# Personality and Psychopathological Aspects in Animal Hoarding Measured Through HTP

Aspectos de Personalidade e Psicopatológicos no Transtorno de Acumulação de Animais Avaliado por Meio do HTP

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**Abstract**: Animal Hoarding Disorder (AHD) is characterized as a special manifestation of Hoarding Disorder and psychopathology with a significant impact on the personality aspects of the individual. This study aimed to investigate personality traits in individuals with Animal Hoarding Disorder through the House-Tree-Person (HTP) Test. In addition, this study identified correlations between personality traits, the total amount of animals and the type of animal hoarded. The sample consisted of 29 participants with AHD, with a mean age of 61.39 years (SD = 12.69) and 69% were women. The mean number of animals per household was 55.35 (SD = 17.75), between dogs and cats. The most frequent responses observed in the HTP were: withdrawal (f = 88), anxiety (f = 77), organicity (f = 70), regression (f = 69), insecurity (f = 57), rigidity (f = 53) and need for safety (f = 44). Correlations were found between Dysfunctional Personality Traits and the type of animal hoarded. The HTP instrument was suitable for evaluating the characteristics of this sample, indicating the possibility of a personality profile for these individuals.

Key-words: Animal Hoarding Disorder; Personality; Psychopathology; HTP.

**Resumo**: O Transtorno de Acumulação de Animal (TAA) é caracterizado como uma manifestação especial do Transtorno de Acumulação e uma psicopatologia com impacto significativo em aspectos da personalidade do indivíduo. O objetivo deste estudo é investigar traços de personalidade em indivíduos com Transtorno de Acumulação de Animal com o Teste de Casa-Árvore-Pessoa (HTP). O teste também procura identificar correlações entre traços de personalidade e quantidade total de animais, e o tipo de animal que está sendo acumulado. A amostra foi composta por 29 participantes com TAA, com idade média de 61,39 anos (DP = 12,69) e 69% eram mulheres. O número médio de animais por domicílio foi de 55,35 (DP = 17,75), entre cães e gatos. As respostas mais frequentes observadas no HTP foram: abstinência (f = 88), ansiedade (f = 77), organicidade (f = 70), regressão (f = 69), insegurança (f = 57), rigidez (f = 53) e necessidade de segurança (f = 44). Foram encontradas correlações entre os Traços de Personalidade Disfuncionais e o tipo de animal acumulado. O instrumento HTP foi adequado para avaliar as características dessa

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apontando para a possibilidade de um perfil de personalidade para esses acumuladores. **Palavras-chave:** Transtorno de Acumulação de Animais; Personalidade; Psicopatologia; HTP.

# Introduction

In DSM-5, animal hoarding is considered a special Hoarding Disorder condition. Compared with the hoarding of inanimate objects, the insight of animal hoarders is generally more impoverished and the living environmental conditions are often unhealthy (American Psychiatric Associatio*n*, 2014), causing harm to the health of the individual, the animals, and the community. More than the number of animals, what defines the disorder is the inability of the individual to provide the minimum necessary care for the animals, to recognize their suffering, and to provide sanitation conditions. Therefore, animals often have health problems and malnutrition (Ferreira et al., 2017; Patronek, 1999; Williams, 2014).

Animal hoarding is a significant problem in Brazil (Palosky et al., 2020), in the United States and internationally (Strong, Federico, Banks & Williams, 2018). In the United States, approximately 3000 cases of animal hoarding are reportable annually. Animal hoarding cases vary in size from fewer than 20 animals to hundreds of animals (Strong et al., 2018). A study by Arnold, Mackensen, Ofensberger & Rusche (2018), evaluated the situation of animal hoarding in Germany. Reports of 120 animal hoarding cases were collected between 2012 and 2015. A total of 9174 animals were hoarded during the investigated period. The results showed that cases involving cats were the most common, followed by cases involving dogs and small mammals. For the authors, animal hoarding is a current and severe problem.

