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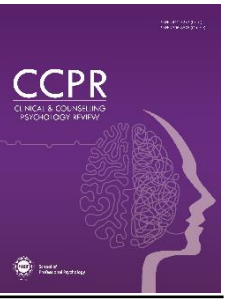

Title:	**Personality Types and Beliefs in Hoarding Disorder: A Cross-Sectional Study**
Author (s):	Aasma Yousaf, Rukhsana Kausar, and Iram Fatima
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Personality Types and Beliefs in Hoarding Disorder: A Cross Sectional Study

Aasma Yousaf* Rukhsana Kausar, and Iram Fatima

Institute of Applied Psychology, University of the Punjab, Lahore, Pakistan

Abstract

Hoarding is a prevalent psychological condition, with evidence suggesting that approximately 2-6% of the global adult population is affected. The objective of this study was to differentiate these individuals into three groups: hoarding disorder (HD), obsessive-compulsive disorder (OCD), and non-clinical in terms of personality and beliefs behind hoarding behaviors. The study was cross-sectional in nature with a matched group research design. Sample size (*N*=303) was determined through G*Power analysis, collected through a purposive sampling strategy, following a specific inclusion criteria. Participants in three groups were matched on age and education. Participants with OCD were recruited from psychiatric units, whereas people with HD and those falling in the third category were recruited from the general population in the same vicinity. Standardized measures were administered to screen out HD and OCD, personality types and beliefs, as well as other mental health conditions, which were part of the exclusion criteria. ANOVA and Post Hoc analysis revealed a significant difference in the beliefs of emotional attachment with possession, control over saved items, and responsibility towards their cluttered material, as compared to normal and OCD participants. Neuroticism was highly reported by the individuals with HD. Individuals with HD were reported to be less conscientious, open to experience, and agreeable, as compare to those with OCD and normal control. Rigid beliefs related to collecting/saving and neurotic personality traits are significant factors in hoarding behaviors, including acquiring, saving, and difficulty with recycling, discarding, and disorganizing collected material.

Keywords: hoarding behaviors, obsessive compulsive disorder, personality

Introduction

Saving, collecting, and acquiring (hoarding) ensure human survival when

*Corresponding Author: psychologist.yousaf@gmail.com

resources are limited. This is why accumulating material is sometimes considered a habitual behaviour for survival needs (Lee & Park, 2025). The habit of hoarding dates back to childhood, as Freud (1908) explained in his theory of development, asserting that hoarding behaviors are fixated in the anal stage of a child's development and worsen in adult life (Tarzian et al., 2023). Recently, the consistent pattern of hoarding behaviors has been classified in the Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5-TR) as a hoarding disorder (HD). The HD is defined as the mental condition of excessive collecting of materials, difficulty in discarding any possessions, and cluttering due to excessive saving (American Psychiatric Association [APA], 2022).

Existing research reported a 2-6% prevalence of HD, and more common in women and grows common and intense with increasing age (Postlethwaite et al., 2019). Recent research reported the ratio of lifetime prevalence and 12- months prevalence of HD among the Asian population to be 2% and 8% in clinical samples (Zaboski et al., 2019). This disorder has created many devastating psychosocial and health-related concerns for the individual him/herself as well as their family and surroundings, leading to family conflicts, health problems, isolation, loneliness, and inability to perform routine goals (Morein-Zamir & Ahluwalia, 2023; Ricci et al., 2023). Theorists believe that several risk factors contribute to HD, such as a family history of HD, stressful life incidents, personality traits, home environment, and the individual's belief system (Bratiotis & Woody, 2020). Personality dimensions have always remained the focus of attention in psychology literature with reference to their strong contribution to any psychopathology, including HD.

Researchers have identified that one of the factors of HD is high neuroticism and low conscientiousness among individuals with compulsive hoarding (Dozier & DeShong, 2022). Recent studies reported a strong association between schizotypal personality traits and hoarding behaviors (Weintraub et al., 2018) and dependent, schizoid, and avoidant personality with HD (Dozier et al., 2020; Mueller, 2025). Another study reported that avoidant personality style explains significant variance in HD (Piroozian et al., 2025). Cognitive theorists explained that cognitions/beliefs are also significant areas to be addressed for any psychopathology; belief systems play an important role in the diagnosis of HD (Dozier & DeShong, 2022).

