

# Hoarding among Jewish Holocaust Survivors: Moving Toward a Theoretical Model

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**ABSTRACT:** **Background:** Previously described as a subcategory of obsessive compulsive disorder (OCD), hoarding disorder was added to the fifth Diagnostic and Statistical Manual of Mental Disorders (DSM-V) as a stand-alone diagnosis for the first time. The first formal research in the 1990s surprisingly found no connection between material deprivation early in life and hoarding; however, later studies linked early traumatic life experiences with hoarding. Subsequent familial studies demonstrated a genetic predisposition for hoarding. Emerging evidence suggests a link between a post-traumatic stress disorder (PTSD) and hoarding in Jewish Holocaust survivors.

**Objectives:** To evaluate the literature on PTSD among Jewish Holocaust survivors for associations between PTSD and hoarding.

**Methods:** A systematic search of selected databases, including PubMed, Google Scholar, NCBI, Psych Info, and EBSCO Host was conducted from 1 March 2017 to 15 July 2018 using the following search terms: hoarding, hoarding disorder, obsessive compulsive disorder, OCD, compulsive hoarding, Jewish Holocaust survivors, Shoa, post-traumatic stress disorder, and PTSD. Inclusion criteria included peer reviewed research published on adults in English since 1990. Because no publications linking hoarding and PTSD in Jewish Holocaust survivors were found, references in retained papers were also searched for any relevant published work.

**Results:** Seven articles linking PTSD and hoarding were identified for this review. However, no articles were found linking PTSD and hoarding in Jewish Holocaust survivors.

**Conclusions:** A relationship between PTSD and hoarding in Jewish Holocaust survivors is conceivable and should be explored to effectively diagnose and care for affected individuals.

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**KEY WORDS:** hoarding disorder, Holocaust, obsessive compulsive disorder (OCD), post-traumatic stress disorder (PTSD)

with possessions, regardless of their actual value.” [1] Affected individuals perceive a need to save items and are distressed at the thought of discarding them. Without intervention from families or third parties, hoarding creates an unhealthy living environment driving the affected person into further social and occupational isolation. The volume of hoarded items sets them apart from others. People who collect stamps or coins deliberately seek out objects and organize them. Conversely, people with hoarding disorder commonly hoard random items such as newspapers, magazines, paper and plastic bags, cardboard boxes, photographs, household supplies, food, clothing, toys, and even animals. Hoarders see potential need for these items or attach sentimental value to items they believe are unique and irreplaceable. They may believe their inventory was obtained at a great bargain and too valuable to discard. They may attach emotional value to items that remind them of events or people they do not want to forget. Finally, affected individuals become overwhelmed by their inability to organize their trappings so keeping them is easier than sorting and discarding. Hoarding ranges from mild to severe. In the latter case, affected individuals may experience emotional, physical, social, financial, and even legal consequences, such as eviction from their homes. Interest in diagnosis and treatment of hoarding began in the 1990s and has steadily increased since that time, including demonstrations of heritability [2].

Similarly, PTSD diagnosis and treatment are relative newcomers to psychotherapy. The DSM-V criteria for a diagnosis of PTSD includes a direct or indirect exposure to major trauma (e.g., death or near-death, significant trauma, threatened or actual sexual violence). The exposure is persistently re-experienced through memories, nightmares, and flashbacks. Additional descriptors include difficulty sleeping, hypervigilance, risky behavior, negative feelings, and social and functional impairment [3]. PTSD was not widely investigated until the 1970s and few people received targeted treatment until the 1980s [4]. For that reason, many affected individuals coped with their symptoms instead of receiving treatment. This situation was particularly true for Jewish Holocaust survivors who had no time to mourn, adjust, or even think about the trauma they

According to the fifth Diagnostic and Statistical Manual of Mental Disorders (DSM-V) diagnostic criteria, hoarding disorder is defined as, “persistent difficulty discarding or parting

endured. They were forced to move forward. Many busied themselves with work and family responsibilities, trying to make their lives have meaning out of a sense of obligation to those who did not survive [3]. Consequently, there is rationale to connect PTSD and hoarding in Jewish Holocaust survivors. The purpose of our research was to evaluate the potential associations of PTSD and hoarding among Jewish Holocaust survivors.

**PATIENTS AND METHODS**

A systematic search of the literature was conducted from 1 March 2017 to 15 July 2018, using PubMed, Google Scholar, NCBI, Psych Info, and EBSCO Host search engines. The following search terms were used: hoarding, hoarding disorder, obsessive compulsive disorder, OCD, compulsive hoarding, Jewish Holocaust survivors, Shoa, post-traumatic stress disorder, and PTSD. Inclusion criteria were peer-reviewed research of adults published after 1990 and written in the English language.

