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Factors Implicated in Homelessness

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ABSTRACT

Homelessness continues to be a problem within society and over recent decades research into factors implicated in homelessness has featured in the literature. Within the literature a conceptual distinction is generally made between macro-level factors such as poverty and the limited availability of low-cost housing which explain the existence of homelessness within society, and micro-level factors, the focus of the current thesis, which influence individual vulnerability to becoming or remaining homeless. Initially, the literature regarding micro-level vulnerability factors for homelessness is reviewed, with five particular areas being selected for in-depth review. Models of the interrelationships between vulnerability factors are then described and discussed. Particularly strong evidence is found for childhood risk factors and substance use disorders constituting micro-level vulnerability factors for homelessness. It is also noted that empirical studies investigating the relationships between micro-level vulnerability factors for homelessness are limited in number and fail to consider the psychological processes which might mediate these relationships. On these grounds the present study sought to determine whether experiential avoidance mediates the relationship between poor childhood attachment and alcohol dependence in a sample of sixty homeless individuals. Somewhat surprisingly in the light of previous research linking childhood attachment and alcohol dependence, no significant association was found, suggesting that if these factors increase risk for homelessness, they do so independently. Significant predictive relationships were found, however, with regard to childhood attachment

and experiential avoidance, and experiential avoidance and alcohol dependence, making an important contribution to the burgeoning literature regarding the phenomenon of experiential avoidance.

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LITERATURE REVIEW

Micro-level vulnerability factors in homelessness: a review of the literature

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(See Appendix A for Notes to Authors)

ABSTRACT

Within the literature, a number of authors have made a distinction between 'macro' and 'micro' level factors implicated in homelessness. Macro-level factors such as poverty and the limited availability of low-cost housing explain the *existence* of homelessness within society while micro-level factors explain within such a context *who* is least able to compete for housing, that is, which individuals are most vulnerable to becoming homeless or least likely to reacquire permanent housing once homeless. This paper aims to review the existing literature on micro-level vulnerability factors for homelessness. As numerous potential vulnerability factors have received attention within the literature, five areas are selected for in-depth review: 1) childhood risk factors, 2) substance use disorders, 3) mental health problems, 4) lack of social support, and 5) criminal activity. The available evidence for each factor increasing risk of *becoming* homeless and *remaining* homeless is considered in turn. Models of the interrelationships between vulnerability factors are then described and discussed. In conclusion, it seems that findings within each of the areas has been mixed but that particularly strong evidence has been found within the areas of childhood risk factors and substance use disorders. Studies investigating the relationships between micro-level vulnerability factors for homelessness are limited in number and it is suggested that further research is warranted in this area, particularly with regard to the psychological processes which might mediate such relationships.

INTRODUCTION

Homelessness, generally defined as the lack of a permanent or regular place to live, continues to be a substantial problem in this country. Recent statistics (Department for Communities and Local Government for England, 2007) suggest that on a typical night over 85,000 people are homeless. Over recent decades, rising standards of living do not appear to have been accompanied by reductions in homelessness, resulting in increasing inequality between the housed and homeless and a growing interest in preventative action (Crane, Warnes & Fu, 2006). Research into potential causes of homelessness has, however, been complicated by the increasing heterogeneity of the homeless population, which has changed to include not only single men, as has typically been the case (Scott, 1993), but also growing numbers of women and families (Stein & Gelberg, 1995), and also by the recognition that while some individuals experience only one brief, isolated episode of homelessness in their life time, others are homeless for an extended period of time or cycle in and out of homelessness (Breakey, 1997). It appears that reasons for becoming homeless and reasons for remaining homeless may differ (Lehmann, Kass, Drake & Nichols, 2007) and that causes of homelessness are likely to be complex and diverse (Martens, 2002).

Micro and macro-level factors

Within the literature there has been considerable debate between two camps as to the possible causes of homelessness, one highlighting the importance of structural

'macro-level' factors, such as poverty within society, and the other stressing the importance of individual 'micro-level' factors such as a person's mental health problems or substance use disorder (Koegel, Melamid & Burnam, 1995). A consensus now appears to have been reached, however, and it is generally agreed that individuals become and remain homeless due to a combination of factors at both the macro and micro-levels (Morrell-Bellai, Goering & Boydell, 2000). A useful distinction made by several authors (e.g. Bassuk et al., 1997; Koegel et al., 1995; Muñoz, Vázquez, Panadero & de Vicente, 2005) is that macro-level factors explain the *existence* of homelessness within society while micro-level factors explain within such a context *who* is least able to compete for housing, that is, which individuals are most vulnerable to becoming homeless or least likely to reacquire permanent housing once homeless. McChesney (1990) illustrates this conceptualisation by means of an analogy to the game of 'musical chairs'; macro-level factors result in there being too few chairs (or homes), while micro-level factors determine who will be left without a seat (or housing) when the music stops.

Thus, theories of homelessness in terms of macro and micro-level factors have different explanatory power but appear to be complementary to one another. Macro-level factors are valuable in explaining variation in the numbers of homeless people, in different geographical areas and at different points in time, in terms of variation in, for example, the availability of housing that is affordable for the least-affluent section of society, employment rates, minimum wage standards and the provision of state benefits. Such theories are supported by the observation that poverty is the one

factor common to all homeless people (Morrell-Bellai et al., 2000) and evidence suggesting that homelessness has not been as significant a problem in countries such as the Netherlands where social housing is more readily available (van Vliet, 1989). Alone, however, theories based on macro-level factors fail to explain the disproportionate presence of particular characteristics within homeless populations (Toro et al., 1995) which suggest that homelessness is not a random event and is not equally likely to affect each individual within a society. Similarly, an explanation of homelessness solely in terms of micro-level factors would appear to inappropriately blame individuals for their situation by attributing their homelessness to particular personal characteristics (Koegel et al., 1995). If care is taken to acknowledge the importance of macro-level factors, however, its seems that the identification of micro-level vulnerability factors is likely to be of value in informing appropriate services working to prevent and alleviate homelessness (Rosenberg, Solarz & Bailey, 1991).

Research into micro-level vulnerability factors

Over the past fifteen to twenty years a number of researchers have sought to identify micro-level vulnerability factors for homelessness and the vulnerability model is one of the theoretical frameworks that has received the most attention and empirical support within the study of homelessness (Muñoz et al., 2005). To date, potential micro-level vulnerability factors that have been discussed within the literature include: having a parent with substance misuse problems (Bassuk et al., 1997); childhood abuse (Herman, Susser, Struening & Link, 1997); foster care (Odell &

Commander, 2000); a lack of education or training (Brooks & Buckner, 1996); poor employment history (Stark, Scott & Hill, 1989); physical health problems (Snow & Anderson, 1993); mental health problems (Scott, 1993); hospitalization for mental health problems (Bassuk et al., 1997); substance use disorders (Caton et al., 2000); being male (Scott, 1993); pregnancy or recent childbirth (Weitzman, 1989); poor social or family network (Unger et al., 1998); loss of a significant support person through marital break up or death (Cohen & Sokolovsky, 1989); stressful life events (Wong & Piliavin, 2001); victimization experiences (D'Ercole & Struening, 1990); and criminal activity (Stein & Gelberg, 1995).