People with HD do not discard or lose their possessions because they

believe that their saved material might not be available again, and they have a stronger emotional attachment to those particular objects than other normal individuals. Moreover, individuals with hoarding behaviors believe that it is their responsibility to save any item because in time of need they will be responsible for providing that particular item (Ragan et al., 2026; Tinlin et al., 2022). The most important thing for theorists was to identify the beliefs related to hoarding behaviors as predicting variables for HD. Till now, epidemiological researches are seen frequently loaded with issues in methodology, specifically in identifying cases of HD. It is reported that HD may manifest in different societies as per their norms and standards, and so is the case with its management. But awareness of the disorder is an important issue, which is one of the aims of the current study. Moreover, many researchers have emphasized the role of cultural factors.

For instance, evidence suggest that clinically significant hoarding is common in East Asia. Clinical manifestation of the HD is also identified in the West. (Chasson et al., 2013). Nonetheless, few differences between Eastern and Western cultures are noted. Tang and colleagues identified the factor structure of the Chinese version of SI-R. They ended up with two factors, 'acquisition/difficulty discarding' and 'clutter', whereas with a sample in the West, there are three factors ('acquisition,' 'difficulty discarding,' and 'clutter'). The similar findings may hold for Pakistan, where the majority of the sample tends to collect or save to meet future needs (Tang et al., 2012). Also, in certain Asian cultures, there is this superstitious belief that hoarding or saving certain items brings good luck. Moreover, the trend of collecting/ acquiring/saving (hoarding) in Pakistan and India seems more common due to gift-exchanging trends as a part of socialization, cultural norms, and the dowry system (Sharma et al., 2013). Dowry culture is contrary to Islamic values (Al Quran, 70: 15-18).

In the Islamic religion, hoarding is also allowed when prices are low, and people may acquire or purchase items for their use but not for a longer duration (Al-Islam, n.d.). Thus, certain Asian cultures may have a distinct perspective on hoarding. It would have serious implications for the domain of public health as people may be less likely to interpret this as clinically significant and resultantly, delay help-seeking. Findings of a study conducted in Pakistan explored the role of emotional connection, personality types, and childhood experiences in developing HD. This research explains how material possessions may be treated as a source of

security and status symbols to the hoarder in society (Malik & Kamal, 2020). Besides this, in Pakistan, in recent years, economic instability, sudden lockdowns, political setbacks, and pandemics have increased uncertainty, leading to an increase in the rate of stockpiling and hoarding. Acknowledging the gaps in the previous research, a close attention is required to differentiate between the general saving trends and pathological saving, which is clinically significant. This was impossible without studying personality traits and beliefs related to hoarding behaviors which compel individuals to save. Personality and thinking patterns are the core factors that contribute to any behavior. Much literature is available on hoarding and its nature, prevalence, and correlates, but personality and beliefs still need attention to be studied. That is why, by keeping in view the ever-increasing trend of acquiring, shopping, collecting, buying, saving, and being possessive about such material, the current study was planned. Few studies have been conducted focusing on developing countries so far on HD and its correlates. The first aim of the current study is to examine the personality traits and beliefs in individuals with HD, OCD, and a community sample (non-clinical), and secondly to differentiate these patterns among three groups. It was hypothesized that participants with HD are likely to have neuroticism and strong cognitions of emotional attachment, control, memory, and responsibility as compared to OCD and normal control individuals.

Method

Research Design

This was a cross-sectional study with match group design. Three groups were compared simultaneously on hoarding behaviors.

Sample and Sample Characteristics

Sample (N=303) was determined through G*Power analysis with a medium effect size. A matched group was planned for which data were collected from men and women: Hoarding (n=101) who were recruited through two-stage sampling, as initially they were screened for HD and at the second step were entered in the main study after the confirmation of their disorder. High scoring participants on the hoarding rating scale were included in the hoarding group, whereas low scorers on the hoarding rating scale were included in the Non-Clinical (n=101) group. Participants with OCD (n=101) were recruited from psychiatric settings in Govt. hospitals.