Exclusion criteria included pediatric research, case-studies, and articles published before 1990. Due to the scant literature linking hoarding, PTSD, and Jewish Holocaust survivors, references mentioned in the retained papers were manually searched for additional published work. Those papers deemed most relevant to potential connections were retained for this article. In addition, the number of scientific publications in a specific year (1990–2018), using the keywords Holocaust and hoarding as well as the combination of both terms, were conducted. All data were derived from the PubMed database.

**RESULTS**

Seven research articles combining PTSD and hoarding were identified according to our research criteria. However, when the search was modified to link together Jewish Holocaust Survivors, PTSD, and hoarding, no published papers were found. Results of the number of scientific publications from 1990 to 2018 are presented in Figure 1.

**DISCUSSION**

**PTSD AND HOARDING**

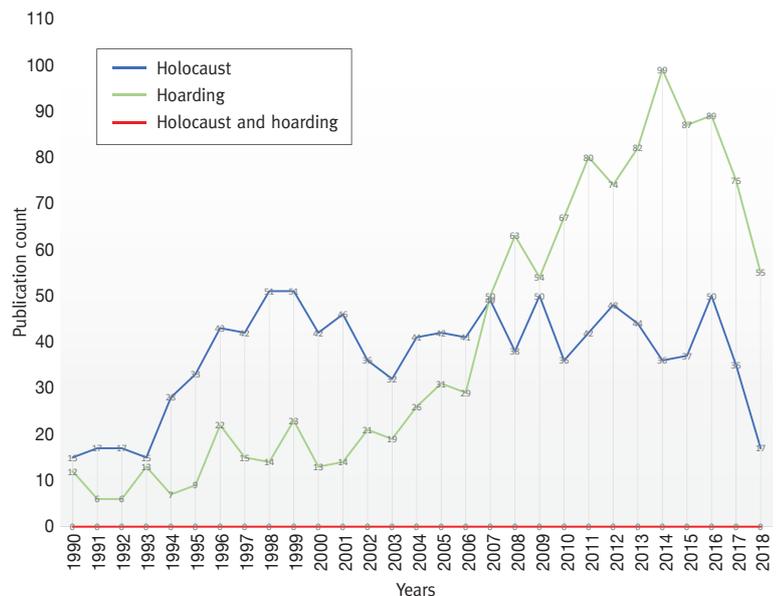
Over the last decade, several researchers have demonstrated links between traumatic events and hoarding behavior, suggesting that the former may cause the latter. Tolin and colleagues [5] conducted an online survey of 751 participants with self-reported hoarding symptoms. The goal of their research was to investigate the severity of hoarding symptoms and relate onset of those symptoms to traumatic events. The survey clearly demonstrated traumatic events experienced early in life can cause hoarding later in life. Furthermore, the more intense the trauma, the more severe the hoarding behaviors. Landau and co-authors [6] made similar observations in personal interviews of indi-

viduals who were divided into four categories: participants diagnosed with both OCD and hoarding, OCD only, hoarding only, and a control group without pathological diagnoses of any of the three disorders. Individuals with hoarding reported significantly higher numbers of stressful and harmful events early in life prior to diagnosis compared to the groups without hoarding. Furthermore, controlling for age, gender, education level, depression, and OCD symptoms did not impact results.

Neziroglu and colleagues [7] compared distress reactions and behavioral dysfunction activities via responses to a questionnaire among 148 participants, who were divided into three research groups: participants with OCD without hoarding, participants with hoarding only, and participants with OCD and hoarding. Researchers observed that hoarders demonstrated behavioral difficulties rather than emotional stress or depression. Gordon and co-authors [8] evaluated beliefs associated with possessions among individuals with OCD and hoarding compared to participants who hoard without an OCD diagnosis. Consistent with the previously cited articles, Gordon’s team found those with OCD and hoarding experienced significantly greater personal distress and emotional harm than did those with hoarding but without OCD.

Focusing on traumatic events related to hoarding, Przeworski et al. [9] examined and compared the number and type of traumatic events among individuals with OCD symptoms, hoarding symptoms, or both. They found those diagnosed with hoarding experienced significantly greater traumatic events prior to diag-

**Figure 1.** Number of scientific publications on hoarding and Holocaust survivors: 1990–2018



The following databases were searched: PubMed, Google Scholar, NCBI, Psych Info, and EBSCO Host Search terms used: hoarding, hoarding disorder, obsessive compulsive disorder, OCD, compulsive hoarding, Jewish Holocaust survivors, Shoa, post-traumatic stress disorder, and PTSD

nosis, including more instances of physical assault. The authors highlighted an important association between hoarding and certain traumatic events prior to symptom onset [9].