Search strategy

Given the scope of this paper, it was not possible to review the evidence for all of the potential micro-level vulnerability factors for homelessness considered within the literature. Therefore, an iterative process was undertaken to identify the factors that had received the greatest attention within the literature and to determine which should be included within the review. This was begun with a literature search using the databases Web of Knowledge, PsycINFO, Ovid MEDLINE and Google Scholar using the descriptors 'homeless' and 'homelessness' and the terms 'vulnerability', 'individual risk factors', and 'micro-level factors'. Cited references were pursued and key papers identified (Bassuk et al., 1997; Benda, 1990; Caton et al., 2000; Caton et al., 2005; Morrell-Bellai et al., 2000; Muñoz et al., 2005; Stein & Gelberg, 1995; Susser, Moore & Link, 1993; Toro et al., 1995).

These nine key papers were read thoroughly and notes were taken of all micro-level variables referred to within them. Comparisons between the papers were made and variables featuring in more than one paper were added to a list. 'Physical health problems', for example, was found to feature in six of the papers and was therefore placed on the list. Where the terms used by different authors were felt to be very close in meaning or to tap a single construct, the most commonly used term was noted on the list. 'Mental illness', 'mental disorder', 'psychiatric disorder' and 'mental health problems', for example, were felt to refer to one factor and were therefore added to the list under the single term 'mental health problems'. Where a variable was felt to be a specific aspect of a wider variable referred to by one or more other papers, the wider variable was placed on the list. 'Lack of social support', for example, was interpreted as encompassing 'poor family support', and therefore this broader variable was added to the list. The resulting list of 21 micro-level variables[1] was noted to include both variables suggested *generally* to be of significance with respect to homelessness, such as 'age', and factors suggested specifically to be micro-level *vulnerability* factors, such as 'history of childhood abuse'.

During the final stages of the process, the attention each of the micro-level variables on the list had received within the literature was gauged and the value of their

[1] Adverse life events, age, criminal activity, education/training, employment history/status, family relationships during childhood, gender, history of being a looked after child, history of childhood abuse, housing history/status, income, lack of social support, marital status, mental health problems, parental substance abuse in childhood, physical health problems, race/ethnicity, religion, substance use disorders, victimization in adulthood, veteran status.

review within the current paper was judged on the basis of further scrutiny of the nine key papers, taking into account: i) the number of the key papers discussing the micro-level variable, ii) the total number of cited references put forward as evidence regarding it, and iii) the conclusions drawn by previous authors from reviews of the literature. On the basis of this exercise it was possible to evaluate the relative merit of including each variable within the review and to select the variables of most significant merit accordingly. The one exception to this was made with regard to the individual variables relating to childhood, which were all felt to merit review but to be so closely related to one another as to allow inclusion as a single factor. The final five areas selected for review were therefore: (1) childhood risk factors, (2) substance use disorders, (3) mental health problems, (4) lack of social support and (5) criminal activity.

From the nine key papers, studies of relevance to each of the five areas were identified and reviewed in order to gain a basic understanding of pertinent issues and to identify appropriate search terms. Further literature searches were then carried out using the same electronic databases and appropriate combinations of the following terms : 'homeless', 'homelessness'; 'childhood adversity', 'childhood abuse', 'childhood neglect', 'foster care', 'attachment', 'parental bonding'; 'substance', 'alcohol', 'drug'; 'mental health', 'mental illness', 'psychiatric'; 'social support', 'social networks'; 'crime', 'criminal'. In addition to considering each of these areas, it was felt important to review the literature with regard to the interrelation of micro-level vulnerability factors and therefore searches were also carried out using the

terms 'homeless' and 'homelessness' together with the descriptors 'theory', 'model' and 'pathway'. Reference lists of all articles identified were searched for additional relevant articles to be sought and this process repeated until it was felt with a reasonable degree of confidence that all relevant literature had been obtained.

While the five selected areas have arguably received most attention within the literature, it is important to note that complex relationships are likely to exist between these factors and numerous others which have received less attention within the literature. It may be, for example, that childhood abuse impedes childhood education and therefore impacts negatively on employment opportunities in adulthood, thereby increasing risk for homelessness. It is likely that a unique combination of factors will come together in each case to undermine an individual's ability to successfully negotiate the labour and housing markets, use the state benefits system, or obtain support from family, friends or services, thus increasing risk for becoming or remaining homeless (Koegel et al., 1995). It may also be the case that micro-level vulnerability factors vary over time or across geographical regions, in the context of different economic, political, social and cultural influences and therefore different macro-level factors for homelessness (Muñoz, Koegel, Vázquez, Sanz, & Burnam, 2002).

Methodological considerations

In reviewing the literature regarding micro-level vulnerability factors for homelessness, a number of key general methodological issues become apparent with

regard to research in this area. Firstly, there is great variation within definitions of homelessness that are employed (North, Eyrich, Pollio & Spitznagel, 2004). In addition to this, the fact that the population of all homeless individuals is not registered and is therefore not precisely known (Salkow & Fichter, 2003) means that it is often difficult to ascertain whether the sample used is representative of homeless people. Some studies have attempted to estimate the size and composition of the homeless population within a particular geographical area and used probability sampling methods within specified strata (e.g. Fichter & Quadflieg, 2003; Koegel et al., 1995; Robertson, Zlotnick & Westerfelt, 1997). Most studies, however, use convenience samples of hostel residents (Fichter & Quadflieg, 1999) and results of these may not be representative of individuals who do not seek, or are excluded from, services (Fischer & Breakey, 1991). Many studies use cross-sectional samples, recruiting any participants who are considered to be currently homeless. It has been noted, however, that such samples are likely to over-represent individuals who have been homeless for long periods. People who became homeless in the past but had short episodes of homelessness will have left the sampling frame while those experiencing longer episodes remain to be sampled (Shinn, Knickman & Weitzman, 1991), causing the results of such studies to be biased accordingly.

Cross-sectional samples also pose specific problems when used within studies investigating micro-level vulnerability factors for becoming homeless as, with the exception of childhood risk factors, it is difficult to discern whether the factors under consideration were present prior to the onset of homelessness (Lehmann et al.,

2007). Data indicating that an individual has a substance use disorder one year into an episode of homelessness, for example, does not determine whether this was present prior to the person becoming homeless or if they developed the problem subsequently, perhaps in response to the situation of being homeless. Some researchers attempt to overcome this difficulty by sampling 'incident' cases of homelessness, recruiting participants at the point at which they become homeless for the first time (e.g. Shinn et al., 1991).

Descriptive studies of homeless individuals are useful in terms of identifying potential micro-level vulnerability factors for the onset of homelessness, but studies using a control group provide stronger evidence of an association. Selection of a control group in studies of homelessness is, however, a difficult matter (Lehmann et al. 2007). Using a control group from the general population may result in bias as males and people from ethnic minorities are typically over-represented in homeless populations (Reardon, Burns, Preist, Sachs-Ericsson & Lang, 2003). Also, it has been argued that the control group needs to be made up of individuals who are at risk of becoming homeless, which would not be the case for most individuals within the general population. Otherwise, differences identified may not be indicative of micro-level vulnerability factors for becoming homeless but instead, be differences relating to poverty (Toro et al., 1995). Control groups made up of a local poor population may not represent the diverse geographic populations from which the homeless samples actually derived (Susser et al., 1993), and control groups made up of individuals receiving benefits (e.g. Shinn et al., 1991), living in public housing

(e.g. Bassuk & Rosenberg, 1988), or using health services for the poor (e.g. Heffron, Skipper & Lambert, 1995) may introduce systematic bias as there is some evidence that homeless individuals have low rates of state benefit system use prior to becoming homeless (Lehmann et al., 2007).