Participants in all three groups were between the age range of 18-50 years. Participants of these 3 groups were selected according to the following inclusion criteria for each group: Group 1(a) participants of HD were recruited from the community (b) diagnosis was confirmed through scores (41 or more) on Saving Inventory -Revised (SI-R; Frost et al., 2004) (c) less than 21 score on Obsessive Compulsive Inventory-Revised (OCI-R; Foa et al., 2002); Group 2 (a) participants of OCD were recruited from psychiatric settings in Govt. hospitals (b) equal to or more than 21 score on OCI-R (c) less than 41 scores on SI-R; Group 3 (a) non clinical individuals were recruited from community population (b) scored less than 21 on OCI-R (c) scored less than 41 on SI-R. All the participants in the 3 groups were matched on age and education. Exclusion criteria included participants with any other primary psychological diagnosis (schizophrenia, bipolar, depression, etc.) physical condition (arthritis) and physical disability.

Figure 1

Flowchart Showing Recruitment of Study Sample

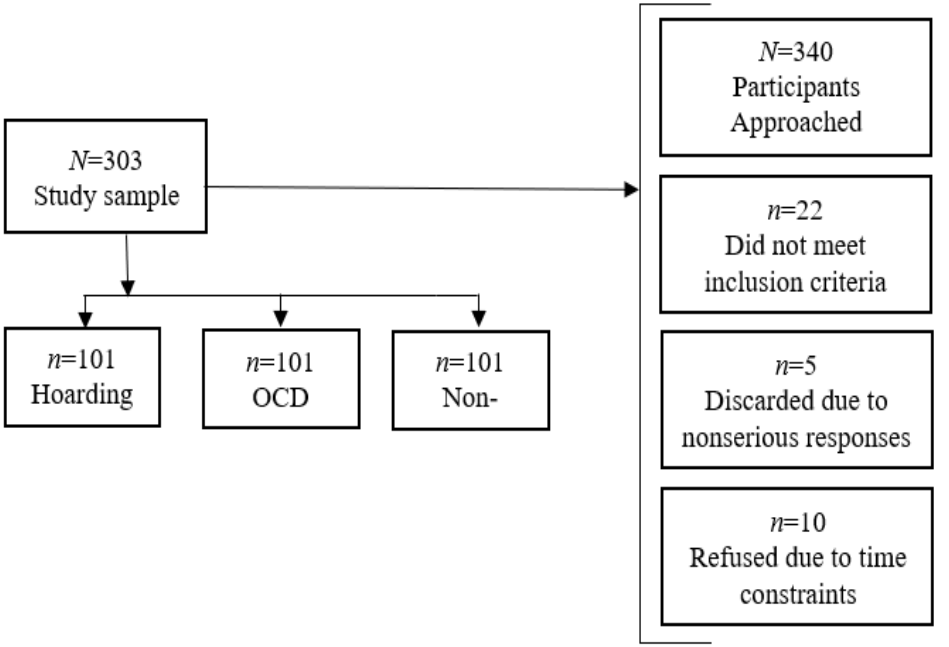

Table 1

Chi–square Test (χ^2) for Comparing Demographic Characteristics of the Participants with Three Groups (N=303)

Demographic Characteristics	Hoarding *(n=101)* *f* (%)	OCD *(n=101)* *f* (%)	Non-Clinical *(n=101)* *f* (%)	(χ^2)	*p*
Gender				2.89	.40
Women	67(66.3)	59(58.4)	70(69.3)		
Men	34(33.7)	42(41.6)	31(30.7)		
Education				21.36	.43
Illiterate-Primary	9(8.9)	7(7.00)	3(3.0)		
Middle-Metric	20(19.8)	18(17.80)	13(12.9)		
Inter-Graduation	29(28.8)	37(36.6)	32(31.7)		
Masters-M.Phill	10(9.9)	39(38.70)	53(52.5)		
Marital status				17.15	.14
Unmarried	58(57.4)	66(65.3)	57(56.6)		
Married	37(36.6)	68(27.7)	44(43.6)		
Divorced	3(3.0)	6(6.00)	-		
Widow	3(3.0)	1(1.00)	-		
Occupation	74(73.20)	52(51.5)	66(65.40)	30.09	.23
Govt. job	36(35.6)	33(32.7)	50(49.5)		
Private job	21(20.8)	11(10.9)	4(4.0)		
Personal business	17(16.8)	8(7.9)	12(11.9)		
Family system				2.20	.53
Nuclear	58(57.2)	58(57.4)	64(63.4)		
Joint	43(42.57)	43(42.6)	37(36.6)		

