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A systematic review on the association among homelessness, delinquency and mental health

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ABSTRACT

In the present project a systemic review was carried out to try to reveal if the is an association among three variables: "homelessness", "delinquency", and "mental health". First and foremost, it was imperative to find out if this was already a subject of investigation and if so, which conclusions were more persistent. Later, and with a carefully constructed algorithm applied to the PubMed data base, a number of already existing investigations were selected to analyze. Once the literature was selected it was time to filter through and see which one were going to serve the objective of this project, by which criteria of inclusion and exclusion were developed in order to be able to easily remove those that were not going to be of use. Finally with the articles read, conclusions were extracted in order to create a proper answer to the question "Is there an association among homelessness, delinquency and mental health?".

Key Words: homelessness, delinquency, mental health, systemic review, substance abuse.

ABSTRACT

En el present projecte s'ha dut a terme una revisió sistemàtica per saber si existeix una associació entre tres variables: "sense sostre", "delinqüència" i "salut mental". Primerament, era imperatiu que es busqués si ja hi havia investigacions al respecte i, en cas que sí, conèixer com s'havia tractat el tema i quines eren les conclusions establertes. Després es va construir amb un algoritme que pogués ser útil per trobar els articles que resultessin més adients per l'estudi. Un cop es va seleccionar la literatura que es tractaria es van desenvolupar criteris d'inclusió i exclusió per tal de poder descartar tots aquells articles que no aportessin informació suficient per l'objectiu del projecte.

Finalment, un cop llegits els articles es van desenvolupar conclusions discutint els resultats d'aquelles investigacions prèviament realitzades i es va desenvolupar una conclusió pròpia.

Paraules clau: sense sostre, delinqüència, salut mental, revisió sistemàtica, abús de substàncies.

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1. Specifying the theme

The media coverage of violent incidents frequently depicts homeless individuals with severe mental illness as either victims or perpetrators of crime. These events continuously bring public attention to the complex interplay between homelessness, severe mental illness, violence, criminal justice involvement, and victimization. (Roy, L., Crocker, A, Nicholls, T., Latimer, E., Ayllon, A, 2014). Therefore, the public image of homelessness usually comes hand in hand with negative connotation such as criminality and mental illness.

There are many investigations that have analyzed the homeless population and have been descriptive on the most persistent factors and characteristics in those collectives. As seen by Fazel, Khosla, Doll and Geddes (2008) the prevalence of psychotic illnesses and personality disorders are higher in homeless people in Western countries.

As well as that, the homeless community also have been strongly identified as delinquents and many investigations have shown the relationship between both variables and many others that can explain the decision to commit certain disruptive behaviors. Like we see in Burton, Pollio and North (2018) previous research suggests that association between homelessness and crime is, at least, partially secondary to homeless status offenses (such as vagrancy and trespassing resulting from behaviors intrinsic to homelessness). At baseline, homeless status offenses were the most frequently reported charges and were the only type of crime for which charges were incurred more frequently in the homeless condition. Therefore, these findings suggest that homelessness itself is linked to criminal behavior through homeless status offenses.

In this investigation we will have in consideration the fact that homelessness and mental health are strongly connected as well as the fact that homelessness and disruptive behavior are connected as well. Nonetheless, we will be looking into the relationship that all three have among each other and the effect they have and in what measure.

2. Theoretical Frame

2.1.Present situation

The studies regarding mental health, homelessness and disruptive behavior have been conducted for years, investigations dating back to the mid twentieth century. Many have tried to stablish the causality between a wide number of variables but these three have always shown up persistently along the way. Many studies have reported high prevalence of various health problems among the homeless. Serious physical morbidity, such as tuberculosis and HIV, contributes to an increased age-standardized mortality rate of three to four times that in the general population (Fazel, Khosla, Doll and Geddes, 2008). While doing the preliminary search of literature it has been apparent that there are not many systematic reviews regarding these three variables. Nonetheless, there are many studies that point out the correlation, among the three, without going in much depth into the reason behind it.

Regardless of how big the volume of literature is, there are still inconsistencies and contradictory findings, which make it the more challenging for direct care providers and advocates to determine priorities (Laurence, Crocker, Nicholls, Latimer and Ayllon, 2014). As well as that, many of these reviews and surveys have been conducted in western countries, therefore lacking a sense of general consensus on the general problem of homelessness as a health concern. Very few investigations have been focused on European population, mostly it has been concentrated on the North and South America population.

It has been found that apart from contributing to increased rates of mortality, including from suicide and drug abuse, the presence of serious mental disorders in the homeless is likely to contribute to increased rates of violent victimization, criminality, and longer periods of homelessness. And in regard to these, the general and consensuated idea is that health care should have mental health in this collective very present and have an appropriate plan of action. As Fazel, Khosla, Doll and Geddes (2008) explain it, the provision of good mental health care would therefore reduce psychiatric morbidity and have other public health benefits. Thus, current mental health provision may need review, and models of psychiatric and social care that can best meet the burden of mental illness will need further investigation.

On another note, there is also a persistent link between homeless people who suffer of a mental illness and the criminal justice system, as many studies have shown that homeless individuals with severe mental illness seem to be arrested more often than their stably housed counterparts

(Laurence, Crocker, Nicholls, Latimer and Ayllon, 2014). As they also make very clear on their study, no matter how many studies have been conducted, the problem remains the same we must consider still the challenge of drawing comparisons across studies that used different definitions of mental illness and different measures of criminal justice involvement and that had various other methodological differences (such as use of self-report data versus data from administrative records). So this study will present a clear frame in which the revision will develop and which terms will be included and excluded in order to review the best results.

2.2.Concept definition

Before we start the analysis, we will have to properly understand the concepts surrounding it. Therefore, in order to understand about what we are referring while talking about the relation between homelessness, disruptive behaviors and mental health we have to properly frame these terms.

Firstly, we have the term "homelessness". The definition seems pretty straightforward as the word says itself, it stands for absence of accommodation (Mabhala, Yohannes and Griffith, 2017), therefore we'll understand it as the pathways people take on developing their life course without having a home.

When talking about home we'll have to take into consideration the fact that these people may find a refuge in a hostel, an abandoned house or even in a cheap pension, nonetheless, we won't take that into account, because these places do not belong to them and are a solution to their problem only for a short period of time. As Vega (1996) defines it a home is a place where you organize your life story and project of life (cited by Vázquez, 2011).