Studies attempting to identify which micro-level vulnerability factors are associated with remaining homeless have tended to measure the length or severity of participants' homelessness so that comparisons can be made within the homeless population (e.g. Zlotnick, Robertson & Wright, 1999). Other studies trying to disentangle factors associated with becoming homeless from those associated with remaining homeless, have asked individuals to describe what they think contributed to each process (e.g. Morrell-Bellai et al., 2000). Longitudinal studies (e.g. Caton et al., 2005) are valuable as they follow the same individuals through time and therefore do not risk confusing cause and effect, but have tended to be sparse within the literature on homelessness due to the difficulty of following up individuals within this population (Susser et al., 1993).

Aims

This paper aims to review the literature on micro-level vulnerability factors involved in the processes of becoming and remaining homeless. The literature relating to potential micro-level vulnerability factors for homelessness within five major areas (childhood risk factors, substance use disorders, mental health problems, lack of social support, and criminal activity) will be reviewed in depth before models of the

relationships between vulnerability factors are considered and conclusions and directions for future research are discussed.

CHILDHOOD RISK FACTORS

Early studies on homeless populations reporting disproportionately large numbers of adults who were previously 'looked after' children (Susser, Struening & Conover, 1987), high rates of childhood abuse (Redmond & Brackman, 1990) and frequent histories of major family disruptions during childhood (Bassuk, Rubin & Lauriat, 1986), appear to have generated interest in whether childhood factors such as these, might increase vulnerability for homelessness in adulthood. Consequently, a number of researchers have attempted to determine whether adverse childhood experiences are over-represented within homeless adults. As Herman et al. (1997) note, "the temporal order between risk and outcome is clear" (p.253), and unexpectedly high frequencies of such experiences in comparison with appropriate control groups would suggest that these experiences, by some means, constituted micro-level vulnerability factors for homelessness. Many studies reported within the literature use cross-sectional samples and therefore provide evidence of whether particular experiences increase *general* risk of homelessness. Finding disproportionately high rates of childhood abuse within those currently homeless, for example, does not reveal whether an unusually large number of individuals with these experiences tend to become homeless, or whether such individuals have no increased risk of becoming homeless, but once homeless, experience more difficulty in regaining

stable accommodation. Some researchers, mindful of this however, employ methodologies which produce evidence of whether particular experiences are more specifically risk factors for *becoming* homeless, or *remaining* homeless. Key areas on which researchers have focused include childhood abuse, experience of having been a looked after child and childhood attachment relationships.

Childhood abuse

The literature, overall, is suggestive of an association between childhood abuse and homelessness, but fails to provide consistent evidence of this. A number of studies indicate significantly higher rates of childhood physical abuse (Craig & Hodson, 1998; D'Ercole & Struening, 1990; Herman et al., 1997; Toro et al., 1995), sexual abuse (Craig & Hodson, 1998; D'Ercole & Struening, 1990) and abuse generally (Bassuk & Rosenberg, 1988; Heffron et al., 1995) within homeless samples, but other studies report rates only slightly above or similar to those within the never-homeless (Herman et al., 1997), secondary data (Koegel et al., 1995), or controls (Goodman, 1991a). Three studies using incident samples, interestingly all sampling homeless mothers at the point of requesting shelter, have found higher rates of both physical and sexual abuse in childhood in comparison with housed poor mothers (Knickman & Weitzman, 1989; Shinn et al., 1991; Wood, Valdez, Hayashi & Shen, 1990), suggesting childhood abuse to be a micro-level vulnerability factor for *becoming* homelessness within this subgroup of the homeless population. Conversely, however, Bassuk et al. (1997), again sampling homeless and poor housed mothers, found comparably high levels of abuse experiences within both

groups. Only one study (Sumerlin, 1999) appears to have specifically assessed the importance of childhood abuse with respect to the duration of homeless, and found that homeless men who experienced abuse as a child had more episodes of homelessness than those who had not experienced abuse, suggesting that childhood abuse may be a risk factor for *remaining* homeless.

Looked after children

Research studies provide more definite evidence of an association between looked after children and homelessness in adulthood. This appears to be the case whether the experience of having been a looked after child is defined broadly using the American term 'out-of-home care' (Herman et al., 1997; Koegel et al., 1995), as separation from both parents for at least a year (Craig & Hodson, 1998), as time spent in statutory institutional care (Craig & Hodson, 1998; Odell & Commander, 2000), as 'foster care' (Goodman, 1991a; Mangine, Royse, Wiehe & Nietzel, 1990; Susser, Lin, Conover & Struening, 1991), or as 'group placement' (Susser et al., 1991). The literature also indicates having been a looked after child to be a good predictor, more specifically, of the risk of *becoming* homeless (Bassuk et al., 1997; Knickman & Weitzman, 1989; Shinn et al., 1991; Wood et al., 1990), although all studies sampled homeless women and this finding cannot be assumed to hold for homeless men. With regard to the experience of having been a looked after child being a vulnerability factor for individuals *remaining* homeless, however, the literature is less conclusive, with some studies finding this to be predictive of a greater length of homelessness (Piliavin, Sosin, Westerfelt & Matsueda, 1993),

associated with longer periods of time since first homeless (Sumerlin, 1999) and greater length of current episode of homelessness (Sumerlin, 1999; Zlotnick, Robertson & Wright, 1999), but others finding no significant differences in duration of homelessness according to this variable (Caton et al., 2005; Mangine et al., 1990).

Other childhood risk factors

Other aspects of childhood experience to have been considered with respect to homelessness and for which evidence has been found include parental substance use disorders (Bassuk et al., 1997; Wood et al., 1990) and neglect (Herman et al., 1997). Caton and colleagues, using the index of family disorganization from the Community Care Schedule (Caton, 1989) found that family dysfunction was not associated with homelessness among schizophrenic men (Caton et al., 1994) or women (Caton et al., 1995), and did not increase the risk of *becoming* homeless among individuals without psychotic illness (Caton et al., 2000), or predict duration of homelessness (Caton et al., 2005). Zozus and Zax (1991), however, developed an 'Inventory of Childhood Events', intended to be a broader measure of adverse childhood experiences, assessing constructs such as parental warmth and involvement, family cohesion and family discord. They found homeless men to perceive their childhood family environment as being significantly more rejecting, disorganised and abusive than poor housed controls and while Toro et al. (1995), using the same measure, found only a non-significant trend within their study, Toro et al. note that this might be due to the size of the sample used. Koegel et al. (1995) found that a higher concentration of adverse events in childhood corresponded to a

lower age at the onset of homelessness but suggest that the relationship between childhood experiences and homelessness may be complex, with varying profiles of childhood experience translating differently into risk.

