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# **TRABALHO FINAL**

## **MESTRADO INTEGRADO EM MEDICINA**

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Clínica Universitária de Psiquiatria e Psicologia Médica

### **Personality and Attachment in the Homeless: A Systematic Review**

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Maio de 2022



## **ACKNOWLEDGEMENTS**

I would like to express my deepest gratitude to my supervisor, Professor João Gama Marques, for his dedicated support and guidance during all phases of this project. Professor João Gama Marques provided continuous encouragement, was always available to assist, and proved to be an excellent supervisor. I don't think I could have had a better mentor.

A very special thank you to Dr. António Bento, my co-supervisor, for all his help and availability. The work of Dr. António Bento and of the Psychologist Elias Barreto is inspirational and provided the topic for the present work. I'm very grateful for their legacy.



## **ABSTRACT**

**Background:** Homeless people present high rates of psychopathology, including personality disorders. Given the link between personality disorders and attachment and the potential importance of these two traits for understanding homeless populations, our aim was to review all studies focusing on personality disorders and attachment in the homeless.

**Methods:** We used broad inclusion criteria to include all studies focusing on attachment and on at least three personality disorders in the homeless. Overall, 213 studies were screened through title and abstract. Of these, 63 were chosen for full-text assessment. A total of 14 articles met eligibility criteria and were included.

**Results:** Six studies evaluated personality in the homeless and eight studies focused on attachment in the homeless. In general, reports suggest personality disorders are highly frequent in the homeless, with frequencies ranging between 64% and 79% for any personality disorder. The most common personality diagnoses were paranoid, borderline, avoidant and antisocial personality disorders, but their frequencies varied greatly between studies. Attachment reports differed in the methods used and presented diverse results and correlates. Even so, insecure types of attachment dominated in the homeless in the few studies showing this analysis (accounted for 62% to 100% of the samples).

**Conclusions:** The high prevalence of personality disorders and insecure types of attachment in the homeless may impact intervention strategies for the homeless. The available literature focusing on attachment and the full assessment of personality disorders in the homeless is scarce. The present review supports the need for more research on these two topics.

**Keywords:** homeless, personality disorders, attachment.

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## RESUMO

**Introdução:** As pessoas em situação de sem-abrigo apresentam uma elevada prevalência de psicopatologia, incluindo perturbações da personalidade. Dada a associação entre perturbações da personalidade e vinculação, e a potencial importância destes dois temas na compreensão das pessoas sem-abrigo, o objetivo deste estudo foi o de rever todos os artigos que analisaram as perturbações da personalidade e a vinculação nas pessoas sem-abrigo.

**Métodos:** Nesta revisão usaram-se critérios de inclusão amplos, de modo a incluir todos os estudos sobre vinculação nos sem abrigo e todos os estudos sobre personalidade nos sem-abrigo, que tenham avaliado a distribuição de pelo menos três perturbações da personalidade. Um total de 213 estudos foram analisados por título e resumo, dos quais 63 foram escolhidos para leitura do texto completo. Destes, 14 artigos obedeceram aos critérios de inclusão, tendo sido incluídos nesta revisão sistemática.

**Resultados:** Dos 14 artigos incluídos, seis estudos avaliaram as perturbações da personalidade e oito estudos avaliaram a vinculação. As perturbações da personalidade revelaram-se muito frequentes nas pessoas sem-abrigo, ocorrendo em 64% a 79% das amostras. As perturbações da personalidade paranoide, borderline, evitante e anti-social foram as mais comumente identificadas, embora as suas frequências tenham variado entre os estudos. Os artigos sobre vinculação diferiram nos métodos usados e nos resultados obtidos. Ainda assim, observou-se uma predominância dos estilos de vinculação insegura nas pessoas sem-abrigo (62% a 100% das amostras).

**Conclusões:** A elevada prevalência das perturbações da personalidade e dos estilos de vinculação insegura nos sem-abrigo pode ter um impacto negativo nas estratégias de intervenção planeadas para ajudar estas pessoas. Esta revisão sistemática demonstrou que a literatura disponível sobre as perturbações da personalidade e a vinculação nos sem-abrigo é escassa, e que mais estudos são necessários sobre estes dois temas.

**Palavras-chave:** sem-abrigo, perturbações da personalidade, vinculação.

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## INTRODUCTION

Homelessness remains a global health concern in the 21st century. In the United States alone, around 550,000 people experienced homelessness on a single night in 2018 (Hossain et al., 2020). Other reports may present somewhat different values (Kidd & Shahar, 2008; Tsai, 2018), which may be related with the different definitions of homelessness (Monteiro Fernandes et al., 2021) used across studies.

Homeless people are one of the most vulnerable groups in society, and their past is usually not far better than their current situation. Histories of adverse childhood experiences, such as neglect, exposure to violence, divorce, loss, poverty and physical or emotional abuse are highly common among homeless people (Herman et al., 1997; Koegel et al., 1995).

Early trauma can have lifelong consequences and may help explain the high levels of psychopathology that is usually found in the homeless (Fazel et al., 2008). For example, childhood physical abuse has been linked to the development of antisocial behavior (Afifi et al., 2019). Antisocial personality disorder (ASPD), as well as personality disorders as a whole, have been found to be highly frequent in homeless populations (Caton, 1995; Fazel et al., 2008; North et al., 1997a; Rhee & Rosenheck, 2020).

Adverse childhood experiences can also influence an individual's attachment style. Attachment theory, developed by John Bowlby (Bowlby, 1969), postulates that the interactions of an infant with his primary caregiver creates a base for personality development and shapes subsequent relationships. Ainsworth and colleagues, using the Strange Situation (SS) procedure, identified different attachment styles, namely secure, avoidant and anxious/ambivalent (Ainsworth et al., 1978). In this experiment, infants were momentarily separated from their parents and left with a stranger in an unfamiliar setting. Secure infants were those that promptly explored the new environment under the care of the caregiver, were anxious in the presence of the stranger, were distressed with the parent's brief absence, and rapidly sought contact with the caregiver after reunion, feeling reassured by renewed contact, and continuing exploration. Avoidant infants were those that ignored the caregiver's return following separation, while

anxious/ambivalent infants sought contact with the caregiver, but did not feel soothed by the contact. A fourth attachment style, termed disorganized, was later established (Westen et al., 2006). This style is characterized by an incoherent pattern of reaction towards separation and reunion and by a disorganized behavior.

One important feature of attachment patterns is their relative stability through adolescence and adulthood (Rodríguez-Pellejero & Núñez, 2018). For example, the agreement between childhood and adulthood attachment was shown to be between 68% to 75% in previous studies (Lorenzini & Fonagy, 2013).

Attachment styles in adults can be assessed by different methods, based either on narrative interviews or in self-reports. For this reason, attachment instruments in adults sometimes measure somewhat different qualities (Westen et al., 2006). For example, the Adult Attachment Interview (AAI) is a narrative-based interview in which respondents provide five adjectives describing their relationship to each parent and then justify their choice with specific memories (Riggs et al., 2002). With this method, attachment styles are assessed by examining narrative's coherence, instead of its content. The four styles of attachment assessed by this method are secure, dismissing, preoccupied and unresolved. Securely attached individuals are those that can support their descriptions with specific examples, not idealizing nor remaining preoccupied with early parental figures. Dismissing adults (corresponding to avoidant attachment in children) tend to minimize attachment importance, by idealizing painful relationships or derogating attachment figures. Preoccupied individuals (corresponding to anxious/ambivalent attachment in children) are more vague in their descriptions, often presenting interruptions and distractions in their speech, as well as jargon and infantile wording. Unresolved individuals (corresponding to disorganized attachment in children) are those presenting affective disruption of coherence, confusion of time and place and long silences. These individuals usually have early histories of trauma, separation and loss that have not been properly resolved.

The Relationship Questionnaire (RQ) is another method available to explore adult attachment (Bartholomew & Horowitz, 1991). This is a self-report based questionnaire consisting in the rating of four paragraphs by respondents, each describing different

patterns of attachment namely, secure, dismissing, preoccupied and fearful. Participants ratings are performed using a seven-point scale, ranging from 1 (“not at all like me”) to 7 (“very much like me”). Securely attached individuals are those having high rates on the paragraph corresponding to emotional closeness with others, having comfort in depending on others and with having others depend on oneself. Dismissing individuals avoid and devalue closeness of others, preoccupied attachment corresponds to a need to be accepted and validated by others and fearful attachment corresponds to avoidance of others due to fear of rejection.