Studies suggest animal hoarders suffer from an illusory type of disorder, as many believe they have special abilities to understand and protect their animals, although the lack of care is evident. Other studies suggest the possibility that individuals may have

dementia due to the lack of empathic ability regarding the precariousness of the animals (Frost, 2000; Ockenden, Groef, & Marston, 2014; Patronek, 1999).

A study performed in southern Brazil (Palosky et al., 2020) aimed to characterize the cognitive performance of 33 individuals with animal hoarding. The participants completed a neurocognitive battery including measures of general cognitive functioning, visual memory and organization, verbal fluency, and verbal reasoning. The results showed that individuals with animal hoarding present high rates of cognitive deficits related to visual memory and verbal reasoning. The authors suggest the existence of cognitive difficulties especially related to the executive functions of individuals with animal hoarding.

According to a documental study with 17 publicly available cases of animal hoarding, which included court documents, documents on animal service, photographs, and newspaper clippings, showed the most hoarded animals were cats, dogs, and rabbits. Most animals required veterinary care. For the authors, individuals with animal hoarding often have lack of insight about the condition of their animals and require community intervention (Dozier, Bratiotis, Broadnax, Le & Ayers, 2019).

The literature indicates animal hoarders may have experienced traumatic situations and unfavorable environmental conditions during childhood or adolescence. Often, hoarders have difficulties in establishing affective bonds with other people, preferring contact with animals (Nathanson, 2009; Reinisch, 2008). Thus, avoidance behaviors and social isolation are often observed since for these individuals the interaction with animals is more rewarding, safer, and convenient than the interaction with humans (Nathanson, 2009; Patronek & Nathanson, 2009).

According to the DSM-5, the prevalence of Hoarding Disorder in the population is 2 to 6%, usually beginning between 11 and 15 years old, and the course of the disorder is chronic (American Psychiatric Association, 2014). Regarding comorbidities, about 75% of individuals with hoarding disorder have mood or anxiety disorders, and major depressive disorder (up to 50% of cases), and social and generalized anxiety disorders are the most frequent. Obsessive-compulsive disorder is also mentioned as a possible comorbidity, affecting up to 20% of individuals (American Psychiatric Association, 2014). The incidence of panic disorder, post-traumatic stress disorder, and compulsive eating disorder are possible comorbidities to a lesser extent (Pertusa et al., 2008).

Ferreira, Paloski, Costa, Moret-Tatay & Irigaray (2020) performed a study to describe the psychopathological symptoms comorbid to animal hoarding disorder. The sample consisted of 33 individuals diagnosed with animal hoarding disorder, 24 women (72.7%) and 9 men (27.30%), with a prevalence of 64% of the elderly. For data collection, a Sociodemographic Data questionnaire and a Semi-Structured Clinical Interview were used, based on the DSM-5 Level 1 Cross-Cutting Symptom Measure. The mean number of self-reported was 1357 animals, with 915 (68%) dogs, 382 (28%) cats, and 50 (4%) ducks. The results indicated animal hoarding disorder the comorbid psychopathological symptoms of depression (36%), anxiety (36%), memory deficits (27%), mania (21%) and obsessive-compulsive disorder (18%). The participants who had hoarded animals for over 20 years presented a higher occurrence of these symptoms.

Animals Hoarding Disorder not only causes damage to the hoarder, but it also affects people and animals that live around them. However, the diagnostic criteria for identifying the disorder have not been well defined (Mataix-Cols, 2014), treated as a special manifestation of a Hoarding Disorder (American Psychiatric Association, 2014).

According to Patronek, Loar & Nathanson (2006), there are different types of animal hoarding, as the "overwhelmed caregiver", the "rescuer hoarder," the "exploiter hoarder", "incipient hoarder", and the "breeder-hoarder". According to Frost, Patronek, Arluke & Steketee (2015), the "exploiter hoarder" type may present dysfunctional traits of personality, such as manipulative and narcissistic aspects, and lacks guilt or remorse.