Childhood attachment

Some researchers, noting that many of the experiences identified in the literature as potential childhood risk factors for homelessness are typically associated with poor attachment relationships with caregivers, have investigated such relationships. Several have done this by measuring care and control, two concepts closely related to aspects of attachment relationships, as described by attachment theory (Bowlby, 1969). Within this theoretical framework there is agreement that high levels of parental care and low levels of control constitute 'optimal parenting' (Parker, Tupling & Brown, 1979). In line with the hypothesis that poor attachment relationships in childhood increase vulnerability for future homelessness, studies have indicated homeless individuals to report lower levels of parental care (Dadds, Braddock, Cuers, Elliott & Kelly, 1993; Gossett, 2004; Schweitzer, Hier & Terry, 1994; Tavecchio, Thomeer & Meeus, 1999) and higher levels of parental control (Dadds et al., 1993; Gossett, 2004; Tavecchio et al., 1999; Turley, 1988) than controls. The findings of one study (Zozus & Zax, 1991) suggest maternal warmth and involvement to be a significant factor differentiating between homeless and poor housed men, but findings from a qualitative study, comparing homeless and poor housed women with similar histories of traumatic childhood experiences, suggest that attachment relationships with adults outside of the immediate family may

additionally be predictive of homelessness (Anderson & Imle, 2001). A study finding homeless youth with more positive attachment histories to be more responsive to services offered to them, and therefore more likely to regain accommodation, suggests that poor attachment relationships may also increase vulnerability for *remaining* homeless (Stefanidis, Pennbridge, MacKenzie & Pottharst, 1992).

Explanations as to how childhood factors increase risk for homelessness in adulthood

Authors have proposed a number of different explanations of how problems in childhood affect homelessness in adulthood (Muñoz et al., 2005) and there appears to be general consensus that childhood factors influence the resources from which adults may draw in many different ways (Koegel et al., 1995). It may be, for example, that some childhood experiences impact negatively upon the individual's education, limiting their employment opportunities (Craig & Hodson, 1998) or their ability to develop the necessary skills to sustain a stable residence (Zlotnick, Robertson & Wright, 1999). It may be that adverse childhood experiences elevate individuals' risk for mental health problems and substance use disorders in adulthood, which in turn increase risk for homelessness (Herman et al., 1997). It may be that individuals who have negative childhood experiences are more likely to have family systems that are unable, unwilling, or unavailable to provide the support in later life that would protect them from homelessness in situations of housing crisis (Koegel et al., 1995).

With regard to childhood attachment, it has been suggested that individuals with poor attachment experiences may have greater difficulties in developing and maintaining adult relationships (Anderson & Rayens, 2004). They are suggested to be more likely to develop relationships with people who are undependable support figures (Brown & Moran, 1994), to experience difficulty in maintaining a family (Whitfield, 1998), to need to escape from abusive relationships (Stein, Leslie & Nyamathi, 2002) and to have poor social support networks to turn to in times of difficulty (Anderson & Rayens, 2004). Findings from the study by Stefanidis et al. (1992) suggest that poor childhood attachment experiences may be associated with difficulties in responding appropriately to adults in positions of authority and that this may impede the productive use of services provided for homeless people. In addition to this, poor attachment experiences are thought to result in an individual having greater difficulty in tolerating or alleviating difficult thoughts and feelings in adulthood (Sroufe, 1996), which could be associated with the development of substance use disorders, as substances are used as self-medication for distress (Khantzian, 1982) or as a form of experiential avoidance (Hayes et al., 2004).

SUBSTANCE USE DISORDERS

Studies of homeless populations document vastly elevated rates of substance use disorders in countries including, for example, Britain (Fountain, Howes, Marsden, Taylor & Strang, 2003), Germany (Fichter & Quadflieg, 2003), the United States of America (Nyamathi, Bayley, Anderson, Keenan & Leake, 1999), Australia

(Teesson, Hodder & Buhrich, 2003), Canada (Acorn, 1993), and Brazil (Heckert, Andrade, Alves & Martins, 1999). The association between alcohol use and homelessness is longstanding (Breakey & Fischer, 1990) and while drug use has typically been found to be less prevalent than alcohol use within the homeless (Fischer, 1989), rates of drug use disorders are thought to have increased in recent years, particularly amongst younger people (Johnson, Freels, Parsons & Vangeest, 1997). In this country, the Advisory Council on the Misuse of Drugs has identified drug misuse as having a central role in homelessness (Advisory Council on the Misuse of Drugs, 1998) and substance abuse and dependency issues within the homeless are recognised by the government (e.g. Office of the Deputy Prime Minister, 2004). The relationship between substance use disorders and homelessness appears to be complex, however, with substance use disorders potentially increasing individuals' risk of *becoming* or *remaining* homeless but also possibly arising as a *consequence* of homelessness.

It has been suggested that substance use disorders might increase vulnerability to *becoming* homeless through, for example, draining economic resources and leaving insufficient funds for accommodation (Teesson et al., 2003); impacting negatively on the ability to obtain or maintain a job (Buckner, 1991); adversely affecting ability to use the welfare system (Snow & Anderson, 1993); contributing to marital breakdown (Roth & Bean, 1987); resulting in disruptive behaviour and thereby reducing the tolerance of friends, family and landlords (Baumohl & Huebner, 1991); and by encouraging criminal behaviour (Odell & Commander, 2000). It is

hypothesised that substance use disorders might also increase vulnerability for *remaining* homeless through, for example, impairing the individual's ability to negotiate the bureaucratic barriers to regain accommodation (Robertson, 1991), increasing risk of exclusion from hostels (Thompson, 1987) and restricting eligibility for certain forms of housing (Lamb & Lamb, 1990). Theories within the literature as to how substance use disorders may arise as a *consequence* of homelessness include suggestions that substance use may be employed as a method of coping with the stresses associated with being homeless and that increased use may be associated with entry into a subculture in which substance use is common (Johnson et al., 1997).

There is a general consensus within the literature that the relationship between substance use and homelessness *is* likely to be bidirectional, with substance use potentially increasing risk for homelessness and homelessness potentially increasing risk for substance use (McCarty, Argeriou, Huebner & Lubran, 1991). Some researchers have attempted to determine whether there is a predominant trend, but findings have failed to identify a uniform pattern (O'Toole et al., 2004). Some research, congruent with the conceptualisation of substance use as occurring in reaction to homelessness, has found binge drinking (Sosin, Piliavin & Westerfelt, 1990), substance use (Fountain et al., 2003), and substance dependency (Winkleby & White, 1992) to increase with length of homelessness, even in individuals with no history of problematic substance use (Winkleby & White, 1992). Other studies, however, have suggested that substance use disorders do not increase with duration

of homelessness (Craig & Hodson, 2000; Susser, Struening & Conover, 1989) and that the majority of individuals report using the same amount of drugs or alcohol, or less, after becoming homeless (O'Toole et al., 2004). A number of studies have indicated that the majority of homeless individuals with substance use disorders began to misuse substances prior to becoming homeless (Booth, Sullivan, Koegel & Burnam, 2002; Fichter & Quadflieg, 1999; Koegel & Burnam, 1988; Muñoz et al., 2002; North, Pollio, Smith & Spitznagel, 1998; Odell & Commander, 2000; Toro & Wall, 1991), suggesting that substance use disorders at least merit consideration as a potential vulnerability factor for *becoming* homeless.