As Ortiz (2003) said two aspects have to concur in order to be qualified as a homeless person, firstly the absence of proper accommodation (regarding space and conditions of habitation) and stable (regarding sustainable economically, safe, not dangerous). Secondly, the loss of social bonds, vital references and safe supports. Marginalization, as well as self-stigmatization and isolation are also important elements for the idea of home, physical and emotional, in order for people to grow and develop themselves (Vázquez, 2011).

Secondly, we have the concept "disruptive behavior", defined by APA (2020) as a behavior that chronically threatens and intimidates or violates others or social forms. This concept will refer to

any conduct that defers from the correct way of acting, according to socially accepted behavior and legal conducts.

As well as that, it will also be considered any behavioral problems presented as "delinquency", this meaning any survival strategies developed during homelessness (Robert, Pauzé and Fournier, 2005). While talking about "delinquency" or "crime" according to Matjin and Sharpe (2005) it will be defined as participation in criminal activity resulting in police involvement and thus in charges laid (Matjin and Sharpe, 2005).

Thirdly, there is the widely discussed concept of "mental health", which seems to bring certain concerns when framing it. For one we have "mental health" described by the WHO (2018) as a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community. Therefore, mental health stands for the absence of mental disorders, generally characterized by a combination of abnormal thoughts, perceptions, emotions, behaviour and relationships with others (WHO, 2019). When talking about mental disorders we have to take into account them both, the ones internalized (such as general anxiety and depression) and externalized (such as behavioral and oppositional disorders) (Robert, Pauzé and Fournier, 2005). Nonetheless many authors have expressed their disapproval to this definition, not because it is wrong but because it does not quite encapsulate the concept fully. One of these authors being Keyes (cited by Galderisi, Heinz, Kastrup, Beezhold and Sartorius, 2017) says that the WHO's definition focuses on the well-being, which includes includes emotional, psychological and social well-being, and involves positive feelings, positive attitudes towards own responsibilities and towards others, and positive functioning. Hence, these authors propose a new conceptualizing of the term "mental health" that tries to adopt a universal perspective on the important key ideas. Thus, they present the following definition: "Mental health is a dynamic state of internal equilibrium which enables individuals to use their abilities in harmony with universal values of society. Basic cognitive and social skills; ability to recognize, express and modulate one's own emotions, as well as empathize with others; flexibility and ability to cope with adverse life events and function in social roles; and harmonious relationship between body and mind represent important components of mental health which contribute, to varying degrees, to the state of internal equilibrium" (Galderisi, Heinz, Kastrup, Beezhold and Sartorius, 2017).

While in this project we will be mostly talking about mental health, we must understand the fact that in our case, the probability of appearance of mental disorders is high. Therefore, that concept must be explained as well. According to The American Psychiatric Association, in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) a mental disorder considers 5 factors: (1) A behavioral or psychological syndrome or pattern that occurs in an individual; (2) Reflects an underlying psychobiological dysfunction; (3) The consequences of which are clinically significant distress (e.g., a painful symptom) or disability (i.e., impairment in one or more important areas of functioning); (4) Must not be merely an expected response to common stressors and losses (ex. the loss of a loved one) or a culturally sanctioned response to a particular event (ex. trance states in religious rituals); (5) Primarily a result of social deviance or conflicts with society. In order to assess if a person has or has not a mental disorder these will be the criteria followed to diagnose it.

2.3. Epidemiologic Data.

2.3.1. Gender

In mental health, many studies have tried to separate the effects on men and women in order to have a broader idea of how it affects each person. Some studies have shown that in homeless population major depression is a prevalent mental illness, nonetheless, there is more women that suffer from it, compared to men (Fazel, Khosla, Doll and Geddes, 2008).

In the same line, in 2014, Roy, Crocker, Nicholls, Latimer and Ayllon conducted a study of homeless young women, 66.2% met criteria for a lifetime diagnosis of antisocial personality disorder. Although the proportionate excess for psychosis was greater than for the other mental disorders, this review found that the main mental health problem for homeless persons is alcohol dependence, which ranged from 8% to 58%. On average, this is many orders of magnitude higher in men and even higher in women compared with community surveys.

One of the prevalent points in Roy, Crocker, Nicholls, Latimer and Ayllon (2014) systemic review was that criminal behavior and contacts with the justice system had higher rates in male subjects, rather than female. On the other hand, women were much more likely to suffer victimization rather than men. This seems to be the same case in the Tyler, Kort-Butler and Swendener (2014) in which they find that men have more criminal offenses and higher drug usage.

Generally, men are a greater number of the homeless population, nonetheless, there is a consensus that the concerns of women have been underrepresented in the literature on homeless populations (North and Smith, 1993). In the existing literature of homeless population, the fact that men are more likely to become homeless is very much research, but it's the why that still has to be answered. Some studies have found that compared to homeless men, homeless women are younger, better educated, more likely to be caring for dependent children, more likely to be on welfare and less often below the poverty line, and less likely to have a history of arrest or jail (North and Smith, 1993). If we check the latest collected data from INE (2012), man comprehend the 80% of the total homeless population.

2.3.2. Homelessness

There have been many investigations regarding the homeless population and their conditions of living, in order to find a way of improving their situation. Some of them focus solely on being aware of the situation in a certain place, meaning, knowing how many people have been living in the streets in a certain place and time. Other, try to find reasoning behind it and guide a possible intervention to prevent further development.

One of these is the FEANTSA and the Foundation Abbé Pierre, that for the past five years have been gathering information on the homelessness situation in the EU. As of the year 2020, they estimate that 700,000 homeless people are currently sleeping rough or living in emergency or temporary accommodation across the European Union. This is a 70% increase in the space of ten years (FEANTSA and the Foundation Abbé Pierre, 2020, pp. 11).

One in ten households spent over 40% of their income on excessive housing costs in the EU in 2018. 15.5% of households lived in overcrowded conditions, 13.9% lived in damp housing, 4% experienced severe housing deprivation, with unfit housing conditions remaining a harsh reality for those exposed to them, particularly in Eastern European countries.

If we focus in one country specifically, in Spain, in the year 2018 data showed that 52% of homelessness in Spain is of people from third countries (in Spain, these would be Canaries, Ceuta and Melilla).