From these studies, the following research question was created: Do individuals with animal hoarding disorder have dysfunctional personality traits?

This study aimed to investigate personality traits in individuals with Animal Hoarding Disorder through the House-Tree-Person (HTP) Test. In addition, this study identified correlations between personality traits, the total amount of animals and the type of animal hoarded. Due to other tests used for personality assessment are extremely long and difficult to understand, the HTP technique was performed. HTP is fast, simple, and economical, and in a short time the evaluator can obtain underlying data about the personality of the individual (Buck, 2009; Lago & Bandeira, 2008; Rohail, 2015).

## Method

## Design

A cross-sectional, correlational, and exploratory study.

## **Participants**

Participants were identified by the Special Secretariat for Animal Rights (SEDA) of the city of Porto Alegre-RS/Brazil, which received complaints and administrative proceedings from 75 probable cases of animal hoarding. The team visited the residences from August 2015 to May 2016, totaling 61 houses visited. In total, 48 people received the team and 38 accepted to participate in the survey. Participants included in this study should meet the diagnostic criteria for Animal Hoarding Disorder in DSM-5 (American Psychiatric Association, 2014): (1) hoarding of many animals; (2) failure to provide minimum standards of nutrition, sanitation, and veterinary care; (3) failure to act on the animals' deteriorating condition (including disease, hunger, or death) and the environment (e.g. overpopulation and extremely unhealthy conditions).

From a total of 38 participants, three were excluded for not meet the diagnostic criteria for DSM-5 Animal Hoarding Disorder. One participant was excluded due to a sensorimotor problem that made it impossible to apply the diagnostic instrument, one participant for having a diagnosis of another mental disorder, and one for not responding to all the proposed instruments. After the exclusion criteria, 29 animal hoarders participated in the study. Among the participants one was illiterate, four had 1 to 4 years of education, four had 5 to 8 years of education, and sixteen had more than 8 years of education.

#### Instruments

Sociodemographic data sheet: a document to collect information on the variables age, sex, number of animals in the residence, and types of animals.

House-Tree-Person (HTP) Test: a projective technique used to obtain information about personality aspects, conflict areas, and problematic aspects of the individual's environment. In this test, the individual is invited to draw a house, a tree, and a person (Buck, 2009). The methodology proposed by Rohail (2015) was performed in this study, allowing data obtained from HTP were analyzed in synthetically, grouping all interpretive units into five thematic groups (Defenses, Needs, Pathologies, Conflicts, and Dysfunctional Personality Traits).

#### Data collection

The research project was approved by the PUCRS Ethics Committee (*CEP-PUCRS*) under CAAE: 44489715.8.0000.5336. The participants were contacted through home visits, and those who agreed to participate in the study completed and signed the Informed Consent Form (ICF). On the same day, participants individually responded to the assessment instruments cited in this study, in addition to others that were part of a broader assessment battery, lasting approximately two hours. The evaluations were

conducted by the project coordinator and the auxiliary team, formed by psychologists and undergraduate students in the Psychology course, all previously trained to apply the instruments and the interview. Visits in the houses of potential hoarders were accompanied by a veterinarian and a *SEDA* inspector. In order to obtain access to the houses of participants, the Environmental Public Prosecutor's Office of Rio Grande do Sul (*MPRS*) offered transportation to the researchers, by prior appointment.

The instruments were applied inside the houses visited or inside the vehicle provided by *MPRS* when there were no adequate conditions in the houses. Participants were alone with the interviewers and were not interrupted during data collection. During the evaluation of the participants, the animals were examined and treated by SEDA veterinarians, who produced formal reports with information on animal and environmental conditions. Animals identified as needing specialized treatment or castration were removed to a veterinary hospital, after the permission of the hoarder.