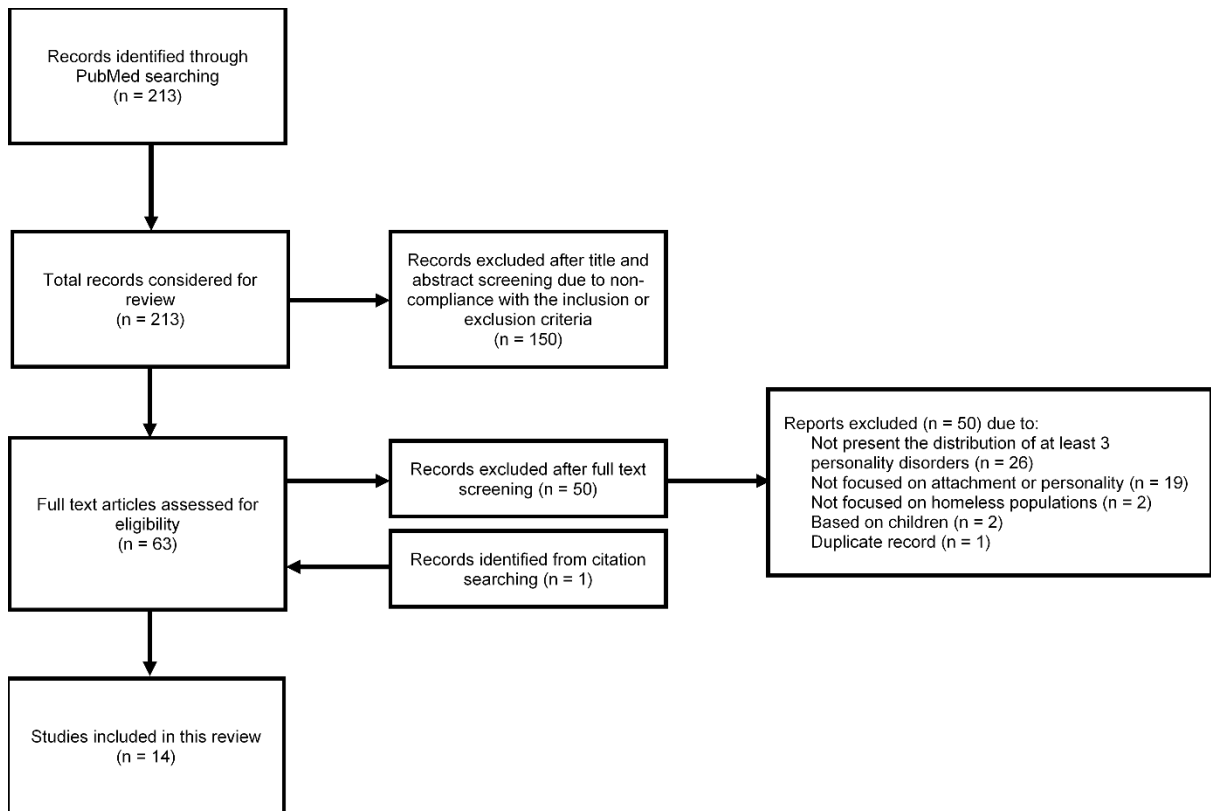
Previous studies have related insecure attachment patterns with personality disorders (Westen et al., 2006). For example, Brennan and Shaver (1998) found a significant degree of overlap between attachment styles and personality disorders, and found that insecure individuals had doubled the chance of having a personality disorder when compared to secure individuals (39% vs 75.0%). Rosenstein and Horowitz (1996) found that dismissing adolescents had greater risk for narcissistic and antisocial personality disorders, while preoccupied adolescents were more likely to have histrionic, borderline and schizotypal personality disorders. Another study (Nakash-Eisikovits et al., 2002) found that fearful attachment was positively correlated with almost all personality disorders, but particularly with borderline personality disorder (BPD). They also found that avoidant attachment was strongly associated with Cluster A personality disorders (i.e., paranoid, schizoid, and schizotypal), while anxious/ambivalent attachment style was more associated with borderline, histrionic, and dependent personality disorders.

Next September we will be celebrating the twentieth anniversary of a seminal book dedicated to the plight of the homeless people in Lisboa, Portugal, Europe: “*Sem-Amor Sem-Abrigo*”. Translated to English would be “Loveless Homeless”, co-written by António Bento (MD, Psychiatrist) and Elias Barreto (MSc, Psychologist). Since then much has been written regarding homelessness, but to our knowledge, this book still presents an original and unique approach, by connecting homelessness to the concept of lovelessness. Back at the time, while preparing his Master thesis in Psychology, Barreto interviewed a small sample of homeless people, mostly men, and found not a single case of secure attachment style. This zero prevalence of secure attachment style was much lower than expected, when compared to the general population. In other words, this



## METHODS

A search was conducted in PubMed database using the truncated terms “homeless\*”, “attach\*”, “personalit\*” and temperament\* (search details: (attach\*[Title/Abstract] AND homeless\*[Title/Abstract]) OR (personalit\*[Title/Abstract] AND homeless\*[Title/Abstract]) OR (temperament\*[Title/Abstract] AND homeless\*[Title/Abstract])). The search was last done on 5th of December, 2021. Since the available literature on the subject of attachment in the homeless is scarce, we considered any relevant studies published in English, regardless of date of publication, sample size, outcomes, comparators or length of follow up as potentially eligible for this review. A similar approach was used for the subject of personality in the homeless, but in this case only studies focusing on three or more types of personality disorders in the homeless were included. The search yielded 213 results, which were screened by title and abstract. Off-topic articles were excluded, resulting in 63 articles for full-text assessment. Of these, seven articles concerning attachment in the homeless and six articles concerning personality in the homeless met eligibility criteria and were included in this review. We also searched for additional papers among the references of the articles yielded in the Pubmed search, which resulted in an additional article for inclusion, focusing on attachment in the homeless. Figure 2 shows the flow diagram of the systematic review. General characteristics of the studies included in this review are summarized in Table 1.



**Figure 2: Flow diagram of the systematic review according to PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis).**

**Table 1: General characteristics of the studies included in the present review.**

Publication	Main Topic	Sample	Age (years)	Gender	Main Inclusion Criteria	Main Exclusion Criteria	Region	Instruments <sup>a</sup>
Ball et al, 2005	Personality	n = 52	19-57 yrs (mean age: 38 yrs)	94% male; 6% female	Alcohol/drug use in the past 30 days; diagnosis of PD;	Severe mental illness; violence; suicidality; pending incarceration	USA, Manhattan	PDQ-4R
Connolly et al, 2008	Personality	n = 60	≥ 18 yrs (mean age: 41 yrs)	68% male; 32% female	-	Acute suicidality, psychosis or violence	USA, New York	SCID-PQ
Salavera et al, 2013	Personality	n = 89	22-54 yrs (mean age: 39 yrs)	100% men	Staying > 2 months in a support center	-	Spain, Zaragoza	MCM-II
Salavera et al, 2014	Personality	n = 196	65% were < 40 yrs	-	Staying > 2 months in a support center	-	Spain, Zaragoza	MCM-II
Bassuk et al, 1986	Personality	n = 80	17-49 yrs (median: 27 yrs)	100% female	Being a member of a homeless family and residing in shelters	-	USA, Massachusetts	SSNI
Tsai, 2017	Personality	n = 704	≥ 18 yrs (mean age: 38 yrs)	50.6% male; 49.4% female	-	-	USA	AUDADIS
Taylor-Seehafer et al, 2008	Attachment	n = 27	16-23 yrs (mean age: 20 yrs)	48% male; 52% female	Living without adult supervision for ≥ 2 months	-	USA	AAI
Rodríguez-Pellejero and Núñez, 2017	Attachment	n = 107	mean age: 41 yrs	76% male; 24% female	Being a mid/long term beneficiary of housing facilities; ≥ 1 yr homelessness	Drug abstinence for > 1 month	Spain, Las Palmas	RQ
Tavecchio and Thomeer, 1999	Attachment	n = 108	15-24 yrs (mean age: 19 yrs)	35% male, 65% female	Being raised by an ethnically Dutch mother	-	The Netherlands	ASQ
Stefanidis et al, 1992	Attachment	n = 60	12-17 yrs (mean age: 17 yrs)	64% male; 37% female	-	-	USA, Los Angeles	AHQ and Separation Anxiety Test
Taylor-Seehafer et al, 2007	Attachment	n = 176	16-20 yrs (mean age: 19 yrs)	64% male; 37% female	-	-	USA	SCS and PRQ85-II

Munoz et al, 2019	Attachment	n = 95	Mean age: 20 yrs	65% male; 35% female	-	-	USA	AAS
Stein et al, 2009	Attachment	n = 501	12-21 yrs	50% male; 50% female	Having spent ≥ 2 consecutive nights away from home (without permission or after being told to leave)	-	USA, Los Angeles	Unnamed
Kidd and Shahar, 2008	Attachment	n = 208	14-24 yrs (mean age: 20)	59% male; 40% female; 1% transgender	-	-	USA, New York and Toronto	RQ

<sup>a</sup>Main instruments used to assess personality disorders or attachment. PDQ-4R, Personality Diagnostic Questionnaire - 4th edition; SCID-PQ, Computer-assisted Structured Clinical Interview II Personality Questionnaire; MCM-II, Millon Clinical Multiaxial Inventory-II; SSNI, modified Social Support Network Inventory; AUDADIS, Alcohol Use Disorder and Associated Disabilities Interview Schedule; AAI, Adult Attachment Interview; RQ, Relationship Questionnaire; ASQ, Attachment Styles Questionnaire; AHQ, Attachment History Questionnaire; SCS, Social Connectedness Scale; PRQ85-II, Personal Resource Questionnaire; AAS, Adult Attachment Scale.

## **RESULTS**

Wide variability in the measurement of attachment and personality was found across studies. No study simultaneously reported on attachment and personality in the homeless.