Spain is one of the four highest countries in the EU where there are prevalent numbers on housing exclusion regarding these 5 variables (Severe housing, Deprivation, Rent/mortgage arrears, Inability to keep home adequately warm, Overcrowding, Housing cost overburden; these last two

being the highest) (figure 1). On the report from 2018 they estimated a total population in 46,658,447 people (on January 1st), the number of homeless people were estimated between 23,000 and 35,000, with the percentage of poor households being 21,5% (Eurostat / EUSILC 2018 & FEANTSA fifth overview).

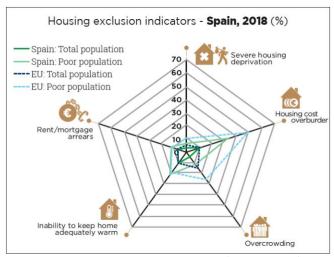


Figure1: Housing exclusion indicators (Spain, 2018)

2.3.3. Mental health and Homelessness

The relation between homelessness and mental health has been studied numerous times and has a strong base when saying that they indeed have a correlation. Several estimates indicate that between 20% and 50% of homeless adults have a severe mental illness (Roy, Crocker, Nicholls, Latimer and Ayllon, 2014).

In a more detailed study Fazel, Khosla, Doll and Geddes (2008) said that:

diagnoses of psychosis range from 2% to 31%, depression from 4% to 41%, and personality disorder from 3% to 71%. Furthermore, the closure of large psychiatric institutions, the shortage of low-cost housing, and a lack of community-based supports and services over the past few decades is thought to have contributed to increasing homelessness among people with mental illness, with resulting increased levels of psychiatric morbidity amongst homeless people. With the continued reduction in the numbers of inpatient psychiatric beds, the number and proportion of mentally disordered homeless persons is anticipated to increase further (pp. 1671).

According to a report carried out by INE in 2018, as cited in the FEANTSA and the Foundation Abbé Pierre report (2020) in 2018, on support services for the homeless on average 18,001 people

attended accommodation and day reception services every day (9.5% increase compared to 2016). According to the same data, "53% of the homeless reported having mental health problems, and 22%, physical health problems" (pp. 120).

2.3.4. Criminal activity and Homelessness

There is a general idea that the homeless population are likely to offend. One way or another the homeless are tied to criminal activity. Nonetheless there have been many studies that have tried to compare the criminality rates from the homeless and the general population and many have agreed that the situation calls for a more in-depth look. Some have discussed the idea that whilst the arrest rates are higher in the homeless population, the majority of these offenses are homeless status offenses¹. Following the same idea, in the Snow, Baker and Anderson (1989) the general male population have less arrests compared to the homeless male population, because these last ones are more prone to public intoxication, followed by theft/shoplifting, violation of city ordinances, and burglary. Overall, the findings also point out the idea that the more you are on the streets the more likely you are to offend, and they add the variable of mental health as a risk factor or protective factor as it can help avoid deviance.

There have been studies that compare the population of street homeless and shelter homeless, in which the general idea is that it has no big difference in non-violent offences between these two. Nonetheless, on violent offences the ones bouncing from shelter to shelter had higher rates of violent crimes such as robbery and assault. They discussed that the stress of living close to other very stressed individuals in similar situations can lead to conflict and violence (Pierce, 2009).

2.3.5. Association among homeless, mental health and behavior variables

There are very few systemic reviews including all three variables, nonetheless there are some that can give a general concept of the relation between two of them. For example, there is the Tyler, Kort-Butler and Swendener (2014) systemic review that tries to analyze if protective factors must be present in people's lives in order to have better chances at not deviating from a normative behavior, regardless of their mental state. Regarding the variables earlier mention their hypothesis

¹ As said by Burton, Pollio and North (2018) these would be for example vagrancy and trespassing resulting from behaviors intrinsic to homelessness.

that was the following "Those with higher levels of depressive symptoms and PTSD (post-traumatic stress disorder) will be more likely to engage in illegal behaviors, and these symptoms will mediate the relationship between strain and illegal behavior". Once they reviewed the literature, they concluded that their hypothesis was marginally supported. In their discussion they mention that higher levels of depression are associated with more property crime involvement, whereas higher levels of PTSD are associated with more involvement in violent crime. (Tyler, Kort-Butler and Swendener, 2014; pp. 10).

Finally, although some studies have been able to comfirm that there is a certain association among all three, very few have tried to find the level of effect they have on each other, if any, and how to prevent or improve delinquency and mental illness in homeless population.

2.4. Explanatory theories

In order to understand the relationship among the three variables, first we will link them by paring them up and seeing what kind of affiliation they have. Therefore, to begin we will start with "homelessness" and "disruptive behaviors", and we will identify possible criminological theories that can explain their link.

On one hand we have General Strain Theory by Agnew (2006) which suggested that strains can generate crime and delinquency by reducing social control and fostering social learning of crime. (cited by Wan-Ning, Ain, Xiaojin, Yijun, 2012). In order to stray from disruptive behavior positive factors or protective factors have to be identified in their lives to prevent them from deviating.

On the other hand, we can refer to Social Control Theory, that in Hirschi's (1969) view, people respect the law because they feel attached to the social order, and consequently, crime arises as a possibility when these bonds that keep the individual united in society, those that lead to respect for order normative and social, weaken it. From then on, crime becomes a viable alternative to behavior. Therefore, those who are isolated from the conventional bonds that society holds, such as homeless people, will be more likely to deviate from those social norms and laws.

As well as that, Hirschi and Gottfredson's Self-control Theory can be an explanation. They identify six distinct elements of self-control and suggest that people who lack self-control tend to be

impulsive, insensitive, physical (as opposed to mental), short-sighted, risk takers with low frustration tolerance, and therefore will tend to engage in criminal acts (Gottfredson and Hirshi,1990; cited by Baron, 2003). Thus, lack of self-control or impulsivity can cause deviation from the norm in people who must go to great lengths to survive and stay healthy, therefore needing to base their actions on instinct and risk.

Nonetheless we must also take into consideration the tole it takes in life to become homeless, as well as the stigma it carries. These people are described and conceived individuals with severe mental illness as either victims or perpetrators of crime (Laurence, Crocker, Nicholls, Latimer and Ayllon, 2014), having a constant target on their back and being depicted as less important and even an inconvenience. This can cause sever effects on their own perception of themselves and drive them to feel powerless to their situation and not being able to escape that label society has put on them.