#### PTSD AMONG JEWISH HOLOCAUST SURVIVORS

In the initial years following the end of World War II, Jewish Holocaust survivors were not assessed or treated for PTSD for several reasons. First, these individuals experienced PTSD during a time in history when the disorder was not codified into a distinct diagnosis with a treatment strategy. When presenting with symptoms, affected individuals did not get the proper treatment [3,4]. Second, many survivors did not want to talk about their experiences and the world did not want to listen – a phenomenon termed: a collusion of silence [4]. However, research published in the 1970s [10] identified PTSD among Holocaust survivors, despite the fact that most had achieved productive lives.

Furthermore, as Jewish Holocaust survivors age, their psychopathological symptoms exceed those of PTSD and some suggest that the latter diagnosis is insufficient to provide a basis for treatment [4]. For years, these untreated individuals coped with PTSD symptoms by engaging in occupational and family responsibilities. Most were disconnected from their families of origin and developed strong social circles with other survivors [3]. However, with aging, individuals retired from their professions, children became independent adults, and social circles contracted as friends died [11]. As Holocaust survivors age, largely untreated PTSD symptoms, which are unique, require adjustments in diagnosis and treatment approach [11].

#### HOARDING AMONG JEWISH HOLOCAUST SURVIVORS

We did not find any articles in the literature that directly assessed PTSD among Jewish Holocaust survivors, although hoarding and PTSD were found to be correlated [12]. However, emerging anecdotal reports and related literature suggest a connection in this population.

In a review of literature on hoarding in elderly populations, Roane and co-authors [13] concluded that hoarding onset begins around 40 years of age, increases in severity after middle age, and is correlated with social isolation, co-morbid anxiety, and depression. Furthermore, Cath and colleagues [14] found that hoarding prevalence and severity increases by 20% with every 5 years of life. Hoarding incidence is estimated at 2–4% of the general population, but as high as 6% in people over 55 years of age [15].

Scientists have linked genetic heritability of PTSD [16] and hoarding [17-19]. Similar to PTSD, hoarding may not be diagnosed for years (up to a decade) after onset of symptoms. This complicates efforts to characterize and treat the problem. Furthermore, hoarding in the elderly is characterized as a form of elder neglect or abuse and speaks to the severe impairment hoarding places on this vulnerable population [14].

#### HOLOCAUST AND HOARDING PARADIGM

The scientific literature was searched using the terms Holocaust, hoarding, and Holocaust and hoarding, with a specific interest in the number of publications, by year, from 1990 to 2018. The number of publications on hoarding increased in 2006 and again in 2013 when hoarding was added as a standalone disorder rather than a subcomponent of other diagnoses, such as OCD [Figure 1]. Although PTSD and hoarding associations are documented in published work [12], and PTSD has been investigated in Jewish Holocaust survivors, no publications were found linking hoarding and Jewish Holocaust survivors. Because of the established correlations between PTSD and hoarding, as well as PTSD and the Holocaust, we propose a paradigm linking the Jewish Holocaust survivor population with hoarding [Figure 2]. As this paradigm is highly plausible, it should be investigated.

**Figure 2.** Holocaust and hoarding paradigm

Illustration of the novel paradigm linking the Jewish Holocaust survivor population with hoarding, as proposed by the authors



PTSD = post-traumatic stress disorder

#### CONCLUSIONS

Holocaust survivors may present with unique PTSD and hoarding symptoms owing to the horrors they endured. Unfortunately, man's inhumanity to man will continue and future survivors of those atrocities will need caregivers who fully understand their unique needs and treatments.

Heritable possibility should be further examined for Holocaust survivors and their progeny to allow further understanding of implications over the next generations

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#### References

1. Hoarding disorder. Anxiety and Depression Association of America, ADAA online site. [Available at <https://www.adaa.org/>]. [Accessed 13 June 2018].