### **Main Results of the Personality Studies in the Homeless**

The main results concerning personality in the homeless from the six personality studies included in this review are summarized in Table 2.

The study from Ball and colleagues (2005), evaluated the psychiatric symptoms, psychosocial problems, and treatment response of 52 homeless individuals (mean age of 38 years) receiving services in a drop-in center in Manhattan. Alcohol or drug use in the past 30 days and a diagnosis of personality disorder were amongst the inclusion criteria. Participants were assessed in respect to personality disorders, substance use disorders, addiction severity, severity of psychiatric symptoms, interpersonal problems and early maladaptive schemas. Personality disorders were primarily assessed using the Personality Diagnostic Questionnaire - 4th edition (PDQ-4R) (Koegel, 1988). Participants presenting a sufficient number of symptoms in the PDQ-4R were further evaluated regarding chronicity, pervasive maladaptivity, independence from other disorders and distress.

Cluster A disorders were found in 88% of the sample, with paranoid personality disorder being the most common (74%), followed by schizotypal (56%) and schizoid (42%) personality disorders. Cluster B disorders were found in 74% of the sample, with BPD (51%) and ASPD (47%) being the most frequent personality disorders. Cluster C disorders were detected in 85% of the sample, with avoidant (63%) and obsessive-compulsive (61%) being the most common diagnosis.

Additionally, using the family/social section of the Addiction Severity Index (ASI) (McLellan et al., 1992), 54% of the participants reported not living with family, friends, or significant others over most of the previous three years. Most of the respondents

**Table 2: Main results concerning personality in the homeless from the six personality studies included in this review.**

<b>Personality Disorders</b>	<b>Ball et al, 2005 (n = 52)</b>	<b>Connolly et al, 2008 (n = 60)</b>	<b>Salavera et al, 2013 (n = 89)</b>	<b>Salavera et al, 2014 (n = 196)</b>	<b>Bassuk et al, 1986 (n = 80)</b>	<b>Tsai, 2017 (n = 704)</b>
Paranoid	74%	44 (73%)	12 (14%)	-	-	-
Schizoid	42%	39 (65%)	17 (19%)	30 (21%)	2 (3%)	-
Schizotypal	56%	26 (43)	14 (16%)	-	-	162 (27%)
Antisocial	47%	34 (57)	23 (26%)	37 (26%)	3 (4%)	79 (15%)
Borderline	51%	37 (62)	8 (9%)	-	5 (6%)	269 (45%)
Histrionic	23%	12 (20)	7 (8%)	-	1 (1%)	-
Narcissistic	35%	34 (57)	8 (9%)	-	3 (4%)	-
Avoidant	63%	30 (50)	12 (14%)	-	-	-
Dependent	12%	15 (25)	18 (20%)	31 (22%)	19 (24%)	-
Obsessive-Compulsive	61%	34 (57)	20 (23%)	37 (26%)	-	-
Other	-	-	-	-	10 (13%)	-
Atypical	-	-	-	-	8 (10%)	-
Mixed	-	-	-	-	3 (4%)	-
Passive-aggressive	-	-	-	-	3 (4%)	-
Agressive	-	-	13 (15%)	-	-	-
Passive	-	-	8 (9%)	-	-	-
Self-defeating	-	-	8 (9%)	-	-	-

reported periods of serious problems with their nuclear family (50%) or with a partner/spouse (63%) over their lifetime. History of physical abuse and sexual abuse was reported by 42% and 21% of the respondents, respectively. A high percentage of respondents reported substance abuse (75%) and other psychiatric disorders (44%) in one or both parents.

In this study, after primary assessment, participants were randomly assigned to receive either individual psychotherapy (focused on personality disorder and substance abuse relapse prevention) or standard group substance abuse counseling. However, follow-up assessments were compromised by the inability to locate participants. Most of their sample failed to appear in treatment appointments and in drop-in center services, with 60% of participants abandoning treatment by the end of the first month.

A later study from the same team (Connolly et al., 2008), evaluated the prevalence of Axis I and II diagnoses, according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV-TR), in a sample of 60 homeless adults (mean age of 41.3 years) receiving services at two drop-in centers in New York. They used Computer-assisted structured clinical interview to assess DSM-IV Axis I psychiatric disorders, while personality disorders were primarily assessed using the Computer-assisted Structured Clinical Interview II Personality Questionnaire (SCID-PQ) (First & Gibbon, 2004). Each SCID-PQ endorsed item was then further evaluated regarding chronicity, pervasive maladaptivity, independence from Axis I disorders and distress.

The rates of specific Axis II disorders exceeded the rates of specific Axis I disorders, with over half of the personality disorders assessed having rates exceeding 50%. Almost all participants (92%) met criteria for at least one diagnosis of cluster A personality disorder (i.e. paranoid, schizoid or schizotypal personality disorders). Most of the participants (83%) met criteria for one of Cluster B diagnosis (i.e. antisocial, borderline, histrionic or narcissistic personality disorders) and around two thirds of the sample had at least one of Cluster C disorders (i.e. avoidant, dependent or obsessive-compulsive personality disorders). Multiple diagnoses were therefore the norm (average of 5.8, SD = 3.2).

Salavera and colleagues published two studies concerning personality disorders in the homeless (Salavera et al., 2013, 2014). The study published in 2013 comprised 89 adult

participants (mean age of 39 years) of a reintegration center in the Spanish city of Zaragoza (Salavera et al., 2013). To assess personality of the individuals they used the Millon Clinical Multiaxial Inventory-II (MCMI-II) (Millon, 1997). This is a questionnaire consisting of 175 true or false questions ranking several personality diagnoses (i.e. schizoid, avoidant/phobic, dependent, histrionic, narcissistic, antisocial, aggressive/sadistic, compulsive, passive/aggressive, self-defeating, schizotypal, borderline and paranoid personality disorders) as well as other clinical syndromes.

The most frequent personality diagnoses were antisocial (26%), compulsive (23%), dependent (20%), and schizoid (19%) personality disorders. Most of the participants (64%) had at least one personality disorder, while participants with two, three and four personality disorders accounted for 12%, 10% and 19% of the sample, respectively.

The second study of Salavera and colleagues was published in 2014 and included 196 participants of a psychosocial insertion center in Zaragoza, Spain (Salavera et al., 2014). In this case, the goal was to analyze the comorbidity of attention deficit hyperactivity disorder and personality disorders in the homeless. Personality of homeless individuals was again assessed using the MCMI-II (Millon, 1997).

Concerning personality disorders, and similar to their previous results, antisocial (26%), dependent (22%), compulsive (26%) and schizoid (21%) personality disorders were the most frequently found diagnoses. Overall, 79% of the sample showed one or more personality disorders and almost half of the individuals (49%) received three or more personality diagnoses.

A study from Bassuk and colleagues (1986) provided Axis-II diagnoses of 80 homeless mothers (median age of 27 years) living in family shelters in Massachusetts. The personality diagnosis were obtained using a structured questionnaire, the modified Social Support Network Inventory (SSNI) (Flaherty et al., 1983). Additionally, using a semi-structured clinical interview of about 260 items, further data was gathered from their sample, including developmental background, family disruptions and patterns of violence, and adult functioning (Bassuk et al., 1986).

Regarding personality, 71% of the homeless mothers presented a personality disorder, with the most frequent being dependent (24%) and atypical (10%) personality disorders. Concerning the past of the sample, one-third of the participants reported being physically or sexually abused during their childhood and two-thirds of the sample reported experiencing a major family disruption (e.g. separation or divorce of the parents, which accounted for almost 50% of cases; death of a parent; mental illness and alcoholism of the parent; and state placement). Additionally, a third of the participants had never known their fathers. At the time of the interview, 26% of the respondents reported lacking a supportive relationship, 18% reported having one supportive relationship and 20% reported having two supportive relationships. Besides, 25% of the mothers named their child as their major support.

Lastly, a study by Tsai (2018) used a representative sample of 36299 US adults ( $\geq 18$  years) to determine the life-time and 1-year prevalence of homelessness in the United States of America (USA), while also evaluating its demographic and psychosocial characteristics, including the prevalence of three personality disorders (i.e. borderline, schizotypal and antisocial personality disorders). They used the Alcohol Use Disorder and Associated Disabilities Interview Schedule (AUDADIS), a structured diagnostic tool, to assess substance use disorder as well as selected personality and other psychiatric disorders, according to Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria (Grant et al., 2015).

A total of 1683 individuals reported not having a place to live for more than one month sometime in their lifetime, while 704 respondents reported being homeless sometime during the previous year. Compared with the remaining sample ( $n = 35595$ ), past-year homelessness respondents presented a higher prevalence of all the three personality disorders evaluated. BPD was by far the most common personality disorder, occurring in 45% of the past-year homelessness participants and in 11% of the non-past year homelessness participants. In spite of their lower prevalence when compared with BPD, schizotypal and antisocial personality disorders were still more prevalent in the group of past-year homelessness individuals (27% and 15%, respectively) than in the remaining non-past year homelessness individuals (6% and 2%, respectively).