2.5. Justifying the systematic review

In this project it has been decided to carry out a systematic review since it is an issue that has been evaluated before and there is much literature on the subject assessing association between 2 variables but no clear conclusions or systematic review of mental health, delinquency and homeless. However, the review aims to seek a consensus within this literature, analyzing the results of the large number of investigations on the subject to create a general idea of the concept. Thus, a systematic review can identify gaps requiring further research and areas where the empirical literature has converged, and little further study is required. Systematic reviews provide a less biased and comprehensive consideration of the field to support clinicians by summarizing the current, best evidence available (Laurence, Crocker, Nicholls, Latimer and Ayllon, 2014). Because more reliable estimates of the prevalence of serious mental disorders in the homeless should help inform public policy and development of psychiatric services, particularly in urban centers (Fazel, Khosla, Doll and Geddes, 2008).

This will seek bibliographic sources from different scientific databases in order to synthesize the large amount of information about the study object and subsequently create as valid conclusions as possible, empirically.

3. Objectives and hypothesis

3.3. Objectives

The general objective of this project is to carry out a systematic review of the scientific evidence regarding the study of the association among disruptive behavior, homelessness and mental health.

As for a more **specific objectives**:

- 1) To assess if there is an association between homelessness and mental disorders.
- 2) To assess the association between mental disorder and disruptive behavior.
- 3) To review which kinds of mental disorders are more associate with homeless and disruptive behavior, finding out if it has more to do with severe mental health problems or with personality disorders.
- 4) To assess if mental disorders and antinormative behavior in homelessness affect more the younger population or the elder population.
- 5) To assess if mental disorders and antinormative behavior in homelessness are more prevalent in men.

3.4. Hypothesis

- 1) Mental disorders are more prevalent in homelessness people. There are some studies that have found higher rates of serious mental disorders in the homeless community².
- 2) There is a correlation between antinormative behavior and mental disorders. There are some disorders that are associated to a certain criminal activity, such as depression with property crime and PTSD with violent crime³.
- 3) There is a relation between delinquency, mental health and homelessness⁴. It has been associated the fact that between 20% and 50% of homeless adults have severe mental illness, which increases the association to adverse outcomes such as involvement in the criminal justice system.

² Fazel, Khosla, Doll and Geddes, 2008.

³ Tyler, Kort-Butler and Swendener, 2014.

⁴ Roy, Crocker, Nicholls, Latimer and Ayllon, 2014.

- 4) Severe mental disorders will be more associate to antinormative behavior in homelessness population⁵. The rates of criminal behavior, contacts with the criminal justice system, and victimization among homeless adults with severe mental illness is higher that among housed adults with severe mental illness.
- 5) Younger people are more affected by mental disorders causing them to exhibit more antinormative behaviors⁶. Anger, depression and sadness are often mixed up, finding inward expression in self-mutilation, risk taking behaviour and suicide attempts and outward expression in a sometimes-confusing cocktail of criminal and anti-social behaviour (Leary 1990).

4. Methodology

4.3. Process

A systematic review will be conducted in order to find and analyze existent literature regarding the relationship among mental health, homelessness and disruptive behavior. In order to develop said study, we must first understand what a systematic review is. Systematic reviews, as the name implies, typically involve a detailed and comprehensive plan and search strategy derived a priori, with the goal of reducing bias by identifying, appraising, and synthesizing all relevant studies on a particular topic. In order to do so we will follow 8 steps or stages: (1) Formulate the review question, (2) Define inclusion and exclusion criteria, (3) Develop search strategy and locate studies, (4) Select studies, (5) Extract data, (6) Assess study quality, (7) Analyse and interpret results and (8) Disseminate findings (Uman, 2011).

Once we have stablished our algorithm and the opt-in and opt-out criteria were defined in order to select the information, the following step will be filtering all the articles as a result of it. To do so we will look firstly at the titles, then we'll read the abstracts and decide if those studies are adequate for our research and finally, we will read the whole articles (about 50 of them). The results of the articles are then analyzed to confirm or refute the work hypothesis, as well as being able to propose new future research lines or preventive measures.

⁵ Roy, Crocker, Nicholls, Latimer and Ayllon, 2014.

⁶ Learly, 1990, cited by Podesta and Jones, 1993.

The period in which we will compress the research is up until March of 2020. And the data based that has been used for the collection of the literature is PubMed, with the use of mesh terms and Boolean operators.

4.4. Research Terms (Algorithm)

In order to do a systematic review, so, we have used one specific data base to recollect the studies, PubMed. In this data base we have used mesh terms, the name of a large, controlled terminology vocabulary for scientific book and article publications (NCBI, 2001). To apply different mesh terms, Boolean operators (AND/OR) were used as well, in order to connect the search words together to either narrow or broaden your set of results (MIT Libraries, 2018).

After many tries in order to collect the most precise results the final algorithm is the next: "Homeless" OR "Shelter" AND "Criminal Behavior" OR "Delinquency" AND "Mental Disorder or Mental Health" (see Annex 1 for the rest of the searches).

4.5. Inclusion and exclusion criteria

For the sake of knowing which investigations were useful and which ones were not, criteria of inclusion or exclusion was applied.

