaper	Anxiety (70%) Sadness (50%)	If I throw this out I won't know this information I won't know what's going on in the world If I don't know everything in the news then others will think I am a stupid person				

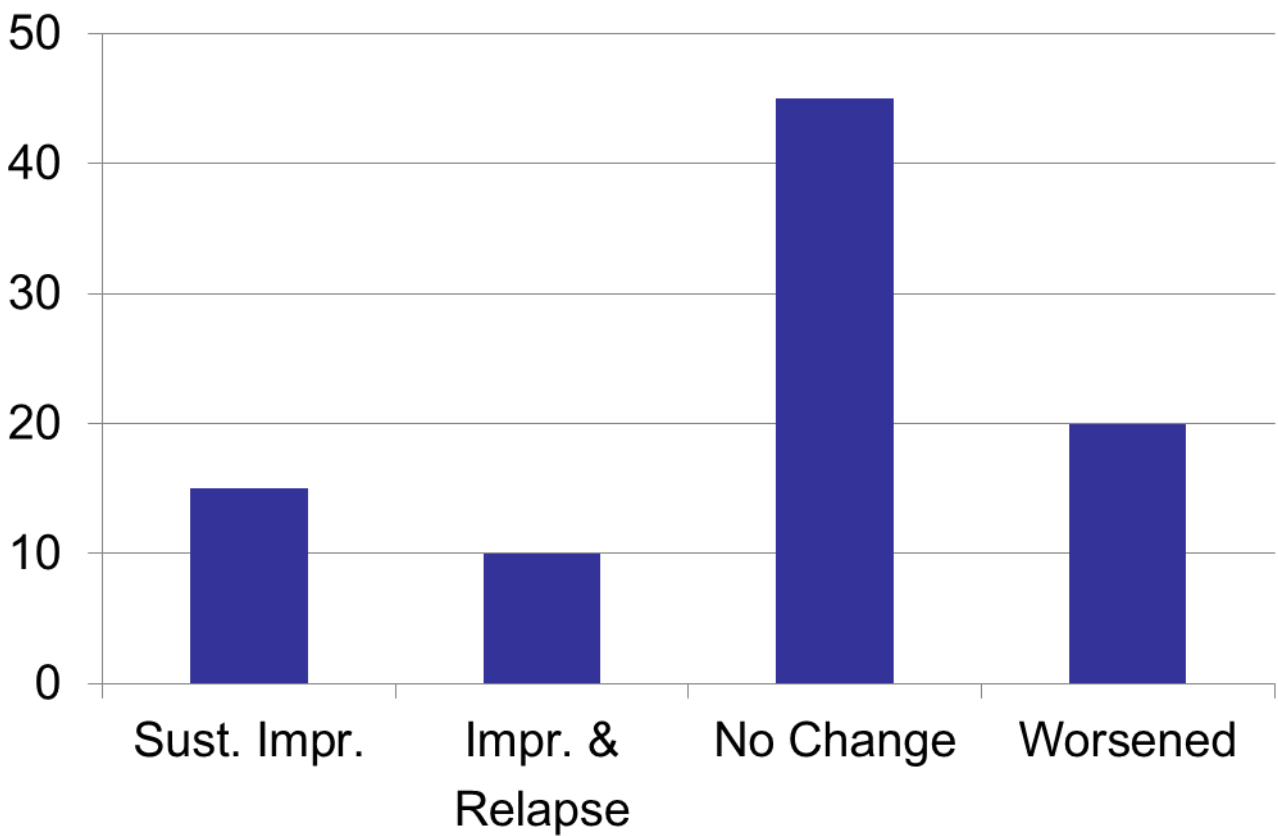


When Hoarding Compromises Safety....

- Forced “clean out” is the last resort
 - i.e. when poses fire/health hazard (vermin, rodents, toxins, or risk of falls)
 - POOR outcome long-term
- Consider risk management approach if possible
 - Slow gradual steps to establish trust, working relationship
 - Gradual reduction of risk



Cleanouts



Steketee et al., Health Soc Wk, 2001; 26; 176-184



Hoarding Disorder - Summary

- Hoarding is common, chronic, and associated with very significant risk to hoarders and those around them
- Outcome with conventional OCD treatment (medication or CBT) is poor
- Group CBT protocols developed for hoarding result in
 - >70% improved/much improved
 - 30% remission rate
 - >25% reduction in severity



Hoarding Disorder - Summary

- Specialized CBT is an effective treatment, while forced clean-outs are considered a last resort
- CBT should address
 - Discarding
 - Acquiring
 - Skills Training (organization, problem solving)

An Examination of Physical Exercises in OCD: Treatment Efficacy, Additive Benefits to CBT and Cognitive Correlates of Change

Hospital > Department of Psychiatry & Behavioral Science > General Division > Frederick W. Thompson Anxiety Disorders Centre

Share: Facebook Twitter Email Print

Frederick W. Thompson Anxiety Disorders Centre

Mission
Founded through the generous donation by Mr. Thompson, the Frederick W. Thompson Anxiety Disorders Centre is dedicated to the treatment and research of anxiety disorders, including obsessive-compulsive disorder (OCD) and related disorders.

