ORIGINAL ARTICLE

Estimates and demographic correlates of hoarding disorder in non-clinical sample in Pakistan

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Abstract

Objective: To establish sample estimates of hoarding behaviour with demographic correlates in a non-clinical sample.

Method: The cross-sectional study was conducted in Islamabad, Pakistan, from February to April, 2018, and comprised data collected from Karachi, Lahore, Islamabad and Rawalpindi after approval from the COMSATS University, Islamabad. Data was collected using a self-developed demographic sheet, along with the hoarding rating scale. Data was analysed using SPSS, Version 20.

Results: Of the 375 subjects, 118(31.5%) were males and 257(68.5%) were females. The overall mean age was 42.25±13.007 years. Mean hoarding rating scale score was 8.34±6.69, with 76(20.3%) subjects falling in the clinical range of hoarding tendencies. There was a significant difference in the scores for Early Adulthood, Middle Adulthood and Late Adulthood (p<0.001). Gender comparison revealed significant difference (p<0.001). A significant positive correlation between hoarding and age was found (p<0.01) whereas a negative correlation was found between hoarding and monthly household income (p<0.01).

Conclusion: Hoarding tendencies were found to be in the clinical range for one-fifth of the sample.

Keywords: Hoarding disorder, Estimates, Demographics, Pakistan. (JPMA 71: 417; 2021)

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Introduction

Hoarding is a complex behaviour which consists of messy and disorganised collectors as well as individuals keeping worthless material possessions that invade their homes and essentially take over their lives, negatively affecting their quality of life.[1] It was initially classified as criterion included in obsessive compulsive personality disorder (OCPD) and was a symptom of obsessive compulsive disorder (OCD), but it is now classified in Diagnostic and Statistical Manual of Mental Disorders vewrsion 5 (DSM-V) as hoarding disorder (HD).[2]

Globally, different prevalence studies have reported high levels of hoarding tendencies in non-clinical population. A study on twins conducted in London[3] found that 2.3% twins had HD. Furthermore, higher prevalence was reported in males (4.1%) than in females (2.1%). Another study conducted in Germany revealed a current population estimate of 5.8% of HD with perfectionism, indecision, and procrastination as co-morbid conditions.[4] All these studies conclude that hoarding tendencies are emerging in different populations of western cultures, but there is dearth of information on estimates and prevalence of HD in other cultures.

Demographics may also play a part in HD development . People with HD were older, non-hispanic, living alone without any children and were more likely to be white.[5] A study[6] found higher prevalence of hoarding in men compared to women in the community sample, whereas another[7] found no evidence of gender differences in hoarding tendencies. However, it is known that behavioural traits in hoarding can change with age and that the gender differences may be present in adolescents, but not in adults.[4] Since, there is inconclusive literature on hoarding tendencies with demographic correlates, therefore research is needed in that direction.

The current study was planned to calculate estimates of HD, and to assess its demographic correlates.

Subjects and Methods

The cross-sectional study was conducted in Islamabad, Pakistan, from February to April, 2018, and comprised data collected from Karachi, Lahore, Islamabad and Rawalpindi after approval from the COMSATS University, Islamabad. In the light of literature[8] the sample size was calculated using the formula: $s=X^2NP(1-P)\div d^2(N1)+X^2P(1- P)$, where s = required sample size, X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841), N = the population size, P= the population proportion (assumed to be 0.50 since this would provide the maximum sample size) and d = the degree of accuracy expressed as a proportion (0.05). Based on this formula, a sample size of 384 was required for a population total of or more than 1,000,000.

Data was collected using purposive sampling technique. Those included were subjects of either gender aged 20-65 years with a minimum 14 years of education. The sample was divided into 3 age categories; early adulthood 20-35

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years, middle adulthood 36-50 years, and late adulthood 51-65 years. Those with qualification <14 years and those not willing to participate were excluded. After taking informed consent, a self-developed demographic sheet was administered to all the subjects. Items included age, gender and monthly household income. The Hoarding Rating Scale-Interview (HRS-I)_was utilised to gauge storing practices. It comprised 5 questions expected to mirror the proposed measurements of hoarding; trouble utilising living spaces because of messiness, trouble disposing of belonging, unreasonable procurement of articles, enthusiastic pain because of accumulating practices, and useful debilitation because of hoarding practices. All aspects were rated on a 9-point scale from 0 = none to 8 = outrageous. An aggregate HRS-I score was determined by figuring the entirety of each of the 5 domains. The cut-off score for HRS-I was 14. The internal consistency of the scale has been reported to be 0.87.[9,10]

The questionnaire used was in the English language, and was pre-tested on 10 people to assess whether the questionnaire was understandable by the targeted sample. Data was collected in person by approaching the subjects personally and online through different social media forums by sharing a Google link.

Data was analysed using SPSS Version 20. Independent t-test was employed for gender comparison among hoarding tendencies. Correlational analysis was done for age and household income with hoarding tendencies. Additionally, univariate analysis of variance was used to determine the statistically significant differences in hoarding tendencies in different age groups. P<0.05 was considered statistically significant.