Case control studies using samples of newly-homeless individuals, ensure that differences detected between cases and controls are not a product of homelessness itself and therefore provide strong evidence of whether substance use disorders increase risk for becoming homeless. Unfortunately, however, only two such studies appear to have been carried out and report mixed findings. Bassuk et al. (1997) found more frequent alcohol and heroin use within their sample of homeless mothers than in never-homeless poor housed controls but that the presence of substance use disorders did not differentiate the two groups, while Caton et al. (2000) found drug abuse and dependence to be risk factors among single women but that neither drug nor alcohol abuse nor dependence predicted homelessness among single men. Two studies based on the retrospective accounts of homeless samples for the period prior to becoming homeless provide weaker evidence but report more consistent results. Odell and Commander (2000), comparing homeless and never-homeless individuals

with psychotic disorders, found substance use disorders to be predictive of homelessness and Winkleby, Rockhill, Jatulis, and Fortmann (1992), while finding differences between their sample and secondary data on a local poor housed population to be less than expected, similarly found substance abuse to be a significant risk factor. Interestingly, studies based on self-report survey data indicate that considerable numbers of homeless individuals perceive substance use issues to have contributed to them first becoming homeless, with, for example, 63% citing it as one of the reasons they became homeless (Fountain et al., 2003), 58% identifying it as a major reason (O'Toole et al., 2004) and 32% identifying it as the single most important factor (Wright & Weber, 1987).

The majority of studies investigating whether substance use disorders constitute a vulnerability factor for remaining homeless have found this to be the case, with results indicating substance use, abuse or dependence to be predictive of increased duration of homelessness (Booth et al., 2002; Caton, Wyatt, Felix, Grunberg & Dominguez, 1993; Fichter & Quadflieg, 1999; Fichter & Quadflieg, 2003; Geissler, Bormann, Kwiatkowski, Braucht & Reichardt, 1995; Goldfinger et al., 1996; O'Toole et al., 2004; Winkleby et al., 1992), poor accommodation outcome (Craig & Hodson, 2000; Zlotnick, Robertson & Lahiff, 1999), and multiple episodes of homelessness (Booth et al., 2002; Fichter & Quadflieg, 1999). Of the other studies to have been carried out, only one reported no association at all between substance use and length of homelessness (Piliavin et al., 1993); others failed to find substance use disorders to be predictive but found lifetime history of drug treatment (Caton et al.,

2005), or severity of abuse and dependence (North et al., 1998) to be significant. The risk conferred by substance use for chronic homelessness are supported by the findings of Morris (1997), who reports that individuals who had been homeless for an extended period of time were twice as likely as the newly homeless to mention drugs or alcohol as the reason for their homelessness, as well as by a self-report survey (Fountain et al., 2003) and a qualitative study (Morrell-Bellai et al., 2000).

MENTAL HEALTH PROBLEMS

In recent years, the homeless population has increasingly been perceived and portrayed as having poor mental health (Fischer, 1989; Folsom & Jeste, 2002). Some authors have claimed that the process of deinstitutionalisation contributed to the problem of homelessness because the shift in the focus of mental health provision from psychiatric hospitals to community care settings was poorly implemented and there was inadequate provision for long-term care in the community (Jencks, 1994; Torrey, 1988). Whether these changes did result in rising numbers of homeless people with mental health problems is controversial (Fitzpatrick, Kemp & Klinker, 2000), but studies comparing homeless samples with poor housed samples have generally found the homeless to have higher rates of diagnosable mental disorder (Bassuk & Rosenberg, 1988; Breakey, Fischer, Nestadt & Ross, 1990; Craig & Hodson, 1998; Fischer, Shapiro, Breakey, Anthony & Kramer, 1986; Koegel, Burnam & Farr, 1988), current distress (Fischer et al., 1986; Toro et al., 1995), history of mental illness (Wagner & Perrine, 1994) and previous hospitalization for

mental health problems (Bassuk & Rosenberg, 1988; Fischer et al., 1986; Toro & Wall, 1991; Wood et al., 1990). As with substance use disorders and homelessness, the relationship between mental health problems and homelessness appears to be complex. It has been noted that poor mental health may potentially increase individuals' risk of *becoming* or *remaining* homeless but also that a deterioration of mental health may potentially occur as a *consequence* of homelessness.

The specific risk that a mental health problem confers in term of *becoming* or *remaining* homeless is likely to depend greatly on the type and severity of the problem. Buckner, Bassuk, and Zima (1993) note, however, that for diagnostic criteria to be fulfilled, mental health problems must generally impact negatively upon daily functioning in some way (see Diagnostic and Statistical Manual of Mental Disorder-IV-R; American Psychiatric Association, 2000). It has broadly been suggested that mental health problems might increase vulnerability to *becoming* homeless through, for example, adversely affecting the individuals' ability to find and retain housing (Bassuk & Rosenberg, 1988), impairing occupational functioning (Buckner et al., 1993), and contributing to the breakdown of supportive relationships (Crane, 1998). Mental health problems might also increase vulnerability for *remaining* homeless by diminishing the individual's ability to use available services or restricting their access to particular services (Buckner et al., 1993). Many explanations within the literature as to how mental health problems may arise as a *consequence* of homelessness centre around the highly traumatic nature of the experience of losing one's home and living in a homeless hostel or on

the streets (Morrell-Bellai et al., 2000). Homelessness may also be stressful and stress may precipitate or exacerbate mental health problems (Stein & Gelberg, 1995).

The relationship between mental health issues and homelessness is thought to be bi-directional, with mental health problems acting as a risk factor for homelessness and homelessness constituting a risk factor for poor mental health (Buckner et al., 1993; Lamb & Lamb, 1990; Wright, 1987). The literature consistently indicates that for the majority of individuals, the onset of mental health problems precedes the onset of homelessness (Fichter & Quadflieg, 2001; Koegel & Burnam, 1992; Muñoz, Vazquez, Koegel, Sanz & Burnam, 1998; Sullivan, Burnam & Koegel, 2000). It has been pointed out, however, that this finding could be explained by the natural history of psychiatric disorders, whose onset just happens to occur before a certain age and therefore tends to precede adult homelessness (North et al., 1998), and that this pattern provides no evidence of a causal process. In line with the idea that individuals' mental health may deteriorate in response to the situation of being homeless, research has found that rates of clinical disorder increase with duration of homelessness (Martijn & Sharpe, 2006) and psychiatric hospitalisation increases, even in individuals with no apparent psychiatric disorder at onset of homelessness (Winkleby & White, 1992).