## **Main Results of the Attachment Studies in the Homeless**

Taylor-Seehafer and colleagues (2008) examined homeless youths' perspectives on attachment, trauma and substance use. The sample consisted of 25 homeless individuals, aged 16 to 23 years, reaching for health or social services, and living without adult supervision for 2 months or more. Attachment was assessed using the AAI (Riggs et al., 2002). Participants were classified as secure–autonomous, insecure–dismissing, insecure–preoccupied, insecure–cannot classify or unresolved. The “cannot classify” group included adolescents that did not present a consistent strategy, showing instead a mix of secure–autonomous, dismissing and preoccupied strategies. Participants placed in the “unresolved” category were also assigned to one of the other groups (secure, dismissing, preoccupied or cannot classify).

Authors found the sample to be highly traumatized, with 74% of the participants reporting emotional abuse, 70% reporting physical abuse and 55% reporting sexual abuse. None of the participants presented a secure attachment style. Instead, participants were distributed as follows: four were classified as dismissing, one was classified as preoccupied, 15 were classified as unresolved and five were assigned the “cannot classify” as a primary attachment pattern. The majority of the sample (78%) scored low to average social connectedness and 82% reported moderate to high alcohol or other drug abuse. No statistically significant correlations were found for attachment pattern, social connectedness, and alcohol or other drug use/abuse, probably due to the small sample size, as authors stated.

A study by Rodríguez-Pellejero and Núñez (2018) determined the prevalence of adult attachment styles and executive dysfunction in a sample of homeless individuals, and analyzed the relationship between type of attachment and executive dysfunction, to determine if different types of attachment could predict executive functioning. The sample consisted of 107 Spanish homeless individuals (mean age of 41 years) assisted in housing facilities between 2013 and 2015. Attachment was evaluated using the Spanish adaptation of the RQ (Yárnoz-Yaben & Comino, 2011). Attachment styles were secure, dismissive–avoidant, preoccupied, and fearful–avoidant. Executive functioning was assessed with the Spanish version of the Dysexecutive Questionnaire (DQ) (Llanero-

Luque et al., 2008), which consists of five dimensions: inhibition, intentionality, executive memory and two factors related to emotional and personality changes.

Insecure types of attachment were the most prevalent in this sample, with 63% of the subjects self-identifying with one of the three insecure attachment styles. The distribution of the sample by attachment style was the following: 22% were classified as dismissive-avoidant; 18% were classified as preoccupied, 22% were classified as fearful-avoidant and 37% were classified as secure. Executive dysfunction was also common in this sample (44%). There was a negative and significant correlation between secure attachment style and all dimensions of executive dysfunction, namely inhibition ( $r = -0.31, p < 0.01$ ), intentionality ( $r = -0.28, p < 0.01$ ), executive memory ( $r = -0.22, p < 0.05$ ), positive affect ( $r = -0.20, p < 0.05$ ) and negative affect ( $r = -0.45, p < 0.01$ ). There was a positive and significant correlation between some insecure attachment styles (i.e., preoccupied and fearful) and the dimensions of intentionality ( $r = 0.28, p < 0.01$  and  $r = 0.20, p < 0.05$ , respectively), executive memory ( $r = 0.26, p < 0.01$  and  $r = 0.37, p < 0.01$ , respectively), and expression of negative affect ( $r = 0.29, p < 0.01$  and  $r = 0.38, p < 0.01$ , respectively). Only dismissive-avoidant attachment style had no significant correlations with any of the executive dysfunction dimensions.

Tavecchio and Thomeer (1999) published a study comparing homeless youths ( $n = 108$ ) with residential youths ( $n = 85$ ) and youths from the standard population ( $n = 1228$ ) in terms of family background, parenting style, experiences of separation and loss, and quality of the attachment relationship. The age of the participants in the three groups was between 15 and 24 years. The responsiveness of the parents was measured with the Parental Bonding Instrument, consisting of 25 questions about parents' care and control in the first 16 years of the participant's life (Parker et al., 1979). Using the Attachment Styles Questionnaire (ASQ) (Hazan & Shaver, 1987) authors measured the opinions of the participants about themselves and their social environment. Four attachment styles were distinguished, namely secure, avoidant, ambivalent and disoriented attachment.

Over half of the residential and homeless youths experienced their first separation before age 10. Homeless youths experienced the least care and the most control from

both father and mother ( $p < 0.001$ , for the difference of the three groups by analysis of variance). Only 13% of the homeless youth described themselves as securely attached. The percentage was higher for the general population group (33%) and the residential group (23%). The securely attached youths perceived both parents as more caring and as less controlling than the insecurely attached participants ( $p < 0.001$ , by analysis of variance).

In this study the social network of the three groups was also evaluated using the Personal Network (PN) (representing the degree to which the participant reports being supported in relationship problems by 10 explicitly-named family and friends network members) (Tavecchio et al., 1999) and the Social Support Questionnaire-6 (SSQ-6), measuring the perceived social support by the number of people available in six specified problem situations, and the satisfaction felt with that support) (Sarason et al., 1983). They found the homeless youth scored much lower than the residential and standard population groups in terms of social network, for both family and friends factors. According to SSQ-6 results, homeless youths reported a smaller number of supportive people available to them when compared with residential youths. Additionally, residential youths were more satisfied with their network than homeless individuals.

A study from Stefanidis and colleagues (1992) explored homeless youths behavior using Bowlby's attachment perspective and evaluated the experiences and behavior of runaways who were able to move from crisis intervention services into stable living situations. The total sample consisted of 60 homeless youths, aged between 12 and 17 years. Of these, 40 were current Los Angeles Youth Network (LAYN) shelter residents and 20 were former LAYN shelter residents. Participants were distributed in three groups: a Stabilization-Responsive (SR) group, composed of shelter residents who actively pursued a stabilization goal, followed rules, voluntarily participated in activities, assumed responsibilities and were respectful and helpful to others; a Stabilization Non-Responsive (SNR) group, composed by residential youths who left the program prematurely, did not follow rules, missed appointments and did not respect staff and peers; and a stabilized group, which was a control group of former runaways. Participants were evaluated by the Attachment History Questionnaire (AHQ) and the

Separation Anxiety Test. The AQH was designed to assess basic areas of family life and the family interactions reflecting attachment between children and caregivers. The second test uses 12 pen-and-ink drawings depicting several situations that occur frequently in childhood and adolescence. With this test, participants are asked to select all applicable responses to specific situations in order to generate patterns of response. Attachment, individuation and self-love-loss were the patterns of response evaluated in their study (Stefanidis et al., 1992).

Stabilization Non-Responsive youths had less positive attachment histories and were less able to reintegrate into society than their SR counterparts. The stabilized group and the SR group were similar in their attachment histories and were significantly different from the SNR group. Differences were also found in all patterns of the Separation Anxiety Test, with the SNR group scoring below normal range for attachment, but showing scores consistent with self-love-loss and individuation. Stabilized and SR youths showed greater need for care and attention from caregivers than did the SNR group. SNR youths were less engaged with caregivers than were SR youths. Additionally, SNR youths adopted more frequently an uninvolved attitude toward their homelessness and helping staff.

Another study from Taylor-Seehafer and colleagues (2007), evaluated attachment and sexual health behaviors in homeless youths using a sample of 176 individuals, aged between 16 and 20 years. Several variables were measured using different self-report research instruments, with the Social Connectedness Scale (SCS) and the Personal Resource Questionnaire (PRQ85-II) (Weinert, 1987) being the relevant instruments in terms of attachment assessment. The PRQ85-II is a global measure of perceived social support based conceptually on a multidimensional model of relational functions, namely attachment/intimacy, social integration, opportunity for nurturance, reassurance of worth, and availability of assistance from others (Taylor-Seehafer et al., 2007).

Social connectedness and social support were highly correlated with each other ( $r = 0.44$ ,  $p < 0.01$ ), but correlated differently with the remaining variables in the study. For instance, social connectedness was significantly correlated with time homeless ( $r = 0.28$ ,  $p < 0.01$ ), while social support significantly correlated with sexual self concept ( $r = 0.18$ ,

$p < 0.05$ ), intention to use condoms ( $r = 0.22$ ,  $p < 0.01$ ) and self-efficacy to use condoms ( $r = 0.42$ ,  $p < 0.01$ ). Authors highlighted that although attachment has been linked to social connectedness and social support in previous studies, it is necessary to retain separate measures of connectedness and social support because of their conceptual distinctions (Taylor-Seehafer et al., 2007).

Starting from the attachment principle that Adverse Childhood Experiences (ACEs) predict lower trust in the medical profession, Munoz and colleagues (2019) searched for a dose-response relationship between exposure to ACEs and lower trust in the medical profession, in a sample of young adults. The sample was composed of 107 participants (of whom 95 completed all items on the survey), with a mean age of 20 years, self-reporting as homeless and receiving services from an outreach program for young adults. ACEs were measured by the Adverse Childhood Experiences Scale (Felitti et al., 1998) which is a 10-item measure capturing the total number of ACEs experienced per respondent. Trust in the Medical Profession Scale (MPS) (Hall et al., 2002) based on 11-items, was used to capture the respondent's overall trust in the medical profession. Attachment was measured with the Adult Attachment Scale (AAS) (Collins & Read, 1990) an 18-item measure that captures a person's general comfort with closeness and dependency on others. The AAS contains three subscales, namely close, depend, and anxiety, with each subscale containing six items. Higher scores on the close and depend subscales indicate more comfort with being close to and depending on others, while higher scores on the anxiety subscale indicate more worry about being abandoned or unloved by others.