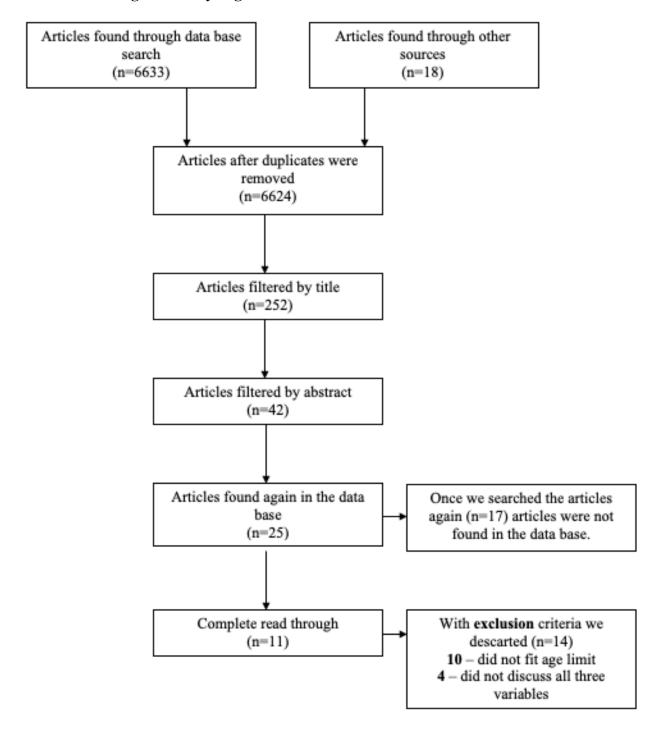
INCLUSION	EXCLUSION
Age over 18 and any gender.	People who present symptoms of a disorder
	but do not have a diagnosis.
Studies must be either in English or Spanish.	People on the foster care system, only those
	who do not have a home to live in or a shelter
	to protect them
Homelessness understood as any person who	
does not have a property where they reside	
nonetheless if they can sleep in shelters we will	
include them as well, because we care that they	
do not have a home of their own.	

Mental health as any kind of disorder was taken into consideration as well as having substance abuse problems, nonetheless they must have been diagnosed with such disorder.

Delinquency as criminal records or self-reported crimes, we will include those that have no paper trail but do admit to having committed a crime.

Both primary studies and systematic reviews that have already treated this phenomenon.

4.6. Obtaining and Analyzing the articles



5. Result Analysis

As for the results, there were a total of 26 articles that were selected on the abstract read-through, of those, once the articles were fully read, 11 were selected to be analyzed. Out of these 11 articles, there will be a exposition on the results and a discussion on the topic and correlation among the variables we have been treating.

As for the results extracted from the already existent literature, 5 categories were created in order to compilate the information: 1) Homelessness and Mental Health; 2) Homelessness and Substance Abuse; 3) Homelessness and Delinquency; 4) Reasons behind being homeless and, finally, 5) Exiting Homelessness.

1) Homelessness and behavior (mental health)

It seems to be clear that mental health and homelessness are somewhat related. In most of the articles analyzed these two variables go hand in hand.

It seems as the intent of correlating mental health and homelessness goes as far as 1996, when Heffron, Skipper and Lambert, explained that homeless respondents were much more likely to have been hospitalized for their mental illness. In their sample the results showed that 82% of respondents that reported having medical issues had either mental illnesses or substance abuse. In this sample 9% (34 respondents) reported a mental diagnosis, in which 17 were homeless people. In the investigation conducted by Pedersen, Tucker, Klein, and Parast (2018) one-third of half the homeless youth participants met the criteria stablished as "behavioral health problems". About three-quarters of homeless youth that met the criteria for PTSD or depression and perceived the need for mental health care also reported receiving that cares. There are many studies that show homeless population with mental disorders being in need of more intense levels of care (McNiel and Binder, 2005). In their study they found that many were diagnosed with psychotic disorders, mood disorders and personality disorders, as well as substance usage that makes it more difficult to adhere to community treatment.

As well as this, in the article by Dworsky, Napolitano and Courtney (2013) there were higher rates of youths with mental illness that became homeless after leaving foster care, in comparison with those who left foster care without any mental illness diagnoses. With this they explained mental illness as a risk factor on becoming homeless, accompanied with the risk factor of having been abused physically in their childhood. On younger homeless population many studies have been

carried out, and many have tried to find reason behind their ways of acting because of their homelessness. In the articles by Dashora, Erdem and Slesnick (2010), they have tried to explain the ways of copping in their sample. In their results they found that youth's emotional reactions to stress, such as anger and self-blame, were associated with higher levels of anxiety/depression and delinquency. In the words of the authors, "consistent with the literature (Endler & Parker, 1999) and with this study's hypothesis, higher use of emotion-oriented coping predicted higher delinquency whereas higher use of task-oriented coping predicted lower delinquency" (Dashora, Erdem and Slesnick, 2010, p.164). In an attempt to justify it, they understand that the lack of control leads to antisocial behaviors.

In another research, a participant explained that being diagnosed (ADHD diagnosis) late in life made her get labelled as a naughty child in school and be regularly suspended from school consequently having a poor education and therefore having a risk factor on becoming homeless, as explained by the research (Mabhala, Yohannes and Griffith, 2017).

In the homeless population it has been shown that mental illness usually has comorbidity, as we can see in the research carried by Somers, Moniruzzaman, Rezansoff, Palepu and Patterson (2013) in which they identified in their sample that ninety-two percent of participants met criteria for mental disorders coded as "severe" (comprised of psychotic disorders and bipolar disorder), with 62% also having substance dependence, and 50% having multiple mental disorders (not including substance dependence).

In other studies, the results of a homeless sample were compared with domiciled people, as was the case in the Wong and Piliavin (2001) where the reports on psychological distress was higher in the first than the last, as 64% of the participants were classified as "possibly depressed", making it approximately three times that reported on domiciled population. They concluded that mental health problems were widespread among homeless population and in higher rates that non-homeless. By this they mean to say that chronical homelessness, undergoing the process of assimilating a street culture, may develop a sense of personal identity and life-style preferences making living on the streets less psychologically strenuous that those who have recently dislocated (Snow & Anderson, 1987; cited by Wong and Piliavin, 2001). In correlation with them, Douyon, Guzman, Romain, Ireland and Mendoza (1998), had previously said that contrary to popular conception those who were chronically homeless were not likely to show more neurological dysfunction than the acutely homeless.

In the study carried out by Roy, Crocker, Nicholls, Latimer and Ayllon (2014) and while it is a systematic review, they found that the most common disorders in homeless population were antisocial personality disorder and substance abuse.

2) Drug or substance abuse

While reading all the studies it became a persistent theme to separate mental disorders from substance abuse, because in many cases they appeared together but in many others the substance abuse was the only mental disorder that was identifiable. Therefore, in this analysis we'll take that into consideration and discuss substance use in homeless population as a different type of mental illness.