Table 2

Comparing Participants with Hoarding, OCD, and Non clinical on Demographic Characteristics (N=303)

Variables	Hoarding *(n=101)* *M(SD)*	OCD *(n=101)* *M(SD)*	Non-Clinical *(n=101)* *M(SD)*	*F*	*p*
Age	28.03(7.83)	28.65(7.74)	28.42(8.20)	.35	.78
Ave. working Hours a day	217.80 (376.04)	453.05 (441.47)	339.68(427.97)	5.81	.00
Age	67.82 (216.95)	282.65(407.41)	379.72(435.74)	16.13	.00

Measures

Mental Health Screening Questionnaire (MHSQ; Mirza & Kausar, 2013)

It is an indigenous 5-item checklist used to screen out comorbidity of any other psychological disorder in the research participant other than HD. Participants were required to answer in dichotomous response categories (Yes and No). High internal consistency was reported in an indigenous study (Zafar & Arshad, 2017). In the current study, high internal consistency was calculated as .82.

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

23-item measures were administered after their Urdu translation by the researcher, following MAPI guidelines (MAPI Research Trust, n.d.) to screen for HD. This inventory has three subscales such as acquisition (7 items), cluttering (9 items), and difficulty discarding (7 items). Responses were rated on a 4-point rating scale. Two items, 2 and 4, were reverse-coded. Cut-off score for the inventory was 41. The author reported internal consistency of the SI-R total score as .94. Test-retest reliabilities for the subscales are as follows: Difficulty Discarding = .93; Clutter =.88, Acquisition .80. Internal consistency in the current study is calculated as difficulty discarding (.84), acquisition (.86), and clutter (.88), and .94 for full scale.

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

Urdu translation of OCI-R was administered to the participants to screen out OCD. This is an 18-item self-report measure with seven subscales: Hoarding, Checking, Neutralizing, Obsessing, Ordering, and Washing, with 21 cut off score. Participants were required to respond on a 0–4-point rating scale. The range of scores is between 0 and72. Internal consistency ranged from .82-.89. The possible range of scores is 0-72. For the current study, the alpha coefficient was calculated between the ranges of .66 and.92 for all subscales, and .92 for the full scale. For subscale of checking Alpha coefficient was calculated as (α =.82), for hoarding (α =.87), for neutralizing (α =.88), for obsessing (α =.93), for ordering (α =.86), and for washing (α =.89).

Big Five Inventory-K (BFI-K; Kovaleva et al., 2013)

It was administered to identify personality traits. This is a 21-item scale,

translated into Urdu following MAPI guidelines (MAPI Research Trust, n.d.). It has five subscales: neuroticism (4 items), extroversion (4 items), conscientiousness (6 items), agreeableness (4 items), and openness (3 items). Participants are required to respond on a 5-point rating scale. In an indigenous study by Khalid et al. (2015) internal reliability was reported as .73 for extraversion, .62 for agreeableness, .70 for conscientiousness, .79 for neuroticism and .70 for openness. In the current sample, high alpha reliability has been reported for each of the subscales ranging, from .69 to.80.

Saving Cognitions Inventory (SCI; Steketee et al., 2003)

It was administered after Urdu translation by following MAPI guidelines (MAPI Research Trust, n.d.) to assess the beliefs associated with hoarding. It is a 24-item scale with four subscales: Emotional attachment (10 items), memory (5 items), control (3 items), and responsibility (6 items). Participants are required to respond on a 1-7 Likert scale with a 0-168 score range. Alpha coefficients for 4 the subscales range from .86-.95. For the current study, internal consistency is calculated between the ranges of .77-.95 for subscales and .95 for the full scale.

Demographic information sheet

It was prepared by the researcher to collect information from the participants on their age, gender, marital status, education, occupation, family system, and average working hours at the time when collecting was initiated for the first time.