What is OCD?
Obsessive-compulsive disorder (OCD) is a chronic mental health condition characterized by intrusive thoughts (obsessions) and repetitive behaviors (compulsions). It can significantly impact quality of life.

Who We Treat
Our research and clinical programs are designed to help individuals with OCD and related conditions.

Our Research
Educational Programs
Training Opportunities
Patient Resources
Frequently Asked Questions
Referrals
Contact Us
How You Can Help

Neuropsychiatry
SunPACT

Frederick W. Thompson Anxiety Disorders Centre
Cognitive Behavioural Therapy (CBT) is a proven effective treatment in the symptoms of OCD. Additionally, emerging evidence for the role of exercise in treating anxiety and depression suggests that regular aerobic exercise may also relieve some symptoms of the disorder. OCD has been shown to be associated with a number of cognitive vulnerabilities, although there has been less research on whether or not current treatments impact on these underlying cognitive vulnerabilities. If CBT, exercise and a combination of the two can lead to improvement in the cognitive vulnerabilities as the associated cognitive vulnerabilities help to show that non-medication is a viable treatment option.

contact [bethany.lerman](#)



Join our Thompson Centre email list

[Subscribe](#)

Art therapy

Learn more about art therapy at the Frederick W. Thompson Anxiety Disorders Centre »

Research projects

Interested in CBT for OCD? Learn about an upcoming treatment & research opportunity »

Peer support
now available
in Toronto....



Mood Disorders Association of Ontario

Drop In
Program

Clearing The Clutter



Artist: www.jamesgulliverhancock.com

A free peer support group
for people living with hoarding
tendencies. No registration required.

Meetings: 1st, 3rd & 4th Thursdays of each
month from 7:00-9:00pm

36 Eglinton Ave. W., Suite 602, Toronto

If you have any questions please call 416-486-8046

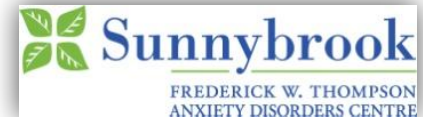
For the current monthly calendar, please visit
www.mooddisorders.on.ca



On-line resources.net

Hoarding Disorder

- www.hoarding.iocdf.org (Hoarding: International Obsessive Compulsive Foundation)
- www.sunnybrook.ca/thompsoncentre (Frederick W. Thompson Anxiety Disorders Centre)
- www.childrenofhoarders.com
- www.vha.ca/thssn (Toronto Hoarding Support Services Network at VHA)



Self Help Books for Hoarding & OCD

Buried in Treasures: Help for Compulsive Acquiring, Saving, and Hoarding. Tolin, Frost & Steketee (2007)(2013)

Compulsive Hoarding and Acquiring (client and therapist workbooks)
Steketee & Frost, Oxford University Press, 2007

Treatment for Hoarding Disorder

Steketee & Frost, Oxford University Press, 2013

Overcoming Compulsive Hoarding

Neziroglu, Bublick & Yaryura-Tobias, New Harbinger Press, 2004

Stuff: Compulsive Hoarding and the Meaning of Things

Steketee & Frost, 2011

Digging Out

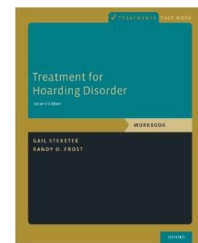
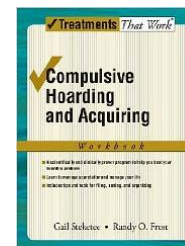
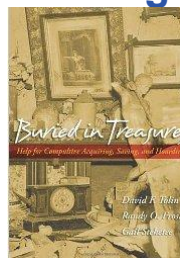
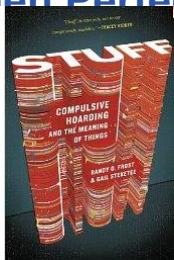
Tompkins, Hartl, Frost & Steketee, 2009

Getting Over OCD: A 10-Step Workbook for Taking Back Your Life. Abramowitz (2009)

The OCD Workbook: Your Guide to Breaking Free From OCD. Hyman & Pedrick (1999)

Overcoming Obsessive Thoughts: How to Gain Control of Your OCD. Purdon & Clark (2005)

When Perfect Isn't Good Enough. Antony & Swinson (2009)





Hoarding 101

- For handouts, questions, inquiries:

ThompsonCentreEducation@sunnybrook.ca

(Please put Hoarding 101 in subject line)



Thank you!