In the study carried out by Mabhala, Yohannes and Griffith (2017) in which they tried to explain the reasoning behind homelessness through breakdown of relationships, many participants described that the main cause of these breakdowns were alcohol and drug abuse alongside criminal behaviors. In many cases they explained that they were once married but it was their addiction to alcohol that caused their marriage to fail and then they became homeless. As well as them, other studies have shown how substance abuse diagnoses and family history of psychiatric illness are also important mediators of homelessness, a finding that concurs with those of the present study (Douyon, Guzman, Romain, Ireland and Mendoza, 1998).

In the same line, in the study carried out by Heffron, Skipper and Lambert (1996), they questioned homeless population and non-homeless population (divided into different sub-groups), showing that 43 answered having alcohol abuse and 46 drug abuse. In another research, with much more detailed analysis in a total of 2.784 visits to urgent care 829 (30%) were made by homeless people in the psychiatric emergency service. And the most diagnosed disorder was substance-related disorders. A total of 977 episodes (35%) were patients who had substance-related disorders with comorbidity with another mental disorder (McNiel and Binder, 2005).

Finally, in a research more based on younger homeless population, they found that homelessness was a more pressing problem in their eyes regardless of their mental health or substance/drug abuse. In their results they concluded that this could be justified by the stigma around pursuing mental health or substance use care, lack of availability of these services at drop-in centers or other

agencies youth attend, or knowledge that such services are even available to them (Pedersen, Tucker, Klein, and Parast, 2018).

3) Homelessness and delinquency

In homeless population it seems that delinquency is very persistent, for one reason or another many homeless people resort to delinquency and many studies try to explain the characteristics of this phenomenon.

Although most of the investigations focus on adult homeless population, in the Mabhala, Yohannes and Griffith (2017) they explain how adult homelessness is more visible in the public eye but many of the people in their research agree that the process began at their childhood. As well as that, those younger homeless people with a plan or those who generate alternative solutions to potential stressors are less likely to develop delinquent behaviors (Dashora, Erdem and Slesnick, 2010).

In some studies, in order to understand the violent behaviors they focused on the "presence of frontal lobe release signs, which appears to influence hostility and violence and is a common patter in violent individuals and those with impulse control disorders, which could contribute to maintaining homelessness" (Douyon, Guzman, Romain, Ireland and Mendoza, 1998, p. 213).

In most cases studies concurred that the most typical offence committed by homeless population was acquisitive offences, as said by Short, Dickson, Greenberg and MacManus (2018).

In another study with a sample of 198 of homeless people, with an average of more than 8 offences in the 10 years prior to their study. They determined that even though two thirds of the sample had substance dependence this was not significant enough to predict convictions pos-study and were not able to improve public safety if they send them to houses with rehabilitation programs. As well as that, they concluded "neither the severity nor the number of mental disorders experienced by participants was associated with offending post randomization" (Somers, Moniruzzaman, Rezansoff, Palepu and Patterson, 2013, p. 7). As a final conclusion they explained that "the importance of addressing criminogenic risks that are shared by people who are homeless and mentally ill, such as poverty and exposure to crime, rather than triaging offence risk on the basis of specific symptoms" (Somers, Moniruzzaman, Rezansoff, Palepu and Patterson, 2013, p. 7).

In the McNiel and Binder (2005) a 10 % of the sample exhibited a recent history of violent behavior, nonetheless in this study it seems like it contradicts others when it shows that Patients who were given a diagnosis of a substance related disorder had somewhat lower rates of

preadmission (in psychiatric emergency services) violence than other patients. In this sample there were less homeless patients with a "recent history of violence than other patients in the component of the community mental health system represented by the psychiatric emergency service" (McNiel and Binder, 2005, p. 701). In their study even though the homeless presented less acts of violence, they noticed those were more visible to the public eye and related it to another study in New York City, in which they found increased rates of violent behaviors in homeless persons with mental disorders. To this, they presented a hypothetical explanation: "it is possible that violent behavior by homeless persons with mental disorders is more likely than such behavior by other persons with mental disorders to come to the attention of authorities because of its more public nature" (p. 702-703). In the same line as this last article, the one made by Roy, Crocker, Nicholls, Latimer and Ayllon (2014) explained how "when individuals with severe mental illness are homeless and thus visible in the public space, they are more likely to draw attention from the public and from law enforcement personnel and thus to be rearrested more frequently" (p. 744). As well as that in terms of criminal justice involvement, homeless individuals with severe mental illness tend to be more similar to the general homeless population than to the general population of individuals with severe mental illness. Meaning that even if there are differences in the homeless population, having a mental disorder does not significantly increase the chances of committing an offence.

4) Reasoning behind being homeless

In order to prevent homelessness, we first must understand the phenomenon and see why people end up becoming homeless. In many studies the question "how did you became homeless" has emerged and there are, as one might expect, many answers to explore.

In the investigation Mabhala, Yohannes and Griffith (2017) it was established that becoming homeless was a process mostly a response to adverse incidents in one's life. As they explain it:

The data further show that the final stage in the process of becoming homeless is a complete collapse of relationships with those with whom they live. The most prominent behaviours described by the participants as being a main cause of breakdown are:

1) Engaging in maladaptive behaviour: substance misuse, alcoholism, self-harm and disruptive behaviours.

2) Being in trouble with the authorities: theft, burglary, arson, criminal offenses and convictions (Mabhala, Yohannes and Griffith, 2017, p. 8).

In another study the sample was partly made from people who were homeless and had been in the foster care system when they were younger. Therefore, those who had been in the foster care or had been frequently changed in placement and had run away had higher risks of becoming homeless. As well as that, they concluded that the profile of a person with higher risk was being male and was consistent with the results of a study by Boesky and Bukowski (1997), who found that the risk of becoming homeless declines for females but rises for males during the transition to adulthood (cited by Dworsky, Napolitano and Courtney, 2013).

Following the last article, in the one carried out by Heffron, Skipper and Lambert in 1996, they stablished a pattern in profiles of homeless people, that being "younger, male, from an ethnic minority group, and unmarried than were their counterparts in a segment of society that had private medical insurance" (p. 10). As well as that, having risk factors from childhood, like previously said, may be a big indicator of homelessness in adulthood. Finally, they conclude that homelessness appears to be caused by many factors. Basic causes related to lifestyle factors that can even begin in childhood appear to be more important than physical health conditions.

5) Exiting homelessness

While there are many explanations as to why people may or may not end up becoming homeless, many studies present certain points that have or may be able to help that population to exit their homeless situation.