Respondents reported a high level of adult-perpetrated childhood trauma, with up to 90% of the homeless individuals reporting at least one ACE, and 73% reporting four or more ACEs. This contrasts with a general population sample ( $n = 17337$ ) where 64% of respondents reported one or more ACEs and 13% of respondents reported four or more ACEs. Hierarchical regression analysis using the covariates age, gender, ethnicity, and all three AAS subscales showed that only comfort in depending on others and attachment anxiety significantly predicted trust in the medical profession, with comfort in depending on others having a positive relationship, and anxiety toward others having a negative relationship. When also entering ACE scores as a block (1 ACE, 2 ACEs, 3 ACEs, and 4 or

more ACEs) all three AAS subscales were significant predictors of trust in the medical profession, with comfort in depending on and being close to others having a positive relationship and anxiety demonstrating a negative relationship. Additionally, all ACEs groups were significant predictors of lower trust in the medical profession.

Based on a sample of 501 homeless and runaway youths (aged 12 to 21 years) and using an Attachment Theory conceptual framework, Stein and colleagues (2009) searched for a differential protective effect of attachment to mothers and fathers in terms of youths' recent problem behaviors. They hypothesized that positive attachments and relations with both mothers and fathers are important in mitigating adverse behaviors. For this purpose, attachment theory was operationalized with one latent variable representing the quality of youths' relationship with their mother and one representing the quality of youths' relationship with their father. Each latent variable was constructed with six items: "I fight with her/him all the time," "I do not respect my mother/father," "She/he does not respect me," "My mother/father loves me," "My mother/father does not care for me," and "I love my mother/father". Possible responses were 1 = strongly agree, 2 = agree, 3 = disagree, and 4 = strongly disagree. Reason for living home, substance use, criminal behaviors, survival sex and psychological distress were also evaluated in this study by different methodologies.

Positive attachments to parents had protective influences on problem behaviors and emotional distress. A good relationship with the father was significantly associated with a good relationship with the mother ( $r = 0.25$ ,  $p < 0.001$ ), decreased probability of leaving home due to abuse and violence ( $-0.023$ ,  $p < 0.001$ ), less substance use ( $r = -0.25$ ,  $p < 0.001$ ), less criminal behavior ( $r = -0.24$ ,  $p < 0.001$ ) and less psychological distress ( $r = -0.12$ ,  $p < 0.05$ ). A good relationship with the mother was associated with decreased probability of leaving home due to abuse and violence ( $r = -0.28$ ,  $p < 0.001$ ) and less psychological distress ( $r = -0.18$ ,  $p < 0.001$ ), and was also associated with less survival sex ( $r = 0.16$ ,  $p < 0.01$ ). A better relationship with the mother was associated with male gender ( $r = 0.19$ ,  $p < 0.001$ ), but no association between relationship with the father and gender of the participants was found.

A study from Kidd and Shahar (2008) examined the interactions between risk and resilience factors among homeless youths to identify key protective factors that might be targeted in interventions for homeless youths. The sample consisted of 208 youths, aged between 14 and 24 years, who either had no fixed address or were living in a shelter at the time of the survey. Similarly to what was done by Rodríguez-Pellejero and Núñez (2018) attachment style was assessed using the RQ (Yárnoz-Yaben & Comino, 2011). Several other variables and outcomes were included in their study, such as maltreatment, neglect, social involvement, self-esteem and loneliness, and correlated with each other and with attachment styles.

Secure attachment was positively associated with social involvement ( $r = 0.33, p < 0.001$ ), self-esteem ( $r = 0.20, p < 0.01$ ) and subjective health status ( $r = 0.23, p < 0.01$ ) and was negatively associated with loneliness ( $r = -0.17, p < 0.05$ ), childhood sexual abuse ( $r = -0.24, p < 0.001$ ), childhood neglect ( $r = -0.24, p < 0.001$ ) and suicidal ideation ( $r = -0.15, p < 0.05$ ). Fearful attachment was positively associated with physical abuse ( $r = 0.16, p < 0.05$ ), sexual abuse ( $r = 0.16, p < 0.05$ ), neglect ( $r = 0.16, p < 0.05$ ), sexual orientation ( $r = 0.18, p < 0.01$ ), being bullied ( $r = 0.19, p < 0.01$ ), sex trade involvement ( $r = 0.16, p < 0.05$ ), loneliness ( $r = 0.23, p < 0.01$ ), feeling trapped ( $r = 0.23, p < 0.01$ ) and suicidal ideation ( $r = 0.23, p < 0.01$ ), and negatively associated with social involvement ( $r = -0.16, p < 0.05$ ), self-esteem ( $r = -0.19, p < 0.01$ ) and subjective health status ( $r = -0.16, p < 0.05$ ). Preoccupied attachment was positively associated with sexual orientation ( $r = 0.15, p < 0.05$ ), loneliness ( $r = 0.30, p < 0.01$ ), feeling trapped ( $r = 0.23, p < 0.01$ ) and suicidal ideation ( $r = 0.16, p < 0.05$ ) and was negatively associated with social involvement ( $r = -0.16, p < 0.05$ ).

## DISCUSSION

In general, the studies included in this review suggest that personality disorders are highly frequent in the homeless. Three out of six personality studies presented the overall proportion of personality disorders in the homeless (Bassuk et al., 1986; Salavera et al., 2013, 2014) and according to these studies, 64% to 79% of the participants presented a personality disorder. Another study, despite not reporting the overall proportion of personality disorders, found that 92% of the participants presented one of the DSM-IV-TR's Cluster A diagnoses (Connolly et al., 2008). If comparing the overall prevalence of personality disorders in the homeless reported by these studies with results from other studies excluded from this review due to the lack of assessment of at least three personality disorders, much more modest results would be found in the excluded articles. For example, two previous reviews reported rates of personality disorders to be between 23% and 29% (Fazel et al., 2008; Schreiter et al., 2017). The discrepancy between the studies included in this review and the remaining literature is probably multifactorial and may be associated with the contrasting inclusion criteria of the individual studies, the different size of the samples, the particular methods used to evaluate personality disorders (Connolly et al., 2008) and the low number of studies included in the present review.

The frequency of the individual personality disorders was highly variable between the studies included in this review. For example, schizoid personality disorder ranged from 3% to 65% in five studies (Ball et al., 2005; Bassuk et al., 1986; Connolly et al., 2008; Salavera et al., 2013, 2014), antisocial personality disorder ranged from 4% to 57% in six studies (Ball et al., 2005; Bassuk et al., 1986; Connolly et al., 2008; Salavera et al., 2013, 2014; Tsai, 2018), BPD was between 6% and 62% in five studies (Ball et al., 2005; Bassuk et al., 1986; Connolly et al., 2008; Salavera et al., 2013; Tsai, 2018) and dependent personality disorder fluctuated between 12% and 25% in five studies (Ball et al., 2005; Bassuk et al., 1986; Connolly et al., 2008; Salavera et al., 2013, 2014). Of all personality studies included in this review, Salavera et al (2013) was the one presenting more middle ranged values. Even so, when comparing the prevalence of personality disorders in their sample of homeless individuals with data from the general population and from clinical

samples, they still found a higher prevalence of personality disorders among their sample of homeless people.

Two articles, both from Salavera and colleagues (2013, 2014), found ASPD to be among the most frequent personality disorders. Given our inclusion criteria, several articles reporting solely on ASPD in the homeless were excluded from the present review (e.g. Caton et al., 1994; Crawford et al., 2011; Ferguson et al., 2015; Fletcher & Reback, 2017; Fond et al., 2019; Jainchill et al., 2000; McQuiston et al., 2014; North et al., 1993; North et al., 1997b; Nower et al., 2015; Quimby et al., 2012; Reback et al., 2007). When evaluating the frequency of ASPD in the homeless reported by these additional studies, a high variation can be found between studies, with values ranging from 10% to 66%. In spite of this diversity, most of the excluded studies reported values between 20% and 40%, which is in agreement with the values reported in the two studies of Salavera and colleagues (Salavera et al., 2013, 2014).

ASPD is not only a frequent diagnosis in the homeless, but also an important one. This personality disorder was found to be related with an earlier onset of homelessness, chronicity of homelessness, poorer utilization of homeless services and less positive outcomes after discharge (Caton, 1995; North et al., 1998; North et al., 1997a; Pollio et al., 1997). However, the fact that ASPD was not the most frequently identified personality disorder in all the six personality studies included in the present review highlights the importance of carefully evaluating the full range of DSM-IV-TR's Axis II disorders in the homeless.

The other most frequent personality disorders in the homeless according to the personality research reports included in this review were paranoid personality disorder, which accounted for  $\geq 73\%$  of the participants in two studies (Ball et al., 2005; Connolly et al., 2008), avoidant and obsessive-compulsive personality disorders, each accounting for  $> 50\%$  of the participants in two studies (Ball et al., 2005; Connolly et al., 2008) and BPD, which occurred in  $> 45\%$  of the participants in three studies (Ball et al., 2005; Connolly et al., 2008; Tsai, 2018).