Procedure

The following procedure was followed for the current study: First of all, written approval was sought from the Institutional Research Committee (Departmental Doctoral Program Committee) and the University Research Review and Approval Committee (Advance Studies Review Board), University of the Punjab, Lahore, Pakistan. Written permission was sought from the original authors and authors of the translated versions of measuring instruments. Before starting data collection, written permission was received from the concerned authorities of the Govt. psychiatric settings.

A pilot study was conducted on 8 participants (2 in each group) by keeping ethical considerations in view in order to find out the understandability and conceptual clarity of the items and the total time taken

to complete all the measures.

The main study was initiated in the light of the results of the pilot study. Initially, a leaflet in Urdu and English was prepared for the general public (with trends of collecting material) for their participation in the study. Many of the participants were approached through posting a leaflet on social media. All the 3 groups (HD, OCD, and non-clinical) were initially screened for inclusion criteria to recruit in the main study. Participants with HD (*n*=101) were recruited from the community population in different cities of Punjab like Lahore, Multan, Bahawalpur, Chichawatni, Kacha Khoo, etc. Participants of OCD (*n*=101) were taken from psychiatric settings of Govt. Hospitals, those who were already diagnosed by psychiatrists. The diagnosis was confirmed by the researcher through DSM-5 criteria and Saving Inventory-Revised. nonclinical (*n*=101) participants were also recruited from the community. Participants from all three groups were recruited from the same vicinity. After confirming predetermined criteria, measuring instruments were administered verbally.

All the ethical considerations were followed such as debriefing, obtaining written permission from data venue, taking written consent from participants for their participation, genuine data collection/recruitment and honest presentation of the findings.

Results

Table 3

Differences on Hoarding Behaviors, Obsessive Compulsive Behaviors and Hoarding Related Beliefs among Participants of the Three Groups (N=303)

Variables	Hoarding *(n=101)*	OCD *(n=101)*	Non clinical *(n=101)*	*F*	*P*
	M(SD)	*M(SD)*	*M(SD)*		
Hoarding Behavior	53.16(9.95)	23.39(8.49)	20.15(9.74)	336.46	<.001
Clutter	18.49(4.85)	7.86(4.83)	7.25(5.16)	173.84	<.001
Difficulty discarding	17.93(3.74)	8.03(3.26)	6.71(3.95)	217.52	<.001
Acquiring	16.74(3.90)	7.50(3.30)	6.19(3.67)	233.94	<.001
OCD	14.75(5.48)	36.09(10.7)	11.16(7.51)	285.57	<.001
Checking	1.28(1.16)	5.94(2.45)	1.76(1.72)	169.99	<.001
Hoarding	5.50(2.28)	4.60(2.21)	1.57(1.59)	78.52	<.001
Neutralizing	1.30(1.31)	5.49(2.36)	1.33(1.69)	166.58	<.001
Obsessing	3.55(2.01)	6.49(3.46)	1.77(1.83)	102.69	<.001

Variables	Hoarding *(n=101)* *M(SD)*	OCD *(n=101)* *M(SD)*	Non clinical *(n=101)* *M(SD)*	*F*	*P*
Ordering	2.50(1.97)	7.45(2.28)	3.45(2.33)	151.49	<.001
Washing	.62(1.57)	6.13(2.86)	1.28(1.73)	172.64	<.001
Personality					
Extroversion	10.31 (3.78)	12.12(3.09)	12.67(2.14)	12.41	<.001
Agreeableness	12.44(2.65)	13.48(3.11)	14.71(2.47)	12.21	<.001
Conscientiousness	12.29(2.88)	14.85(2.70)	14.87(2.57)	20.61	<.001
Neuroticism	19.05(3.04)	18.40(3.41)	16.50(3.47)	17.91	<.001
Openness to experience	8.83(1.16)	9.59(1.36)	9.57(1.70)	6.46	<.001
Hoarding beliefs	87.69(23.09)	66.80(23.07)	48.63(17.97)	72.64	<.001
Emotional attachment	40.49(13.72)	31.99(14.22)	21.68(9.93)	41.53	<.001
Control	14.19(4.67)	11.57(4.89)	8.82(4.53)	27.49	<.001
Responsibility	13.57(3.07)	8.10(2.80)	7.20(3.01)	133.14	<.001
Memory	21.57(6.05)	15.14(6.54)	10.93(4.68)	63.38	<.001