In the Somers, Moniruzzaman, Rezansoff, Palepu and Patterson (2013) study, the whole idea is that giving accessibility to house programs such as Housing First produces significant reductions in reconvictions compared to usual care. People who are both homeless and mentally ill are frequently in contact with the justice system, a process that is both destabilizing to the person and costly to society. In the same line as this one, the idea that addressing the co-occurring problems of homelessness, mental disorder, and violence need sufficient resources and coordinated involvement of multiple service delivery systems to be effective, while many have seen that there is a problem, now what we need is action to solve it (McNiel and Binder, 2005).

6. Discussion

Finally, after analyzing all the investigations and presenting the results some ideas have become more prevalent than others and we will be discussing them a bit further in this section.

The first idea that has stuck was regarding mental disorders and how often they precede the homelessness situation. In many cases the people who were homeless reported having some kind of disorder, most likely substance abuse related, that they felt impacted their life's enough to be a big reason behind their living situation. It has been through these statements and other studies that we have concluded that mental health or lack thereof can be a big risk factor that can help prevent homelessness if detected in time.

Regarding our first hypothesis we can state that mental health has, in many cases, higher rates in homeless population, in many studies there are comparisons between homeless population and general population, and it can be seen how the first have more reports of needing mental health services and higher numbers of diagnoses. With this idea we conclude that it may be that in the situation that they find themselves living, the lack of proper health services can deteriorate their mental health in a way that general population does not present because of their access to proper services.

For the second hypothesis we have not found anything that confirms the idea that certain disorders can directly correlate to a specific type of criminal activity. As for the fourth hypothesis, in which we specify the idea that certain disorders are more likely to cause criminality in homeless population, we cannot confirm this to be true due to the lack of evidence found in the articles analyzed. Nevertheless, we have found that in homeless population the most common offence seems to be property crime, the reason behind it has been explained by various hypothesis but we cannot confirm nor deny any.

On the other hand, criminality in homeless population has been discussed in many of the earlier mentioned articles and investigations, nonetheless it does not present a unanimous consensus on these being a big enough phenomenon that must be rapidly intervened upon. Many cases present homeless population having encounters with the justice system, regardless of the type of offences, not many studies agree that these numbers are in any degree significant enough compared to the general population. Therefore, although we may see that homelessness can be related to criminality

it is not a big enough reason to identify it as a risk factor but more as a consequence of the situation in which they are living.

As well as that, it has been interesting to see that many authors agree that in many cases, the idea of homelessness and delinquency are linked in the eyes of the public because of the focus they receive from the authorities. It is a very overwatched community that in many cases feels like are being criminalized and labelled as a problematic group, but in comparative studies between homeless population and general population there are not significant differences in number, type or degree of offences.

In regard to our third hypothesis, we can agree that indeed there is correlation between the three variables. Nonetheless what we cannot assure is that there is causation in between them. In the search for different types of studies, there were not many that were longitudinal, meaning maybe this are the ones that could shed some new light into de long term effects or explanations on the phenomenon. There is evidence that in many cases they do appear in a person, however, we cannot identify if one precedes the others or if one can be the cause of the rest. What we can say is that in many cases mental health can become a risk factor to eventually deteriorate your life in a way that can finally cause the loss of accommodation and home. Unlike that, we cannot assure that criminality is the cause of homelessness or that homelessness causes people to offend. Therefore, we can consider as well, criminality as a risk factor to cause instability in people's life that can eventually lead to homelessness. And in another way, it can be a consequence of lack of stability that can lead to desperate actions such as offending.

As for the last hypothesis we have not found evidence that in younger homeless people mental disorders have a greater effect, nevertheless, we do have evidence that in many cases adult homeless started having problems and deteriorated mental health from childhood. Hence we can say that if this were to be further looked into there might be a proper explanation as to how mental health effects younger homeless people, but in this project we have felt short to demonstrate this hypothesis to be true.

Finally, it must be said that all the investigations read and analyzed in this project are merely a theoretical analysis of the reality of homelessness, it intends to give information regarding this

reality and contribute to a further learning of the subject. Nonetheless it is interesting that many of these studies end the article by presenting possible ideas for further interventions that, accompanied by their research, can lead to a proper intervention to help the homeless population improve in the areas we've discussed. Thus, we conclude that in this case, investigations have been properly led to understand the phenomenon, but we must now star to create interventions that can hopefully improve the living situation and health of these collective.

7. U v w f { ø u ' nankd dukure kinneskofqingvestigation

As for the limitations on this investigation the first and probably the biggest one is that all articles used on the analysis of results are from one exclusive data base, PubMed, therefore there is not much variety on the investigations. Nonetheless, the fact that they come from this data base make it easier to find better investigations containing trustworthy perspective on subjects such as mental health.

Another limitation is that this has been done by one person only, when usually systematic reviews have different people for different tasks in order to make it easier and more efficient to find the proper articles fitting the theme in each project.

Finally, more in the idea on how to develop future investigations, most systematic reviews are hand in hand with a metanalysis that helps improve the result analysis and have a deeper sight into the conclusions regarding the review. Unlike this project, in which it was only possible to do a review on the existing literature, in future research in this topic it would be interesting to have both techniques improving the final result.

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9. Annexes

9.1 Annex 1:

1	((((((Homelessness)	1,330,055 results	Too many
•	OR (homeless)) AND	1,550,055 1 654165	100 many
	\ ''		
	(delinquency)) OR		
	(deviant behavior))		
	AND (mental illness))		
	OR (mental disorder)		
2	((((((Homelessness)	1,330,064 results	Not too interesting,
	OR (shelter)) AND		too focused on
	(delinquency)) OR		"mental health".
	(deviant behavior))		
	AND (mental health))		
	OR (mental disorder)		
3	((((((Homelessness)	10 results	Focused on youth
	OR (shelter)) AND		(guessing it is because
	(deviant behavior))		of "deviant
	AND (mental		behavior")
	disorder)		
4	((((((Homelessness)	56 results	Youths again, not
	OR (shelter)) AND		good.
	(delinquent		
	behavior)) AND		
	(mental disorder)		
5	((((((homeless) OR	48,647 results	Too focused on
	(shelter)) AND		psychopathology but
	(criminal behavior))		not enough homeless.
	OR (delinquency))		
	AND (mental		
	AND (iliciliai		