The reports included in the present review focusing on personality in the homeless were mostly performed in middle aged adults. Since personality diagnoses may be more

prevalent in adolescents than in adults (Brennan & Shaver, 1998) higher rates of personality disorders might have been found in the homeless if younger samples had been tested.

Personality disorders can have an impact on treatment programs for the homeless. For example, in one study (Salavera et al., 2013) all patients presenting BPD or personality limit and passive disorder abandoned treatment, while patients with dependent personality disorder or self-destructive disorder had rates of abandonment of around 40%. Another study (Bassuk et al., 1986), in which the most frequent diagnosis was dependent personality disorder, found that several homeless mothers struggled to become autonomous. These mothers presented difficulties in holding jobs and in maintaining relationships with other adults and institutions.

Regarding attachment research reports, the approaches used to evaluate attachment in the homeless were highly diverse between studies, with only two out of eight studies (Kidd & Shahar, 2008; Rodríguez-Pellejero & Núñez, 2018) using the same method namely, the RQ. This translated into different qualities being coded in some studies, as is expected when different tests are used in attachment assessment (Westen et al., 2006).

Two studies showed the distribution of the different types of attachment in the homeless (Rodríguez-Pellejero & Núñez, 2018; Taylor-Seehafer et al., 2008). In one of these studies (Taylor-Seehafer et al., 2008), using the AAI instrument, none of the 25 participants presented a secure attachment style. In the other study (Rodríguez-Pellejero & Núñez, 2018), using an adaptation of the RQ instrument, only 38% of the 107 participants presented a secure type of attachment. Despite not showing the distribution of attachment styles, an additional report (Tavecchio et al., 1999), using the ASQ instrument, found that only 13% of their homeless sample was securely attached. Additionally, when comparing their homeless sample with a general population sample and a sample of residential youths, they found higher values for secure attachment in the comparison groups (33% and 23%, respectively). Higher prevalence of secure attachment was also found in other studies evaluating attachment in non-homeless adults (Ainsworth et al., 2014; Bakermans-Kranenburg & van IJzendoorn, 2009). The

lower values for secure attachment in the homeless found in the studies included in the present review may be related with higher rates of childhood trauma, childhood abuse and unresolved childhood situations, which are more frequent in the homeless than in the general population.

In the two studies showing the distribution of the different types of attachment in the homeless (Rodríguez-Pellejero & Núñez, 2018; Taylor-Seehafer et al., 2008) insecure attachment styles were differently distributed. While in the study of Taylor-Seehafer (2008) the most common attachment style was unresolved attachment (60%), in the study of Rodríguez-Pellejero and Núñez (2018), both dismissive-avoidant (22%) and fearful-avoidant (22%) were the most common types of attachment. These types of insecure attachment may be an obstacle to psychosocial rehabilitation, favoring homelessness chronicity (Rodríguez-Pellejero & Núñez, 2018).

Homeless people have impaired capacity to trust other people, authority figures and institutions, probably due to their early trauma experiences. For example, Munoz and colleagues (2019) found that even a single adverse childhood experience can lower trust in the medical profession. Stefanidis and colleagues (1992) reported that their subgroup of stabilization non-responsive homeless youths were mistrustful of close relationships and afraid of allowing themselves to rely on others. They also stated that this subgroup of homeless youths often rejected help from others in order to avoid being rejected. The provision of specific and timely supportive social networks to homeless youth can, however, prevent the generalization of the lack of trust created by past experiences, as stated in Tavecchio and Thomeer (1999). Additionally, homeless people are able to establish important relations with other homeless counterparts. For example, the study of Taylor-Seehafer and colleagues (2007) found a direct relationship of time being homeless and social connectedness. They related this finding with the fact that the street family or peer subgroup may provide important attachment experiences for homeless youth.

Some studies evaluated the factors leading to homelessness. Salavera and colleagues (2013) listed the following factors, in decreasing order of importance: additions, problems with family of origin, divorce, labor problems and psychological problems.

Parents' divorce and the lack of perceived parental responsiveness and emotional support were pointed as particularly important for the development of homelessness in the article of Tavecchio and Thomeer (1999). The study of Bassuk and colleagues (Bassuk et al., 1986), which evaluated personality disorders in homeless mothers, found that besides external factors (e.g. poverty), psychosocial factors, especially family breakdown, play an important role in family homelessness.

The seminal work by Bento and Barreto suggested that attachment disorder may have a role in the psychopathology of homeless people living with mental illness, probably in a transverse mode, independently of diagnose or comorbidity. As insecure attachment has been correlated with oxytocin disorders (Caicedo Mera et al., 2021), there might be a good opportunity for this hormone as a new type of psychopharmacological treatment in psychiatry (Buchheim et al., 2009; Marazziti et al., 2006; Martins et al., 2016). Bento and Barreto have been working with homeless people with mental illness, with different organizations, for a total number of years that together surpass the fifty years mark already. They are still writing scientific literature about mental illness among the homeless people, contributing to Portuguese studies (Monteiro Fernandes et al., 2021) and European guidelines (Barreto et al., 2019). Bento and Barreto could easily be considered our charismatic leaders who could bring people together and who held on to a vision, two of a kind of that homelessness needed champion especially in non-housing agencies such as the health authority (Pannel & Parry, 1999). Homeless patients living with severe psychiatric disorders in Portugal, like any part of the world, are usually super difficult patients (Gama Marques, 2021), with high somatic comorbidity (Gama Marques & Bento, 2020a), living in the streets, many times anonymous (Gama Marques & Bento, 2020b).

### **Limitations of the study**

The present review presents some limitations. For instance, the research reports included in this review do not allow generalization. The samples were considerably small in some studies, and the variables were highly diverse between the studies focusing on attachment. We also noted that the age groups of the participants differed greatly between attachment and personality studies. While most of the attachment studies

were performed in adolescents, most personality studies were done in adults with an average age of 40 years. An important limitation is that among the six studies evaluating personality in the homeless, two teams contributed with two articles each. To avoid overrepresentations, ideally all studies should have been performed by different research groups.

## **Conclusions**

The present review revealed there is scarce literature evaluating attachment and personality disorders in the homeless and supports the need for more research focusing on these two topics in homeless populations. Despite the few available studies published in English, we noticed several references were made to articles published in other languages. Perhaps, more effort could be made to make such studies more widely accessible.

Overall, the studies presented in this review suggest that homeless people suffer from high rates of several personality disorders and are mostly characterized by insecure types of attachment. These traits can be an obstacle for treatment intervention strategies and should be considered in advance when planning strategies are made to help the homeless.

## REFERENCES

- Afifi, T. O., Fortier, J., Sareen, J., & Taillieu, T. (2019). Associations of Harsh Physical Punishment and Child Maltreatment in Childhood With Antisocial Behaviors in Adulthood. *JAMA Network Open*, 2(1), e187374.  
<https://doi.org/10.1001/jamanetworkopen.2018.7374>
- Ainsworth, M., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment: A Psychological Study of the Strange Situation*. Oxford, UK: Lawrence Erlbaum.
- Ainsworth, M., Blehar, M., Waters, E., & Wall, S. (2014). *Patterns of attachment: A psychological study of the strange situation*. New York, NY: Psychology Press.
- Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (2009). The first 10,000 Adult Attachment Interviews: Distributions of adult attachment representations in clinical and non-clinical groups. *Attachment & Human Development*, 11(3), 223–263. <https://doi.org/10.1080/14616730902814762>
- Ball, S. A., Cobb-Richardson, P., Connolly, A. J., Bujosa, C. T., & O’Neill, T. W. (2005). Substance abuse and personality disorders in homeless drop-in center clients: Symptom severity and psychotherapy retention in a randomized clinical trial. *Comprehensive Psychiatry*, 46(5), 371–379.  
<https://doi.org/10.1016/j.comppsy.2004.11.003>
- Barreto, E. (2002). Vinculação e relações de objecto dos sem-abrigo: Um estudo exploratório. In Bento A, Barreto E, Eds. *Sem-Amor Sem-Abrigo*. (p. 182). Lisboa: Climepsi Editores.
- Barreto, E., Bento, A., Leonori, L., Raimondi, S., Timms, P., Ryckmans, P., & Brandt, P. (2019). *Dignity and Well-Being: Practical Approaches to Working with Homeless People with Mental Health Problems*. Lisboa: European Union.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226–244. <https://doi.org/10.1037/0022-3514.61.2.226>