2. Grisham JR, Norberg MM. Compulsive hoarding: current controversies and new directions. *Dialogues in Clin Neurosci* 2010; 12 (2): 233-40.
3. Kellermann NPF. The long-term psychological effects and treatment of Holocaust trauma. *J Loss Trauma* 2001; 6 (3): 197-218.
4. Prot-Klinger K. Research on consequences of the Holocaust. *Archives of Psychiatry and Psychotherapy* 2010; 2: 61-9.
5. Tolin DF, Meunier SA, Frost RO, Steketee G. Depress anxiety course of compulsive hoarding and its relationship to life events. *Depress Anxiety* 2010; 27 (9): 829-38.
6. Landau D, Iervolino A, Pertusaa A, Santa S, Satwant S, Mataix-Colsa D. Stressful life events and material deprivation in hoarding disorder. *J Anxiety Disorders* 2011; 25 (2): 192-202.
7. Neziroglu F, Weissman S, Allen J, McKay D. Compulsive hoarders: how do they differ from individuals with obsessive compulsive disorder? *Psychiatry Res* 2012; 200 (1): 35-4.
8. Gordon OM, Salkovskis PM, Oldfield VB. Beliefs and experiences in hoarding. *J Anxiety Disorders* 2013; 27 (3): 328-39.
9. Przeworski A, Cain N, Dunbecka K. Traumatic life events in individuals with hoarding symptoms, obsessive-compulsive symptoms, and comorbid obsessive-compulsive and hoarding symptoms. *Obsessive Compuls Relat Disord* 2014; 3 (1): 52-8.
10. Eitinger L, Stroem A. Mortality and morbidity after excessive stress. Oslo Universitetsforlaget, New York, Humanity Press, 1973.
11. Bandler, Sondra. Practice issues: understanding aged Holocaust survivors. *Families in Society* 2000; 81 (1): 66-75
12. Cromer KR, Schmidt NB, Murphy DL. Do traumatic events influence the clinical expression of compulsive hoarding? *Behav Res Ther* 2007; 45 (11): 2581-92.
13. Roane DM, Landers A, Sherratt J, Wilson GS. Hoarding in the elderly: a critical review of the recent literature. *Int Psychogeriatr* 2017; 29 (7), 1077-84.
14. Cath DC, Nizar K, Boomsma D, Mathews CA. Age-specific prevalence of hoarding and obsessive compulsive disorder: a population-based study. *Am J Geriatr Psychiatry* 2017; 25 (3): 245-55.
15. Steketee G, Frost R. Compulsive hoarding: current status of the research. *Clin Psychol Rev* 2003; 23: 905-27.
16. Yehuda R, Bell A, Bierer LM, Schmeidler J. Maternal, not paternal PTSD, is related to increased risk for PTSD in offspring of Holocaust survivors. *J Psychiatr Res* 2008; 42 (13): 1104-11.
17. Nordsletten AE, Monzani B, Fernández de la Cruz L, et al. Overlap and specificity of genetic and environmental influences on excessive acquisition and difficulties discarding possessions: implications for hoarding disorder. *Am J Med Genet B Neuropsychiatr Genet* 2013; 162B (4): 380-7.
18. Ivanov VZ, Mataix-Cols D, Serlachius E, et al. Prevalence, comorbidity and heritability of hoarding symptoms in adolescence: a population based twin study in 15-year olds. *PLoS ONE* 2013; 8 (7): e69140.
19. Ivanov VZ, Nordsletten A, Mataix-Cols D, et al. Heritability of hoarding symptoms across adolescence and young adulthood: a longitudinal twin study. *PLoS One* 2017; 12 (6): e0179541.

**Capsule**

**The benefits of a missing appendix**

Misfolded  $\alpha$ -synuclein is a pathological hallmark of Parkinson's disease (PD). Killinger and co-authors reported that the human appendix contains an abundance of misfolded  $\alpha$ -synuclein and that removal of the appendix decreases the risk of developing PD. The appendixes of both individuals with PD and healthy individuals contained abnormally cleaved and aggregated forms of  $\alpha$ -synuclein, analogous to those found

in postmortem brain tissue from PD patients. Furthermore,  $\alpha$ -synuclein derived from the appendix seeded rapid aggregation of recombinant  $\alpha$ -synuclein in vitro. In two large-scale epidemiological studies, an appendectomy occurring decades before reduced the risk of developing PD.

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Eitan Israeli

**Capsule**

**Targeted neurotechnology restores walking in humans with spinal cord injury**

Spinal cord injury leads to severe locomotor deficits or even complete leg paralysis. Wagner and colleagues introduced targeted spinal cord stimulation neurotechnologies that enabled voluntary control of walking in individuals who had sustained a spinal cord injury more than 4 years before and presented with permanent motor deficits or complete paralysis despite extensive rehabilitation. Using an implanted pulse generator with real-time triggering capabilities, the authors delivered trains of spatially selective stimulation to the lumbosacral spinal cord with timing that coincided with the intended movement. Within 1 week, this spatiotemporal

stimulation had re-established adaptive control of paralyzed muscles during over ground walking. Locomotor performance improved during rehabilitation. After a few months, participants regained voluntary control over previously paralyzed muscles without stimulation and could walk or cycle in ecological settings during spatiotemporal stimulation. These results establish a technological framework for improving neurological recovery and supporting the activities of daily living after spinal cord injury.

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Eitan Israeli

**“There may be times when we are powerless to prevent injustice, but there must never be a time when we fail to protest”**

Elie Wiesel (1928–2016), Romanian-born American Jewish writer, professor, political activist, Nobel Laureate and Holocaust survivor