Overall, the evidence suggesting that mental health problems increase vulnerability for *becoming* or *remaining* homeless is limited. Case control studies using samples

of newly-homeless individuals, which ensure that differences detected between cases and controls are not a product of homelessness itself, provide mixed findings as to whether mental health problems increase risk of *becoming* homeless. While some studies have found significant differences in rates of psychological disorder (Martijn & Sharpe, 2006) and psychiatric hospitalization (Bassuk et al., 1997; Weitzman, Knickman & Shinn, 1992), others have found no differences in terms of mental illness (Bassuk et al., 1997; Caton et al., 2000; Shinn et al., 1998), severe mental illness (Lehmann et al., 2007), or use of out-patient mental health services (Weitzman et al., 1992). Longitudinal studies, providing evidence of whether mental health problems increase the risk of *remaining* homeless, surprisingly, find no differences in duration of homelessness according to the presence at initial assessment of mental health problems (Fichter & Quadflieg, 2005; Shinn et al., 1998), psychiatric disorder (Caton et al., 2005; Craig & Hodson, 2000; Toro et al., 1995), or history of psychiatric treatment (Caton et al., 2005). Contrary to their hypothesis, Piliavin et al. (1993) found that individuals in their study who had a history of psychiatric hospitalization actually had shorter homeless careers than those who did not.

Taken as a whole, such studies do not suggest mental health problems to be a noteworthy vulnerability factor for becoming or remaining homeless and these findings are supported by studies of homeless people's opinions as to their reasons for their homelessness. Farr, Koegel, and Burnam (1986), for example, found only 3% of their sample to believe that psychological problems contributed to their first

episode of homelessness and Mojtabai (2005) found that homeless persons both with and without mental illness reported similar reasons for their homelessness, most frequently attributing their loss of housing and continued homelessness to insufficient income, unemployment, and the lack of suitable housing.

LACK OF SOCIAL SUPPORT

A large body of literature demonstrating the importance of social support, particularly at times of crisis (Caplan, 1979; Cobb, 1976; Belle, 1983), together with studies suggesting that homelessness is often precipitated by marital or relationship breakdown (Greve, 1991), bereavement (Cohen & Sokolovsky, 1989), or escape from domestic violence (Shinn et al. 1991), has prompted research exploring the relationship between social support and homelessness. 'Social support' is a multifaceted construct, which may be measured by, for example, the size, proximity and amount of contact with one's social network; the perceived availability and adequacy of support; the degree to which key relationships are positive; and the monetary assistance, practical help, advice, encouragement, emotional support and companionship actually experienced (Barrera, 1986; Bates & Toro, 1999; Rook, 1984).

Studies comparing homeless samples with poor housed controls have suggested homeless individuals to have poorer social support across these dimensions, for example in terms of smaller social support networks (Bassuk & Rosenberg, 1988;

Passero, Zax & Zozus, 1991; Tavecchio et al., 1999; Wood et al., 1990), less contact with social networks (Bassuk & Rosenberg, 1988; Fischer et al., 1986; Letiecq, Anderson & Koblinsky, 1996; Sosin, Colson & Grossman, 1988), fewer confiding relationships (Fischer et al., 1986), fewer positive relationships (Anderson & Rayens, 2004; Passero et al., 1991), less adequate family support (Bassuk & Rosenberg, 1988; Caton et al., 1994; Caton et al., 1995), less satisfaction with supportive relationships (Letiecq et al., 1996; Tavecchio et al., 1999), and poorer quality and quantity of support actually received (Anderson & Rayens, 2004; Bassuk & Rosenberg, 1988; Letiecq et al., 1996). As might be anticipated however, the relationship between social support and homelessness is not straightforward and, like the relationships described in the previous two sections, has been recognised as being bi-directional in nature (Shinn, 1992; Toohey, Shinn & Weitzman, 2004): poor social support may potentially increase individuals' risk of *becoming* or *remaining* homeless but equally, social support may deteriorate as a *consequence* of homelessness.

Many explanations as to how a lack of social support may be a risk factor for *becoming* homeless reiterate McChesney's (1987) contention that friends and family act as a critical safety net in preventing homelessness (Bassuk & Rosenberg, 1988; Goodman, 1991b; Letiecq et al., 1996) and appeal to proposals that the onset of homelessness may be prevented or delayed by members of a social network offering help in maintaining or finding housing (Shinn et al., 1991), lending money (Bassuk, 1993), providing emotional support (Shinn et al., 1991), or sharing their own

accommodation (Caton et al., 2005). Thus, the absence of such support arising as a consequence of, for example, deficiencies within the individual's family of origin (Koegel et al., 1995), escape from domestic violence (Goodman, 1991b), or the individual's antisocial behaviour resulting in the withdrawal of social support from friends and family (Smith, Gilford & O'Sullivan, 1998), is likely to increase vulnerability to becoming homeless.

Similarly, it is suggested that a lack of social support may increase risk for *remaining* homeless because support provided by family or friends is likely to play a critical role in helping homeless individuals through the process of regaining accommodation (Letiecq et al., 1996) and its absence is likely to be disadvantageous. In terms of poor social support arising as a *consequence* of homelessness, it has been observed that services for homeless people such as hostels, may be some distance from the individual's previous home and that contact with friends and family may be restricted by a lack of funds for telephone calls or transportation (Toohey et al., 2004); support is therefore likely to be sought from other homeless individuals, who are unlikely to be in a position to help the person get out of their homeless situation (Morrell-Bellai et al., 2000).

The evidence regarding social support as a potential vulnerability factor for *becoming* homeless has been mixed. Several studies have suggested that individuals presenting as homeless report poorer social support than control groups in terms of having fewer network members (Bassuk et al., 1997), more conflicted relationships

(Bassuk et al., 1997), fewer relatives living within the geographical area (Lehmann et al., 2007), less income support from family (Caton et al., 2000) and less trust in their social networks (Goodman, 1991b). Others however, have found no differences in terms of size or composition of social networks (Goodman, 1991b), degree of contact with social networks (Goodman, 1991b), nature of support received (Goodman, 1991b; Lehmann et al., 2007), or the presence of an emotional support network (Lehmann et al., 2007). Shinn et al. (1991) actually found that those presenting as homeless reported greater recent contact with family or friends, although they felt unable to use these resources for help with their current housing needs.

Drawing conclusions from these findings is rendered difficult by suggestions that the results of studies using newly-homeless individuals may be open to interpretation. Shinn et al. (1991), for example, found that more than three quarters of their sample had stayed with members of their social network in the past year and therefore interpreted the fact that these individuals were unable to gain further help not as suggesting a general lack of social support but as suggesting that they had simply 'worn out their welcome' by this time. Thus, the over-reliance on previously sound networks (Toohey et al., 2004) and the stress of sharing housing in order to avoid homelessness (Bassuk, 1993) may result in the deterioration of social support networks prior to the individual actually becoming homeless and introduce the risk of assumptions being made that poor social support was present at an earlier point in time. Shinn et al. (1991) also note that such studies may be biased by the fact that

individuals are in a period of crisis and therefore likely to have been calling on all possible supports for help which may, alternately, suggest greater social contact than is usually the case for them.

Longitudinal studies reported within the literature provide a strong indication that a lack of social support is associated with increased duration of homelessness, with only one finding suggesting perceptions of support to be un-associated with duration of homelessness (Zlotnick, Tam & Robertson, 2003). Research has found greater size and material contributions of social network (Latkin, Mandell, Knowlton, Vlahov & Hawkins, 1998), greater support from family or friends (Calsyn & Winters, 2002; Caton et al., 2005; Zlotnick et al., 2003) and simply being in contact with one's mother (Latkin et al., 1998) to be predictive of shorter periods of time spent homeless. Caton et al. (2005) found that amongst participants who were able to exit homelessness, the most common type of living arrangement was with family or friends and that time spent homeless was shorter among those who returned to live with family or friends, suggesting that social support may often reduce vulnerability for remaining homeless in a very direct way.