## Data Analysis Procedure

Quali-Quantitative Analyzes: The drawings of the 29 participants were interpreted by two clinical psychologists specializing in projective techniques and psychological evaluation, using the Buck (2009) criteria. Each unit of interpretation was tabulated, and then the content analyzed and categorized. These categories were shown to two others independent experts judges to eliminate any redundancy or overlap. Items with similar connotations have been unified (for example: 'egocentrism', 'concern with self', and 'self-absorption' were simply classified as "egocentrism"), and the frequency of occurrence of each interpreted unit was also tabulated for further analysis.

All constructs and characteristics raised in the HTP drawings were classified in thematic axes. For this procedure, the criteria suggested by several authors were used (Rohail, 2015; Schmoyer, 2008; Wenck, 2001). Five thematic clusters suggested in the literature were used: Defenses, Needs, Pathologies, Conflicts, and Dysfunctional Personality Traits (Rohail, 2015), divided into categories for a better understanding of the study: *Pathologies* – this axis included characteristics of the drawings considered as coming from pathological traits, such as paranoid tendencies, depressive traits, indicators of exaggerated obsessiveness, and difficulties in differentiating reality from fantasy. *Defenses* – includes the traces of drawings that represent the use of ego defenses, such as regression, denial, and repression. *Dysfunctional Personality Traits* – personality traits such as anxiety-state, aggressiveness, inadequacy, egocentrism, impulsivity, hostility, lack of self-confidence, lack of social skills, and dependence. *Needs and Feelings* – included: the need for affiliation and impotence, needs to master and control. *Conflicts and Fears* – conflicts with the environment, sexual conflicts, oedipal conflicts, and family conflicts were considered.

Quantitative Analyzes: The data were organized and analyzed in a database, created using the *Statistical Package for the Social Sciences* (SPSS, version 17) for Windows. Descriptive analyses were used such as mean (M), standard deviation (SD), absolute (n) e relative frequency (%) to describe sample data. As the data presented a normal distribution, parametric statistical tests were used. Pearson's correlation coefficient (*r*) was used to verify the correlation between the thematic categories and the number of dogs and cats. Associations with values of  $p \le 0.05$  were considered significant.

## Results

The final sample consisted of 29 participants, aged between 29 and 83 years (M = 61.39; SD = 12.69). Of these, 20 were women (69%) and nine were men (31%). The number of animals per residence ranged from 3 to 101 (M = 55.35, SD = 17.75), totaling 1.259 animals between dogs and cats. The participant with only three animals at the time of the data collection had previously experienced *SEDA* intervention when approximately 120 dogs were removed. Among the participants, nine had only dogs,

two only cats, and 14 dogs and cats. The frequency of the other HTP characteristics in each thematic cluster is presented in Table 1.

# Table 1

Frequency of each interpreted unit (n=29) create by authors.

Pathology	f	Defenses	f	Needs and Feelings	f	Conflicts and Fears	f	Dysfunctional Personality Traits	f
Psychosis	18	Compensation	31	Immediate Gratification	19	Gender Identity	1	Withdrawal	88
Organicity	70	Regression	69	Support	3	Loss of control	9	Rigidity	53
Depression	20	Fantasy	33	Safety	44	Sexual concerns	32	Impulsivity	25
Paranoia	17	Defensive Attitude	14	Realization	4	Fear of the environment	10	Concretism	21
Severe Psychopathology	6	Activity	2	Control	2	Anxiety	77	Introversion	4
Mania	4	Fixation on the past	19	Rejection	4	Tension	46	Immaturity	16
Schizoidia	2	Isolation	4	Guilt	1	Insecurity	57	Narcissism	1
Lability	3	Distrust	2	Abandonment	8	Concern with self	18	Poor sense of reality	17
Limits of weak ego	5	Effort to keep control over ego	11	Rejection	5	Future anticipation	1	Inadequacy	30
Poor contact with reality	14	-8-		Restrictive environment	32	Unrealistic effort	19	Oppositional	1
Auditory hallucinations	4			Discontentment	11	Frustration	17	Grandiosity	10
Emotional delay	1			Home lacks warmth	6	Trauma	4	Hostility	11
Obsessiveness	28			Dependency	33	Social ambivalence	2	Explosiveness	2
Aggression	22			Loss of autonomy	8			Hesitation	11
Compensatory Social Domination	7			Constriction	3				
Sexual mismatch	5			Out of control home situation	2				
Total	226		185		185		293		290

*Note. f* = frequency.