	disorder)) OR		
	(psychopathology)		
6	((((((homeless) OR	6,082 results	Seems good, many
	(shelter)) AND		have already been
	(criminal behavior))		used in the theoretical
	OR (delinquency))		frame.
	AND (mental		
	disorder)		
7	(((((((homeless) OR	36,715 results	Too many partner
	(shelter)) AND		violence related
	(criminal behavior))		articles.
	OR (delinquency)))		
	OR (violence)AND		
	(mental disorder))		
8	((((((homeless) OR	6.347.484 results	Some are interesting,
	(shelter)) OR (no		some I already had
	home)) AND		saved, many seem to
	(criminal)) OR		be related to the three
	(justice system))		variables.
	AND (mental illness))		
	OR (disorder)		
9	(((((((((homeless)	6.000.000 results	They do not have the
	OR (shelter)) OR		three variables.
	(homelessness)) AND		
	(justice)) OR (crime))		
	OR (criminal)) OR		
	(prison)) AND		
	(mental illness)) OR		
	(mental health)) OR		
	(disorder)) OR		
	(affective disorders)		

10	(((homeless) OR	1.000.000 results	The most part are
	(shelter)) AND	aprox.	useless, not related to
	(crime)) OR (justice		the three variables.
	system) AND (mental		
	illness)) OR (mental		
	disorders))		
11	(((homeless) OR	1.000.000 results	Same as the rest, not
	(shelter)) OR (without	aprox.	the 3 variables.
	home)) AND (crime))		
	OR (justice system)		
	AND (mental illness))		
	OR (mental		
	disorders))		
12	(((homelessness)	1.000.000 result	Some have the 3
	AND (crime)) OR	aprox.	variables, seems
	(penal system) AND		interesting.
	(mental illness)) OR		
	(mental disorders))		
13	(((mental health)	39.566 results	Seems to touch the
	AND (homeless))		subject vaguely.
	AND (crime)) OR		
	(justice)		
14	((((mental health) OR	13,011 results	May be in a good
	(disorder)) AND		path.
	(homeless)) AND		
	(crime)) OR		
	(delinquency)		
15	((((mental health) OR	40. 525 results	Similar to the last 2.
	(disorder)) AND		
	(homeless) OR		

	(shelter)) AND		
	(crime)) OR (justice)		
16	((((mental disease)	40.492 results	Results show
	OR (pathology))		similarities with other
	AND (homeless) OR		algorithms.
	(shelter)) AND		
	(crime)) OR (justice)		
17	((((mental illness) OR	13. 716 results	Some are interesting,
	(disorder)) AND		but we'd seen them
	(homeless) OR		before.
	(shelter)) AND		
	(crime)) OR		
	(delinquency)		
18	((((mental illness) OR	12.440 results	Not very related.
	(disorder)) AND		
	(homeless) OR		
	(shelter)) AND		
	(deviation)) OR		
	(delinquency)		
19	((((mental illness) OR	211.017 results	Not a similarity at all,
	(disorder) AND		too focused on
	(homeless) OR		"arrest"
	(shelter) AND		
	(deviation)) OR		
	(delinquency) OR		
	(arrest)		
20	((((mental illness) OR	37.124 results	Focused on "mental
	(disorder)) AND		health" and "crime"
	(homeless) OR		but not related
	(shelter)) AND		between the two.

	(deviation)) OR		
	(criminal)		
21	((((mental illness) OR	49.924 results	Not a single thing on
	(disorder)) AND		"homelessness" and
	(homelessness) OR		there seems to be
	(shelter)) AND		nothing on the
	(deviation)) OR		subject.
	(criminal) OR		
	(offender))		
22	((((mental illness) OR	49.931 results	Very vaguely related,
	(disorder)) AND		only some articles.
	(homeless) AND		
	(arrest)) OR		
	(criminal) OR		
	(offender))		
23	(((((homeless) OR	6,632 results	Not in the line we're
	(shelter)) AND		looking for.
	(criminal behavior))		
	OR (delinquency))		
	AND (mental		
	disorder or mental		
	health))		

9.2. Annex 2:

ART. 1: Offending behaviour, health and	Short, Roxanna	2018
wellbeing of military veterans in the criminal	Dickson, Hannah	
justice system.	Greenberg, Neil	
	MacManus, Deirdre	
ART. 3: Perceived Need and Receipt of	Pedersen, Eric R	2018
Behavioral Health Services at Drop-In Centers	Tucker, Joan S	
among Homeless Youth.	Klein, David J	
	Parast, Layla	
ART. 7: Social conditions of becoming	Mabhala, Mzwandile A	2017
homelessness: qualitative analysis of life stories	Yohannes, Asmait	
of homeless peoples.	Griffith, Mariska	
ART. 16: Criminal behavior and victimization	Roy, Laurence	2014
among homeless individuals with severe	Crocker, Anne G	
mental illness: a systematic review.	Nicholls, Tonia L	
	Latimer, Eric A	
	Ayllon, Andrea Reyes	
ART. 18: Homelessness during the transition	Dworsky, Amy	2013
from foster care to adulthood.	Napolitano, Laura	
	Courtney, Mark	
ART. 20: Housing first reduces re-offending	Somers, Julian M	2013
among formerly homeless adults with mental	Moniruzzaman, Akm	
disorders: results of a randomized controlled	Rezansoff, Stefanie N	
trial.	Palepu, Anita	
	Patterson, Michelle	

ART. 26: Better to bend than to break: coping	Dashora, Pushpanjali	2010
strategies utilized by substance-abusing	Erdem, Gizem	
homeless youth.	Slesnick, Natasha	
ART. 28: Psychiatric emergency service use	McNiel, Dale E	2005
and homelessness, mental disorder, and	Binder, Renée L	
violence.		
ART. 29: Stressors, resources, and distress	Wong, Y L	2001
among homeless persons: a longitudinal	Piliavin, I	
analysis.		
ART. 34: Subtle neurological deficits and	Douyon, R	1998
psychopathological findings in substance-	Guzman, P	
abusing homeless and non-homeless veterans.	Romain, G	
	Ireland, S J	
	Mendoza, L	
ART. 35: Health and lifestyle issues as risk	Heffron, W A	1996
factors for homelessness.	Skipper, B J	
	Lambert, L	