CRIMINAL ACTIVITY

Although the findings of studies on criminal activity within the homeless population vary enormously (Eberle, Kraus, Pomeroy & Hulchanski, 2000), studies consistently reveal a rate of arrests far in excess of the general population (Desai, Lam &

Rosenheck, 2000; Snow, Baker & Anderson, 1989), significantly higher numbers of previous arrests (Fischer et al., 1986; Tolomiczenko & Goering, 2001) and histories of incarceration (Burt et al., 1999; Kushel, Hahn, Evans, Bangsberg & Moss, 2005; Rossi & Wright, 1989). This might be expected, given the substantial overlap in the demographic profiles of the homeless and prison populations; compared to the general population both contain a disproportionately large number of young people, males and individuals from ethnic minorities (Burt, Aron, Lee & Valente, 2001; Culhane & Metraux, 1999; Langan & Levin, 2002; Mauer, 1999) and poverty and unemployment are endemic to both situations (Lichtenstein & Kroll, 1996; Western & Beckett, 1999). However, with the exception of one study (Toro et al., 1995), studies comparing the homeless to more appropriate control groups, such as those living in poverty and at risk for homelessness, also find an elevated rate of criminal involvement (Burt et al., 2001; Caton et al., 1994; Craig & Hodson, 1998). The association between criminal activity and homelessness could, of course, arise because criminal activity increases individuals' risk of *becoming* or *remaining* homeless but it may also be that involvement in crime tends to occur as a *consequence* of homelessness.

Explanations as to how crime increases vulnerability to *becoming* or *remaining* homeless have tended to focus on imprisonment, which it is argued increases vulnerability by disrupting family and community contacts and decreasing employment and housing prospects (Freudenberg, 2001; Shinn, 2007; Solomon & Draine, 1999). Criminal behaviour which is antisocial in nature may be particularly

likely to result in the withdrawal of social support from friends and family (Smith et al., 1998). Theories as to how crime may occur as a *consequence* of homelessness have been more abundant. Some authors suggest that homelessness is a 'criminogenic' situation (McCarthy & Hagan, 1991) in which criminal activities such as begging, prostitution, substance use and theft are strategies of 'survivalism', undertaken in the attempt to get needed shelter or food or to cope with the situation of being homeless (Carlen, 1996). Others have claimed that homeless people are more likely to be arrested, due to their increased visibility, and due to efforts to remove them from public sight (Fischer, 1992a) or that the prison system is seen by some homeless individuals as a default form of shelter and alternative source of care (Breakey & Fischer, 1990), a gateway to medical, dental and psychological services that are generally hard for them to access (Vitelli, 1993).

It is unclear whether criminal activity generally precedes homelessness, or is a consequence of it (Fischer, 1992b). Studies have found the self-report of homeless adults to be indicative of exceptionally high rates of childhood conduct disorder (Desai et al., 2000) and to suggest that the overwhelming majority of antisocial behaviour occurs prior to the onset of first homelessness (North, Smith & Spitznagel, 1993). There is also evidence suggesting that up to 40% of prisoners expect to be homeless upon release (Carlisle, 1996), which in Britain has prompted sufficient concern as to result in specific action points within government initiatives such as 'Supporting People' (Office of the Deputy Prime Minister, 2003). However, figures are not yet available to provide clear evidence as to whether additional

services for prison-leavers do result in reduced homelessness (Office of the Deputy Prime Minister, 2005) and research based on the self-report of homeless youths indicates that criminal behaviour does not generally precede the initial onset of homelessness (Martijn & Sharpe, 2006; McCarthy & Hagan, 1991). It may be that a proportion of the homeless population are caught in a 'revolving door' between the streets, hostels and prisons (Randall & Brown, 1999), making it difficult to discern whether criminal activity or homelessness occurred first.

The literature providing evidence of whether criminal activity is a vulnerability factor for *becoming* homeless is extremely limited. Bassuk et al. (1997) found significantly more of their sample of newly-homeless mothers to have been imprisoned in the past year in comparison with poor housed controls, but when entered into a multivariate model, imprisonment did not emerge as a predictive factor. On the basis of retrospective accounts of the period prior to homelessness, Odell and Commander (2000) found a significantly greater number of arrests and convictions in homeless individuals with psychotic disorders than in controls but whilst controls were recruited from an inner city area they weren't necessarily at risk for homelessness. The literature provides much stronger evidence of criminal activity being a risk factor for *remaining* homelessness, however. Case control studies indicate criminal involvement (Stein & Gelberg, 1995), arrest history (Caton et al., 2005), and incarceration history (McGuire & Rosenheck, 2004) to be significantly associated with a longer duration of homelessness, and offending and

antisocial behaviour of young homeless people to be predictive of poorer accommodation outcomes (Craig & Hodson, 2000).

MODELS

Over the past two decades, a variety of models relating to homelessness have been published within the literature. Models considered to 1) provide an organisational framework for micro-level vulnerability factors for homelessness, 2) describe the relationship between specific micro-level vulnerability factors and homelessness, or 3) elucidate the relationships between two or more micro-level vulnerability factors, were selected for review and are presented in Table 1, following page, arranged chronologically by publication date. As can be observed, some of these models were not specifically developed with the aim of explaining the relationships between vulnerability factors for homelessness but were included in the review because they nevertheless make an important contribution to this endeavour (e.g. Stein et al., 2002; Wong & Piliavin, 2001). Within the models there is enormous variation in terms of evidence base, group to which the model is intended to be applicable, theoretical perspective employed, degree of specificity and overall complexity. Naturally, broader models have tended to be derived from literature reviews and have been created to provide a theoretical framework which generates research questions (Susser et al., 1993), allows research findings to be understood in a broader context (Zlotnick et al., 2003) or enables conceptual distinctions to be made

Table 1. *Models incorporating micro-level vulnerability factors for homelessness*

Study	Origin	Sample	Data source	Methodology	Key variables	Theory/model	Key elements
Benda (1990)	USA	313 homeless men 131 homeless women	Structured interviews	Comparative study	Present or history of: Criminal activity Psychiatric problems Drug/alcohol problems	'Drift down' hypothesis	Study partially confirms that the listed variables are vulnerability factors for onset of homelessness via a 'drift down' process. Some differences found in patterns for men and women.
Buckner (1991)	USA	N/A	Literature review	N/A	Lack of monetary or social resources Alcohol, drug abuse and mental disorders Childhood abuse	Pathways into homelessness	Distinguishes precipitating, proximal and distal risk factors according to the proximity of variables to the outcome of homelessness.
Milburn & D'Ercole (1991)	USA	N/A	Literature review	N/A	Major stressors: Housing instability Poverty Work stress and unemployment Victimization Mediators of stressors: Social support Coping	A model of risk factors for homelessness among women	Applies a model of the stress process (Pearlin, Lieberman, Menaghan & Mullan, 1981) to homelessness among women, conceptualising risk factors for homelessness as major stressors and protective factors as mediators of stressors.
Susser, Lin, Conover & Struening (1991)	USA	512 homeless adults with present or past history of psychiatric hospitalization 271 housed psychiatric inpatients	Structured interviews/ questionnaire	Comparative study	Childhood experiences: Foster care Group home placement Running away	Causal model of childhood foster care and adult homelessness.	Former foster children are more vulnerable to homelessness in adulthood due to less effective kin support. The relationship between group home placement/running away and homelessness is mediated by individual dysfunction (e.g. drug abuse).