Results

Of the 387 subjects enrolled, 375(97%) completed the questionnaire. Of them, 118(31.5%) were males and 257(68.5%) were females. The overall mean age was 42.25±13.01 years. There were 133(35.5%) in the early adulthood group, 133(35.5%) middle adulthood, and 109(29.1%) in the late adulthood group. Mean household income was Pak Rupee (PKR) 75761.33±44133.15.

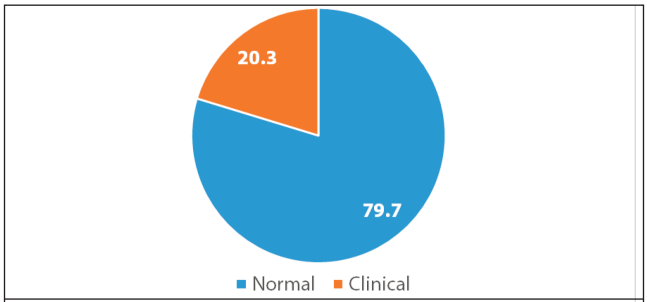

Figure: Levels of hoarding tendencies in the sample (n=375).

Table-1: Gender Comparison on Hoarding Rating Scale (HRS) (n-375).

Variable	Male Mean±SD	Female Mean±SD	t (373)	*p*-value	95% CI		Cohen's d
					LL	UL	
HRS	6.36±5.415	9.39±7.018	4.15	<0.001	-4.46	-1.59	0.48

LL: Lower Limit; UL: Upper Limit; SD: Standard deviation; ***p*<0

Table-2: Correlation between hoarding behaviour and continuous demographic variables. (n=375).

Variable	Mean±SD	1	2	3
HRS	8.34±6.69	-	0.567**	-0.308**
Age	42.25±13.007	-	-	-
Household Income	75761.33±44133.15	-	-	-

HRS: Hoarding Rating Scale; SD: Standard deviation; **p*<0.01

Table-3: Comparisons of age categories and Hoarding Rating Scale (HRS) (n=375).

	Early Adults Mean±SD	Middle Adults Mean±SD)	Late Adults Mean±SD	*f*	*p*-value	η^2
HRS	4.13±2.73	6.36±3.13	16.21±6.71	250.53	0.01	0.56

Note: **p< 0.00; SD: Standard Deviation; η^2=Partial eta square.

Mean hoarding rating scale score was 8.34±6.69, with 76(20.3%) subjects falling in the clinical range of hoarding tendencies (Figure). Gender comparisons revealed significantly higher hoarding tendencies in women compared to men (Table 1). A significant positive correlation was seen among hoarding behaviour and age whereas a negative correlation was seen between household income and hoarding behaviour (Table 2). There was a significant difference between the mean values of different age groups (Table 3).

Discussion

The hoarding behaviour is less studied in clinical population and, to the best of our knowledge, there is not a single study measuring hoarding tendencies in Pakistani population. The current study, as such, is a pioneering effort, and it also explored gender differences which were found to have significant impact. The correlation of age and household income also had significant relationship with hoarding tendencies. Hence, the current study was able to analyse hoarding tendencies on multiple levels.

The study showed 20.3% prevalence of clinically significant hoarding tendencies in the sample. These trends in our culture are consistent with earlier evidence.[11,12] Many theoretical perspectives may explain the plausible causes of higher hoarding tendencies. Psychological trauma caused by sexual abuse and violence in childhood is one important risk factor in developing hoarding behaviour in adulthood.[13] The situation of child sexual abuse is very critical in Pakistan. There is no official data on reported cases. Unofficial sources report 15-20% rate of sexual abuse of children aged <18.[14] The high percentage of hoarding behaviour in the general population can be attributed to

the higher rates of psychological trauma in childhood.

For demographic variables, higher hoarding behaviour scores were associated with being females, in late age group, and having lower household income. These findings are similar to recent studies based on non-clinical population,[15,16] showing that anthropomorphic tendencies are higher in females compared to males, which is a strong predictor of hoarding behaviour. The findings of the present study can be attributed to this psychological phenomenon and can be further verified.[17] The higher tendency can be also be attributed to the house-maker role of females, which makes them more protective and caring of their household items.

Monthly household income was negatively associated with hoarding behaviour, and the finding is consistent with earlier evidence from across the world.[18,19] There was a significant difference between the mean values of different age groups, with late adulthood scoring higher compared to middle and early adulthood groups. This is due to the fact that attachment with objects develop with time and increases to such an extent that people in late adulthood feel difficulty in discarding that object, hence, leading to hoarding tendencies.[5] Studies also suggest that pathological hoarding behaviours have a later onset and are associated with stress or due to loss of career, through retirement, or loss of a spouse.[20]

The current study has a few limitations. Gender ratio in the sample was not balanced which might have impacted the results. Future researchers can use different sampling techniques to get a balanced sample in this regard. Secondly, the questionnaire response rate was low for late adulthood group. Future researchers can use more direct methods of data collection to improve the return rate. Difference between diagnosis of the disorder and the natural phenomena of attachment with age should be explored in late adulthood participants.

Conclusion

Hoarding tendencies were found in 20% of the sample that was in the clinical range. Older adults, females and people with lower household income had higher hoarding tendencies.

Disclaimer: The text is based on a BS research project.

Conflict of Interest: None.

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