Table 3 revealed significant differences among the 3 groups with reference to hoarding behaviors, as participants with a HD show frequent hoarding behaviors. Individuals with a HD are more likely to exhibit frequent acquiring. They feel difficulty in discarding their possessions, which leads to cluttering/churning, as compared to individuals in the non-clinical sample and even in the clinical sample with OCD. However, participants with OCD reported significant obsessions, compulsions (washing and checking) and OCD related behaviors like neutralising and ordering as compared to the hoarding and non-clinical group. While talking about personality traits, extroversion, agreeableness, conscientiousness, and openness seems less prominent in individuals with HD, whereas neuroticism seem more prominent in individuals with HD as compared to OCD and the non-clinical sample. In terms of belief system, participants with HD significantly exhibit all four types of beliefs, such as beliefs of emotional attachment, belief of control, belief of responsibility, and belief of memory. They need control over possessions. They feel strong responsibility for acquiring material, and they cannot rely on their memory for saving things. They believe that every possession needs to be in front of them because they cannot rely on their memory.

Post Hoc analysis (Bonferroni) was run to further identify the minute differences among the three groups, which revealed that the hoarding group exhibited significantly higher neuroticism (MD=2.55, p=.001) as compared

to normal individuals. However, comparing hoarding with OCD, no significant difference was found on neuroticism (MD=.65, *P*=.96). Significantly low scores were found in the hoarding group on subscales of the personality scale: agreeable, extroversion, conscientiousness, and openness when compared with normal and OCD groups. On conscientiousness, the hoarding group exhibited significantly lower scores as compared to normal (MD=-2.58, *p*=.001) and OCD individuals (MD=-2.56, *p*=.001). On openness to experience, the hoarding group exhibited significantly lower scores as compared to normal (MD=-.76, *p*=.001) and OCD individuals (MD=-.74, *p*=.002). On extraversion, the hoarding group exhibited significantly lower scores as compared to normal (MD=-1.80, *p*=.001) and OCD individuals (MD=-2.36, *p*=.001). On agreeableness, the hoarding group exhibited significantly lower scores as compared to normal (MD=-2.27, *p*=.001) and OCD individuals (MD=-1.04, *p*=.001).

Likewise, hoarding individuals have strong beliefs of emotional attachment as compared to OCD (MD=5.69, *p*=.01) and the normal group (MD=16.00, *P*=.001). Likewise, the hoarding group significantly scored higher on belief of control as compared to OCD (MD=1.90, *p*=.01) and the normal (MD =4.65, *p*=.001). the hoarding group significantly scored higher on beliefs of responsibility as compared to OCD (MD=5.38, *p*=.001) and the normal group (MD=6.28, *p*=.001). Pairwise difference also indicated that the OCD group scored higher on responsibility as compared to the normal group but it was not statistically significant. The hoarding group significantly scored higher on memory as compared to the OCD (MD=6.43, *p*=.001) and normal group (MD=10.64, *p*=.001), respectively.

Discussion

In the current study, a few important demographics were initially matched among the three groups through Chi-square (categorical variables) and ANOVA (continuous variables). The analysis identified that the three groups (hoarding, OCD, and non-clinical) were similar in age, gender, education, marital status, occupation, family system, average working hours of the individuals, and the age when collecting was initiated. In the current study, the age band was expanded between 18 to50 years, but descriptive analysis revealed the mean age of participants to be 28 years. The age of hoarding material was reported to be 7 years. This was noticed during data collection that young individuals were more cooperative for research. Secondly, individuals' hoarding behaviors were maintained and

strengthened gradually with passing age. During the initial years of their lives, they exhibit clutter, difficulty in discarding items, wasting, and handing them over to others. But with passing time, they experienced acquiring. Daniela et al. (2017) also reported similar findings that difficulty discarding is experienced at the same age, but acquiring comes gradually with increasing age. This may be due to their lack of financial independence at a younger age. With passing age, they can use their financial rights in their interest. Ayers and colleagues (2011) reported the onset age of hoarding as a young age and intense behaviour in mean age of 67.5. Almost all the participants in the current study reported the age of hoarding before 30 years, and intensity with growing age.