- Bassuk, E. L., Rubin, L., & Lauriat, A. S. (1986). Characteristics of sheltered homeless families. *American Journal of Public Health, 76*(9), 1097–1101.  
<https://doi.org/10.2105/ajph.76.9.1097>
- Bowlby, J. (1969). *Attachment and Loss: Vol. 1: Attachment*. London, UK: Hogarth Press/Institute of Psychoanalysis.
- Brennan, K. A., & Shaver, P. R. (1998). Attachment Styles and Personality Disorders: Their Connections to Each Other and to Parental Divorce, Parental Death, and Perceptions of Parental Caregiving. *Journal of Personality, 66*(5), 835–878.  
<https://doi.org/10.1111/1467-6494.00034>
- Buchheim, A., Heinrichs, M., George, C., Pokorny, D., Koops, E., Henningsen, P., O'Connor, M.-F., & Gündel, H. (2009). Oxytocin enhances the experience of attachment security. *Psychoneuroendocrinology, 34*(9), 1417–1422.  
<https://doi.org/10.1016/j.psyneuen.2009.04.002>
- Caicedo Mera, J. C., Cárdenas Molano, M. A., García López, C. C., Acevedo Triana, C., & Martínez Cotrina, J. (2021). Discussions and perspectives regarding oxytocin as a biomarker in human investigations. *Heliyon, 7*(11), e08289.  
<https://doi.org/10.1016/j.heliyon.2021.e08289>
- Caton, C. L. (1995). Mental health service use among homeless and never-homeless men with schizophrenia. *Psychiatric Services (Washington, D.C.), 46*(11), 1139–1143. <https://doi.org/10.1176/ps.46.11.1139>
- Caton, C. L., Shrout, P. E., Eagle, P. F., Opler, L. A., & Felix, A. (1994). Correlates of comorbidities in homeless and never homeless indigent schizophrenic men. *Psychological Medicine, 24*(3), 681–688.  
<https://doi.org/10.1017/s0033291700027835>
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology, 58*(4), 644–663. <https://doi.org/10.1037/0022-3514.58.4.644>

- Connolly, A. J., Cobb-Richardson, P., & Ball, S. A. (2008). Personality Disorders in Homeless Drop-In Center Clients. *Journal of Personality Disorders, 22*(6), 573–588. <https://doi.org/10.1521/pedi.2008.22.6.573>
- Crawford, D. M., Trotter, E. C., Hartshorn, K. J. S., & Whitbeck, L. B. (2011). Pregnancy and mental health of young homeless women. *American Journal of Orthopsychiatry, 81*(2), 173–183. <https://doi.org/10.1111/j.1939-0025.2011.01086.x>
- Fazel, S., Khosla, V., Doll, H., & Geddes, J. (2008). The Prevalence of Mental Disorders among the Homeless in Western Countries: Systematic Review and Meta-Regression Analysis. *PLoS Medicine, 5*(12), e225. <https://doi.org/10.1371/journal.pmed.0050225>
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine, 14*(4), 245–258. [https://doi.org/10.1016/s0749-3797\(98\)00017-8](https://doi.org/10.1016/s0749-3797(98)00017-8)
- Ferguson, K. M., Bender, K., & Thompson, S. J. (2015). Gender, coping strategies, homelessness stressors, and income generation among homeless young adults in three cities. *Social Science & Medicine, 135*, 47–55. <https://doi.org/10.1016/j.socscimed.2015.04.028>
- First, M., & Gibbon, M. (2004). The structured clinical interview for DSM-IV axis I disorders (SCID-I) and the structured clinical interview for DSM-IV axis II disorders (SCID-II). In M. Hilsenroth, & D. L. Segalaniel (Eds.), *Comprehensive handbook of psychological assessment: Vol. 2 Personality assessment* (p. 134–143). Hoboken, NJ: Wiley.
- Flaherty, J. A., Gaviria, F. M., & Pathak, D. S. (1983). The measurement of social support: The Social Support Network Inventory. *Comprehensive Psychiatry, 24*(6), 521–529. [https://doi.org/10.1016/0010-440x\(83\)90019-6](https://doi.org/10.1016/0010-440x(83)90019-6)

- Fletcher, J. B., & Reback, C. J. (2017). Mental health disorders among homeless, substance-dependent men who have sex with men: Prevalence of comorbidity among MSM. *Drug and Alcohol Review, 36*(4), 555–559.  
<https://doi.org/10.1111/dar.12446>
- Fond, G., Boyer, L., Boucekine, M., Girard, V., Loubière, S., Lenoir, C., Auquier, P., & Tinland, A. (2019). Illness and drug modifiable factors associated with violent behavior in homeless people with severe mental illness: Results from the French Housing First (FHF) program. *Progress in Neuro-Psychopharmacology and Biological Psychiatry, 90*, 92–96.  
<https://doi.org/10.1016/j.pnpbp.2018.11.006>
- Gama Marques, J. (2021). Super Difficult Patients with Mental Illness: Homelessness, Marontology and John Doe Syndrome. *Acta Médica Portuguesa, 34*(4), 314.  
<https://doi.org/10.20344/amp.15868>
- Gama Marques, J., & Bento, A. (2020a). Marontology: Comorbidities of Homeless People Living with Schizophrenia. *Acta Médica Portuguesa, 33*(4), 292.  
<https://doi.org/10.20344/amp.13561>
- Gama Marques, J., & Bento, A. (2020b). Homeless, nameless and helpless: John Doe syndrome in treatment resistant schizophrenia. *Schizophrenia Research, 224*, 183–184. <https://doi.org/10.1016/j.schres.2020.08.027>
- Grant, B. F., Goldstein, R. B., Smith, S. M., Jung, J., Zhang, H., Chou, S. P., Pickering, R. P., Ruan, W. J., Huang, B., Saha, T. D., Aivadyan, C., Greenstein, E., & Hasin, D. S. (2015). The Alcohol Use Disorder and Associated Disabilities Interview Schedule-5 (AUDADIS-5): Reliability of substance use and psychiatric disorder modules in a general population sample. *Drug and Alcohol Dependence, 148*, 27–33. <https://doi.org/10.1016/j.drugalcdep.2014.11.026>
- Hall, M. A., Zheng, B., Dugan, E., Camacho, F., Kidd, K. E., Mishra, A., & Balkrishnan, R. (2002). Measuring Patients' Trust in their Primary Care Providers. *Medical*

- Care Research and Review*, 59(3), 293–318.  
<https://doi.org/10.1177/1077558702059003004>
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511–524.  
<https://doi.org/10.1037//0022-3514.52.3.511>
- Herman, D. B., Susser, E. S., Struening, E. L., & Link, B. L. (1997). Adverse childhood experiences: Are they risk factors for adult homelessness? *American Journal of Public Health*, 87(2), 249–255. <https://doi.org/10.2105/AJPH.87.2.249>
- Hossain, M. M., Sultana, A., Tasnim, S., Fan, Q., Ma, P., McKyer, E. L. J., & Purohit, N. (2020). Prevalence of mental disorders among people who are homeless: An umbrella review. *International Journal of Social Psychiatry*, 66(6), 528–541.  
<https://doi.org/10.1177/0020764020924689>
- Jainchill, N., Hawke, J., & Yagelka, J. (2000). Gender, Psychopathology, and Patterns of Homelessness Among Clients in Shelter-Based TCs. *The American Journal of Drug and Alcohol Abuse*, 26(4), 553–567. <https://doi.org/10.1081/ADA-100101895>
- Kidd, S., & Shahar, G. (2008). Resilience in homeless youth: The key role of self-esteem. *The American Journal of Orthopsychiatry*, 78(2), 163–172.  
<https://doi.org/10.1037/0002-9432.78.2.163>
- Koegel, P. (1988). The Prevalence of Specific Psychiatric Disorders Among Homeless Individuals in the Inner City of Los Angeles. *Archives of General Psychiatry*, 45(12), 1085. <https://doi.org/10.1001/archpsyc.1988.01800360033005>
- Koegel, P., Melamid, E., & Burnam, m A. (1995). Childhood risk factors for homelessness among homeless adults. *American Journal of Public Health*, 85(12), 1642–1649. <https://doi.org/10.2105/AJPH.85.12.1642>
- Llanero-Luque, M., J M, R.-S. de L., Pedrero-Pérez, E. J., Olivar-Arroyo, A., Bouso-Saiz, J. C., Rojo-Mota, G., & Puerta-García, C. (2008). [Dysexecutive symptoms in substance abusers under treatment using the Spanish version of

- the dysexecutive questionnaire (DEX-Sp)]. *Revista De Neurologia*, 47(9), 457–463.
- Lorenzini, N., & Fonagy, P. (2013). Attachment and Personality Disorders: A Short Review. *FOCUS*, 11(2). <https://doi.org/10.1176/appi.focus.11.2.155>
- Marazziti, D., Dell'Osso, B., Baroni, S., Mungai, F., Catena, M., Rucci, P., Albanese, F., Giannaccini, G., Betti, L., Fabbrini, L., Italiani, P., Del Debbio, A., Lucacchini, A., & Dell'Osso, L. (2006). A relationship between oxytocin and anxiety of romantic attachment. *Clinical Practice and Epidemiology in Mental Health*, 2(1), 28. <https://doi.org/10.1186/1745-0179-2-28>
- Martins, D., Paloyelis, Y., & Prata, D. (2016). “Shedding light on a dark question”: Peripheral oxytocin signalling and neurobehavioral responses to intranasal oxytocin in humans. *Psychoneuroendocrinology*, 73, 271–272. <https://doi.org/10.1016/j.psyneuen.2016.08.008>
- McLellan, A. T., Kushner, H., Metzger, D., Peters, R., Smith, I., Grissom, G., Pettinati, H., & Argeriou, M. (1992). The fifth edition of the addiction severity index. *Journal of Substance Abuse Treatment*, 9(3), 199–213. [https://doi.org/10.1016/0740-5472\(92\)90062-S](https://doi.org/10.1016/0740-5472(92)90062-S)
- McQuiston, H. L., Gorroochurn, P., Hsu, E., & Caton, C. L. M. (2014). Risk Factors Associated with Recurrent Homelessness After a First Homeless Episode. *Community Mental Health Journal*, 50(5), 505–513. <https://doi.org/10.1007/s10597-013-9608-4>
- Millon, T. (1997). *MCMI-II: Inventario Clínico Multiaxial de Millon* (2º ed). Madrid: TEA Ediciones.
- Monteiro Fernandes, A., Gama Marques, J., Bento, A., & Telles-Correia, D. (2021). Mental illness among 500 people living homeless and referred for psychiatric evaluation in Lisbon, Portugal. *CNS Spectrums*, 1–10. <https://doi.org/10.1017/S1092852921000547>