The most frequent responses in the HTP instrument were: withdrawal (f = 88), anxiety (f = 77), organicity (f = 70), regression (f = 69), insecurity (f = 57), rigidity (f = 53) and need for safety (f = 44). The frequency of responses in each category of thematic clusters can be greater than the number of participants. Different characteristics of a drawing can be scored in more than one category of thematic clusters, confirming the hypothesis that this aspect is present.

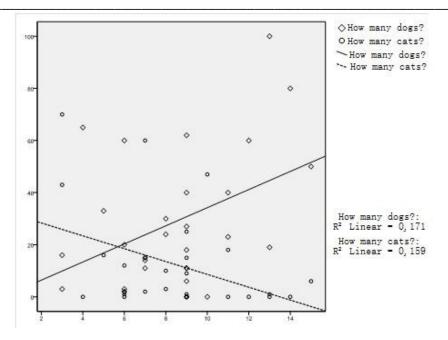
According to Table 2, statistically significant correlations were found between HTP category and the numbers of dogs and cats. The frequency of *Defenses* and *Dysfunctional Personality Traits* indicators correlated positively with the *number of dogs* in the residence. The *Dysfunctional Personality Traits* indicators correlated negatively with the *number of cats* in the residence.

# Table 2

Pearson correlation coefficients for investigated variables (r)												
	Number of dogs	Number of cats	Pathology	Defenses	Needs and Feelings	Conflicts and Fears	Dysfunctional Personality Traits					
Number of	Х	-0.43**	0.19	0.44*	0.12	0.11	0.41*					
dogs Number of cats		Х	-0.10	-0.20	-0.18	0.00	-0.40**					

*Note.* \*Significant correlations at the 0.05 level (2-tailed); \*\*Significant correlations at the 0.01 level (2-tailed).

All correlations were of *moderate*-intensity (Hair et al., 2006). The scatter plot in Figure 1 shows the correlations between the *Dysfunctional Personality Traits* category and the *number of dogs* and the *number of cats*. The more dogs in the residence, the greater the frequency of dysfunctional traits (r = 0.41, p = 0.026), and the more cats in the residence, the lower the frequency of dysfunctional traits (r = -0.40, p = 0.032).



**Figure 1.** Correlations between the Dysfunctional Personality Traits category and the number of dogs and the number of cats.

## Discussion

This study aimed to investigate personality traits in individuals with Animal Hoarding Disorder. In addition, this study identified correlations between personality traits, the total amount of animals and the type of animal hoarded. The results showed animal hoarders have the following personality traits: withdrawal (*Dysfunctional Personality Traits* cluster), anxiety (*Conflicts and Fears* cluster), organicity (*Pathology* cluster) regression (*Defenses* cluster), insecurity (*Conflicts and Fears* cluster), rigidity (*Dysfunctional Personality Traits* cluster) and need for safety (*Needs and Feelings* cluster).

According to DSM-5, Withdrawal (*Dysfunctional Personality Traits Cluster*) is described as a social-emotional withdrawal from the experience of interpersonal interactions, in which the individual prefers to be alone, demonstrating discomfort in social situations (American Psychiatric Association, 2014). The preference for social isolation was also observed in this sample of animal hoarders, as reported by other studies performed with the same population (Patronek, 1999; Steketee et al., 2011; Worth & Beck, 1981). For Steketee et al. (2011), living with animals provide emotional comfort to hoarders who present difficulties in affective relationships.

Anxiety (*Conflicts and Fears* cluster) was also found as the second most frequent personality trait in this sample. This result is corroborated by another study, where individuals with hoarding disorder have mood disorders or anxiety disorders (American Psychiatric Association, 2014). The study by Ferreira et al. (2020) also indicated that animal hoarding disorder shows comorbid psychopathological symptoms of depression (36%) and anxiety (36%).