The second observation was that in the non-clinical sample, women participants were the highest in number, followed by the hoarding sample. Existing research reported a mixed picture regarding gender in studies. Timpano et al. (2011) reported the same prevalence in both genders. Whereas Samuels et al. (2008) identified high HD in men. But Nordsletten et al. (2013) identified a high sample of women with HD. Mixed findings suggest further work on hoarding. Another finding was that individuals with hoarding were less educated as compared to OCD and non-clinical groups, but interestingly, in group comparisons, it was revealed that they vary between educational categories from illiterate till PhD and from different professional backgrounds. Nutley et al., (2022) reported almost all educational and occupational backgrounds in their findings.

Another observation was that unmarried participants were high in number in the hoarding and non-clinical group, with a slight difference from the OCD group. Likewise, in all three samples, the nuclear family system was prominent. Literature supports the ratio that individuals with hoarding are more likely to stay alone (Nordsletten et al, 2013).

In Pakistan, a few years back, the joint family system was common, but with the passage of time, the nuclear family set up has evolved. Itrat et al. (2007) highlighted the transition towards the nuclear family system in Pakistan. This transition may be due to the satisfaction associated with the burden of work in a joint setup, an independent routine, and less interference from entire family members.

Keeping in view the aim of the study, hoarding behaviors were tested with personality traits, and significant differences were found, supporting

the previous findings (Rasheed et al., 2026). Participants with a HD identified with high neuroticism and low conscientiousness, openness, agreeableness, and extroversion. Almost the same findings were reported by previous researchers. Büscher et al. (2014) revealed that individuals with HD experience some doubts about other people that they will discard their collected items without their permission. That is why, to avoid these consequences, hoarders avoid interacting with other people and limit their socialization. Such doubts increase social isolation and disparity (Büscher et al., 2014). Another research also highlights personality issues in participants with HD (Frost et al., 2000). Jantz and McMurray (2011) identified an association between an individual's isolation and acquiring behaviors. Hezel and Hooley (2014) and LaSalle-Ricci et al. (2006) also reported less extraverted personality in individuals with HD.

Non-clinical participants showed higher agreeableness than the other two groups. The findings revealed that hoarding individuals were less altruistic, cooperative, and agreeable compared to the other two groups. The existing study also reported the same findings: individuals with a high hoarding tendency also have high tendency to avoid harm and display non-cooperative and less persistent behavior (Spittlehouse et al., 2016).

On conscientiousness, lower scores were observed in hoarding individuals than in other groups, which reveals that individuals with HD were impulsive, less thoughtful, and less goal-oriented than other groups. Existing literature also supports the findings that individuals with HD are found to have high neuroticism and impulsivity and low scores on conscientiousness and distress tolerance (Hezel & Hooley, 2014). Likewise, LaSalle-Ricci et al. (2006) proved that individuals with HD exhibited less conscientiousness in their research. Following that, OCD participants showed high scores on conscientiousness. The literature supports the findings that OCD is associated with categorization, order, organization, and management (Inchausti at al., 2015). The same is true in the current study that OCD group is found organised but, the hoarding group came out disorganised and mismanaged.

Researchers also reported high neuroticism in participants with HD. Individuals with HD perceive themselves an inflexible, insecure, and less likely to obey others' commands; they start collecting material for their satisfaction and sense of security. (LaSalle-Ricci et al., 2006). Participants with HD were found to be more anxious and noncooperative during the

phase of data collection. They were less convinced about participating in the research due to their anxiety and worry.