- Munoz, R. T., Hanks, H., Brahm, N. C., Miller, C. R., McLeod, D., & Fox, M. D. (2019). Adverse Childhood Experiences and Trust in the Medical Profession among Young Adults. *Journal of Health Care for the Poor and Underserved, 30*(1), 238–248. <https://doi.org/10.1353/hpu.2019.0018>
- Nakash-Eisikovits, O., Dutra, L., & Westen, D. (2002). Relationship Between Attachment Patterns and Personality Pathology in Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 41*(9), 1111–1123. <https://doi.org/10.1097/00004583-200209000-00012>
- North, C. S., Pollio, D. E., Smith, E. M., & Spitznagel, E. L. (1998). Correlates of Early Onset and Chronicity of Homelessness in a Large Urban Homeless Population: *The Journal of Nervous & Mental Disease, 186*(7), 393–400. <https://doi.org/10.1097/00005053-199807000-00002>
- North, C. S., Pollio, D. E., Thompson, S. J., Ricci, D. A., Smith, E. M., & Spitznagel, E. L. (1997a). A comparison of clinical and structured interview diagnoses in a homeless mental health clinic. *Community Mental Health Journal, 33*(6), 531–543. <https://doi.org/10.1023/a:1025052720325>
- North, C. S., Smith, E. M., & Spitznagel, E. L. (1993). Is antisocial personality a valid diagnosis among the homeless? *The American Journal of Psychiatry, 150*(4), 578–583. <https://doi.org/10.1176/ajp.150.4.578>
- North, C. S., Thompson, S. J., Pollio, D. E., Ricci, D. A., & Smith, E. M. (1997b). A diagnostic comparison of homeless and nonhomeless patients in an urban mental health clinic. *Social Psychiatry and Psychiatric Epidemiology, 32*(4), 236–240. <https://doi.org/10.1007/BF00788244>
- Nower, L., Eyrich-Garg, K. M., Pollio, D. E., & North, C. S. (2015). Problem Gambling and Homelessness: Results from an Epidemiologic Study. *Journal of Gambling Studies, 31*(2), 533–545. <https://doi.org/10.1007/s10899-013-9435-0>
- Pannel, J., & Parry, S. (1999). Implementing 'joined-up thinking': Multiagency services for single homeless people in Bristol. In *Kennet P, Marsh A (Eds)*.

- Homelessness: Exploring the new terrain.* (p. 247). Bristol: Bristol University Press.
- Parker, G., Tupling, H., & Brown, L. B. (1979). A Parental Bonding Instrument. *British Journal of Medical Psychology*, 52(1), 1–10. <https://doi.org/10.1111/j.2044-8341.1979.tb02487.x>
- Pollio, D. E., North, C. S., Thompson, S., Paquin, J. W., & Spitznagel, E. L. (1997). Predictors of achieving stable housing in a mentally ill homeless population. *Psychiatric Services (Washington, D.C.)*, 48(4), 528–530. <https://doi.org/10.1176/ps.48.4.528>
- Quimby, E. G., Edidin, J. P., Ganim, Z., Gustafson, E., Hunter, S. J., & Karnik, N. S. (2012). Psychiatric Disorders and Substance Use in Homeless Youth: A Preliminary Comparison of San Francisco and Chicago. *Behavioral Sciences*, 2(3), 186–194. <https://doi.org/10.3390/bs2030186>
- Reback, C. J., Kamien, J. B., & Amass, L. (2007). Characteristics and HIV risk behaviors of homeless, substance-using men who have sex with men. *Addictive Behaviors*, 32(3), 647–654. <https://doi.org/10.1016/j.addbeh.2006.06.008>
- Rhee, T. G., & Rosenheck, R. A. (2020). Why are black adults over-represented among individuals who have experienced lifetime homelessness? Oaxaca-Blinder decomposition analysis of homelessness among US male adults. *Journal of Epidemiology and Community Health*, jech-2020-214305. <https://doi.org/10.1136/jech-2020-214305>
- Riggs, S., Jacobvitz, D., & Hazen, N. (2002). Adult attachment and history of psychotherapy in a normative sample. *Psychotherapy*, 39(4). <https://doi.org/10.1037/0033-3204.39.4.344>
- Rodríguez-Pellejero, J. M., & Núñez, J. L. (2018). Relationship between attachment and executive dysfunction in the homeless. *Social Work in Health Care*, 57(2), 67–78. <https://doi.org/10.1080/00981389.2017.1344754>

- Rosenstein, D. S., & Horowitz, H. A. (1996). Adolescent attachment and psychopathology. *Journal of Consulting and Clinical Psychology, 64*(2), 244–253. <https://doi.org/10.1037/0022-006X.64.2.244>
- Salavera, C., Antoñanzas, J., Bustamante, J., Carrón, J., Usán, P., Teruel, P., Bericat, C., Monteagudo, L., Larrosa, S., Tricás, J. M., Lucha, O., Noé, R., Jarie, L., & Cerra, R. (2014). Comorbidity of attention deficit hyperactivity disorder with personality disorders in homeless people. *BMC Research Notes, 7*(1), 916. <https://doi.org/10.1186/1756-0500-7-916>
- Salavera, C., Tricás, & Lucha. (2013). Personality disorders and treatment drop out in the homeless. *Neuropsychiatric Disease and Treatment, 3*79. <https://doi.org/10.2147/NDT.S38677>
- Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). Assessing social support: The Social Support Questionnaire. *Journal of Personality and Social Psychology, 44*(1), 127–139. <https://doi.org/10.1037/0022-3514.44.1.127>
- Schreiter, S., Bempohl, F., Krausz, M., Leucht, S., Rössler, W., Schouler-Ocak, M., & Gutwinski, S. (2017). The Prevalence of Mental Illness in Homeless People in Germany. *Deutsches Ärzteblatt international*. <https://doi.org/10.3238/arztebl.2017.0665>
- Stefanidis, N., Pennbridge, J., MacKenzie, R. G., & Pottharst, K. (1992). Runaway and homeless youth: The effects of attachment history on stabilization. *American Journal of Orthopsychiatry, 62*(3), 442–446. <https://doi.org/10.1037/h0079343>
- Stein, J. A., Milburn, N. G., Zane, J. I., & Rotheram-Borus, M. J. (2009). Paternal and maternal influences on problem behaviors among homeless and runaway youth. *The American Journal of Orthopsychiatry, 79*(1), 39–50. <https://doi.org/10.1037/a0015411>
- Tavecchio, L., Thomeer, M., & Meeus, W. (1999). Attachment, social network and homelessness in young people. *Social Behavior and Personality: An international journal, 27*(3), 247–262. <https://doi.org/10.2224/sbp.1999.27.3.247>

- Taylor-Seehafer, M., Jacobvitz, D., & Steiker, L. H. (2008). Patterns of Attachment Organization, Social Connectedness, and Substance Use in a Sample of Older Homeless Adolescents: Preliminary Findings. *Family & Community Health*, 31(Supplement 1), S81–S88.  
<https://doi.org/10.1097/01.FCH.0000304021.05632.a1>
- Taylor-Seehafer, M., Johnson, R., Rew, L., Fouladi, R. T., Land, L., & Abel, E. (2007). Attachment and Sexual Health Behaviors in Homeless Youth. *Journal for Specialists in Pediatric Nursing*, 12(1). <https://doi.org/10.1111/j.1744-6155.2007.00087.x>
- Tsai, J. (2018). Lifetime and 1-year prevalence of homelessness in the US population: Results from the National Epidemiologic Survey on Alcohol and Related Conditions-III. *Journal of Public Health*, 40(1), 65–74.  
<https://doi.org/10.1093/pubmed/fox034>
- Weinert, C. (1987). A social support measure: PRQ85. *Nursing Research*, 36(5), 273–277.
- Westen, D., Nakash, O., Thomas, C., & Bradley, R. (2006). Clinical assessment of attachment patterns and personality disorder in adolescents and adults. *Journal of Consulting and Clinical Psychology*, 74(6), 1065–1085.  
<https://doi.org/10.1037/0022-006X.74.6.1065>
- Yáñez-Yaben, S., & Comino, P. (2011). Evaluación del apego adulto: Análisis de la convergencia entre diferentes instrumentos [Assessment of adult attachment: Analysis of the convergence between different instruments]. *Acción Psicológica*, 8(2), 67–85. <https://doi.org/10.5944/ap.8.2.191>