The Organicity (*Pathology Cluster*) was the third most frequent personality trait in individuals with animal hoarding. According to Buck (2003), the manifests itself in individuals with tendencies focused on themselves, who manifest their suffering through organic problems. Other studies suggest individuals with animal hoarding may have dementia and lack of empathic ability regarding the precariousness of the animals (Frost, 2000; Ockenden et al., 2014; Patronek, 1999). According to Dozier et al. (2019), animal hoarders often lack insight about the condition of their animal. This lack of insight may be related to organic problems.

The results of this study showed how personality traits in animal hoarders: regression (*Defenses* cluster), insecurity (*Conflicts and Fears* cluster) and need for safety (*Needs and Feelings* cluster). The hypothesis explanation for the results may be associated with the difficulty that hoarders face in establishing affective bonds with other people, preferring contact with animals (Nathanson, 2009; Reinisch, 2008). Probably these individuals consider the relationship with animals safer and more rewarding than the interaction with humans (Nathanson, 2009; Patronek & Nathanson, 2009).

Rigidity (*Dysfunctional Personality Traits* cluster) appears as a personality trait present in this sample of animal hoarders. This result may be related to high rates of cognitive difficulties, especially related to the executive functions of individuals with

animal hoarding. Thus, the hoarders would have high levels of rigidity due to deficits in executive functioning (Palosky et al., 2020).

Statistically significant correlations were also found between the HTP category and the type of animal hoarded, mainly with the *Dysfunctional Personality Traits*. According to Frost et al. (2015), animal hoarders may present dysfunctional traits of personality. Thus, it can be inferred that *Dysfunctional Personality Traits* and the number of dogs and cats are related as follows: the higher the frequency of *dysfunctional personality traits* the greater the number of dogs, and the lower the frequency of *dysfunctional personality traits* the greater the number of cats.

The participants of the sample who hoarded dogs presented greater difficulties in their social relations and the performance of other activities, as well as in the care routines with the animals since dogs demand high dependence on care. Cat care routines are facilitated by the animal's independence. However, dogs demand more from their owners, such as higher financial costs and the need for larger spaces (Downes, Canty & More, 2009).

The characteristics of animal handling, the overload of caring for them, along with the large number of them in the environment, can contribute to increasing the social isolation of the hoarder (Nathanson, 2009; Patronek & Nathanson, 2009), consequently increasing stress and anxiety in these individuals. These aspects added up over time may be associated with damage to the health of the hoarder, since the dysfunctional personality traits accumulate more and more, producing a psychopathological circuit that feeds on itself.

The existence of a few empirical studies to discuss the results is highlighted as a limitation of this study. The need to construct other empirical studies to characterize the personality traits of animal hoarders is defended. Such studies may facilitate the construction and investigation of specific therapeutic interventions, which may help this population. The use of other instruments that assess aspects of the personality is indicated. The HTP is a projective test that presents limitations such as the understanding of the current context of the evaluated subject, and the possibility of bias in the correction, thus emphasizing the importance of two independent test corrections, as it ensures the reliability of the data found.

For de conclusion, the prevalent personality characteristics obtained by the HTP instrument were withdrawal, anxiety, organicity, regression, insecurity, rigidity and, need for safety, which may indicate the presence of a personality profile in this sample. The instrument was appropriate for evaluating the personality characteristics of these individuals since its data provided a robust analysis of the main characteristics of Animal Hoarding Disorder. These results corroborated with the findings of Ferreira et *al.* (2017), who indicated Animal Hoarding Disorder as a new psychopathology with its own characteristics, such as the hoarding of inanimate objects, differentiating it from Hoarding Disorder. The fragilities of the Self of the animal hoarder indicates the existence of an affective bond developed with "objects with life", as a way of filling an internally experienced void, different from the relationship established with inanimate objects.

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Submetido em: 02.01.2020 Aceito em: 21.07.2020