While discussing beliefs, beliefs of emotional attachment, control, responsibility, and memory were found to be prominent in the hoarding group as compared to other groups, which shows their strong emotional attachment to their collected material compared to other participants. Frost et al. (2015) explored high emotional connection and increased tendency to save. Strong attachment increased the likelihood of acquiring and accumulating items even when they are useless, outdated, or meaningless (Collett, 2019). They carry strong beliefs that this item will be meaningful in the future. This belief compels individuals to accumulate items which, in which as a result grow in number and get mixed up with other items, losing their own identity and importance (Büscher et al., 2014). The same was observed during the current research where individuals with hoarding behaviors reported significant emotional attachment towards the possessions. A few excuses were also reported that these articles were gifted by near and dear relations and carry beautiful memories. Few gifts belonged to deceased persons, carrying a strong emotional bond, which resulted in failure to discard those items. A similar culture is observed in Pakistan where relocation of the possessions/saved material to the next generation brings pride and sense of accomplishment. In Pakistan, as collectivistic culture, few trends are not perceived as a burden, such as gifts or leftover items shifted from parents and grandparents which are perceived as an asset or pride for the rest of the family. The same is true with the items gifted by friends' circle. This was observed during data collection; this trend of saving from one generation to the next is considered pride. This is observed as a part of their cultural tradition. Such as, the first shirt of a new born is prepared from the old shirt of a grandparent. Likewise, girls inherit items from the mother as well as grandmother (Advameg, n.d.). Experts reported less confidence in hoarder' memory and perceived maximised unhealthy consequences of forgetting. Literature reported evidence of cognitive impairment and low confidence in memory in participants with HD (Mackin et al., 2016). In a recent study by Zakrzewski et al. (2022), significant cognitive impairments and memory concerns were reported in individuals with HD. The same findings were reported by Grisham & Baldwin (2015). The findings are consistent with the existing studies that acquisition of material was greater among hoarders as compared to normal and OCD participants due to the motive of aesthetic reasons and for saving

information (Kartal et al., 2026). Likewise, waste avoidance due to a belief of memory was significantly more prominent in participants with a HD. They believe they would forget or lose important information, and they should not rely on their memory. That is why they keep material in easy access. Another study reported that individuals with HD exhibit strong desire for control over their possessions that compels them to avoid recycle, giving away the particular object. They are interested to keep their own control or hold on their collected material. Others are not allowed to touch or change their place or give those items to anyone without their consent. Likewise, they also possess memory related concerns which reflects such beliefs that possessions are required as reminders (Bratiotis et al., 2021; Smith et al., 2025). The same is true in the current study. The individuals with HD reveal strong beliefs of control, memory and emotional attachment as compared to OCD and non-clinical, supported by Kartal et al. (2026). These beliefs, are most of the time, related with few of the demographic features like age, gender, socio economic status and education. Transcultural research explains hoarding behaviors in four different cultures. It explains that the hoarding behaviors, the intensity of the symptoms, common hoarding-related cognitions, and behaviors are stable in these four geographical locations. However, a few demographic variables and psychological issues emerged. A study from London added another variable as a predictor of HD is living alone and primarily being single. A study from UK and Brazil reported the similar mean age as mentioned in other countries but on the other hand studies from Spain and Japan reported younger age group than that of reported in other countries (Nordsletten et al. 2018).

Strengths

The generalizability of the study is high as the study results are applicable on the clinical as well as non-clinical population because this study ruled out HD from general community which was not documented by the mental health professionals. Moreover, identification of thinking patterns and personality type with reference to HD would be helpful as a pioneer work in Pakistan in various settings like psychiatric units/clinics, academic, community, and occupational places.

Limitations

Few limitations and challenges were also faced during the whole

procedure of research such as HD is not considered as a psychological problem in Pakistan yet these patients are not taken for clinical help. So the sample was collected from the community by following the standard research protocol which was the most difficult task to convince an individual to participate for research. Another limitation is that cross-sectional research hinders from identifying any causal inferences from the data. Although the study aimed at examining the predictors of HD, all the variables were assessed at one point of time. Experimental studies would help to study the factors of the hoarding phenomenon more accurately. Lastly, self-report measures were used, which may create bias and can minimise generalizability.

Implications

Belief modification is required to prevent its ever-increasing rate in society. The results of this study would help mental health professionals to set a milestone in the field for its awareness as well as for its better treatment culturally.

Conclusion

It is concluded that hoarding-related cognitions are the key factors for hoarding behaviors. Although, general community also had tendency to collect material but individuals with HD have less belief on their memory, feel extra responsibility to provide material, are emotionally more attached with possessions and feel more control over their possessions as compared to normal individuals. Likewise anxious personalities are more inclined towards saving material. Efforts need to be done on personal level as well as on societal level to prevent rigid schemas to have a better outcome for the physical and mental health in future.

Author Contribution

Aasma Yousaf: conceptualization, methodology, data curation, formal analysis, writing – original draft. **Rukhsana Kausar:** supervision, validation, data curation, writing – review & editing. **Iram Fatima:** formal analysis, writing – review & editing.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

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