Study	Origin	Sample	Data source	Methodology	Key variables	Theory/model	Key elements
Piliavin, Sosin, Westerfelt & Matsueda (1993)	USA	331 homeless adults	Question-naires	Structural equation modelling	Institutional disaffiliation Psychological dysfunction Human capital deficit Cultural identification	Model of the duration of homeless careers	Conditioned on age, people with less consistent work histories and experiences of childhood foster care have longer homeless careers. Pre-homeless psychiatric hospitalization was predictive of shorter careers. The presence or absence of severe alcoholism was not predictive of length of career.
Susser, Moore & Link (1993)	USA	N/A	Literature review	N/A	Background factors Childhood Young adult life Conditions of later life	Pathways into homelessness	Framework chronologically organising risk factors into four stages of life. Includes macro-level factors (job market and housing market conditions).
Rosenheck & Fontana (1994)	USA	1,460 male veterans	Longitudinal data set	Structural equation modelling	Pre-military risk factors War and non-war related trauma Lack of social support on military discharge Post-military psychiatric disorder or social dysfunction	A model of homelessness among male veterans of the Vietnam-war generation	Individual vulnerability to homelessness is due to a multiplicity of factors, with independent influences emerging at each of four discrete time periods. Post-military social isolation, psychiatric disorder and substance abuse have the strongest direct effects on homelessness.
Bassuk et al. (1997)	USA	220 homeless mothers 216 controls	Structured interviews	Multiple regression analyses	Sociodemographic characteristics Childhood factors Proximal risk factors Precipitating risk or protective factors	Risk and protective factors for family homelessness	Adapted framework of Susser, Moore, and Link (1993). Include public sector assistance for low-income factors as a macro-level factor.

Study	Origin	Sample	Data source	Methodology	Key variables	Theory/model	Key elements
Johnson, Freels, Parsons & Vangeest (1997)	USA	303 homeless and marginally housed adults	Structured interviews	Multiple regression analyses	Substance abuse Homelessness	Model of the relationship between substance abuse and homelessness	Models of both social selection and social adaptation processes are necessary to account for the association between homelessness and substance abuse. A multi-directional model in which substance abuse and homelessness are risk factors for one another is appropriate.
Craig & Hodson (1998)	UK	161 homeless youths 107 controls	Structured interviews	Comparative study	Childhood adversity and/or conduct disorder Poor educational attainment Psychiatric disorder	Tentative model of risk factors for youth homelessness	Childhood experiences, educational attainment and psychiatric disorder are each independently associated with increased risk of becoming homeless. Causal pathways warrant investigation.
Cohen (1999)	USA	N/A	Literature review	N/A	Sixteen individual risk factors Five structural and programmatic variables	Provisional model of homelessness and aging	Informed by Susser, Moore, and Link's (1993) model. An earlier version was tested on a sample of older homeless women and found to be highly significant (Cohen, Ramirez, Teresi, Gallagher & Sokolovsky, 1997). Risk factors for homelessness accumulate over a lifetime; individual risk factors of middle and late life are noted. The processes implicated in homelessness and prolonged homelessness are distinguished.

Study	Origin	Sample	Data source	Methodology	Key variables	Theory/model	Key elements
Tavecchio, Thomeer & Meeus (1999)	The Nether-lands	108 homeless youths 1313 controls	Structured interviews	Predictive study using discriminant analysis	Family background Parental style Experiences of separation and loss Attachment style Social support Homelessness	A model of the relationships between attachment, social networks and youth homelessness	Draws on attachment theory (Bowlby, 1969).The lack of a secure attachment relationship with one or more carers in childhood is a risk factor for homelessness. A social network is, however, a protective factor.
Wong & Piliavin (2001)	USA	430 homeless adults	Structured interviews	Structural equation modelling	Sources of stress: Childhood life events Victimization Health problems Chronic homelessness Mediators of stress: Social resources Housing resources Manifestation of stress: Distress symptoms	Model for the prediction of distress symptoms	Pearlin et al.'s (1981) conceptual model of the stress process is applicable to homeless adults. The relationships among stressors, resources and distress for homeless persons may be understood within the same analytical framework as for the general population.
Calsyn & Winter (2002)	USA	3,930 homeless adults with severe mental illness	Longitudinal data set	Structural equation modelling	Social support Stable housing	Path model of support and stable housing	Social support has a facilitative effect in ending episodes of homelessness.

Study	Origin	Sample	Data source	Methodology	Key variables	Theory/model	Key elements
Stein, Leslie & Nyamathi (2002)	USA	581 homeless women	Structured interviews	Structural equation modelling	Childhood factors: Abuse Parent substance use Adulthood factors: Physical abuse Self-esteem Chronic homelessness Depression Drug and alcohol problems	Model of the relationships between the listed significant variables within homeless women	Chronic homelessness is directly predicted by childhood abuse but this relationship is also mediated by physical abuse in adulthood.
Vangeest & Johnson (2002)	USA	481 homeless and marginally housed adults	Structured interviews	Structural equation modelling	Substance abuse Disaffiliation Human capital Homelessness	Model of the relationships between the listed key variables	Substance abuse does not directly increase risk for homelessness. It increases risk by limiting social and institutional affiliations. Substance abuse does not indirectly influence transitions to homelessness by limiting the accumulation of human capital (education, skills and employment).
Tam, Zlotnick & Robertson (2003)	USA	397 homeless adults	Longitudinal data set	Structural equation modelling	Childhood events Substance use disorders Social service use Labour force participation	Path model predicting labour force participation in homeless adults	Adverse childhood events were precursors to adulthood alcohol and drug use. Consistent substance use was negatively associated with long-term labour force participation and with social service utilization. Adverse events in childhood, however, were positively associated with service use.

Study	Origin	Sample	Data source	Methodology	Key variables	Theory/model	Key elements
Zlotnick, Tam & Robertson (2003)	USA	N/A	Literature review	Description and diagrammatic presentation of conceptualisations within the literature	Impaired function Low human capital Disaffiliation Cultural identification Diminished economic resources	Conceptual model of homelessness	Five domains contribute to risk for homelessness: (1) impaired function, resulting from substance use and mental illness; (2) low human capital such as poor job history and lack of education; (3) disaffiliation from society, family and friends; (4) cultural identification with homelessness; and (5) diminished economic resources indicative of very little income.
Martijn & Sharpe (2006)	Australia	35 homeless youths	Semi-structured interviews	Quasi-qualitative methodology	Psychological disorder Trauma Drug and alcohol problems Crime Family problems	Pathways to youth homelessness	Identifies five pathways defined by particular combinations of precipitant factors for homelessness: (1) drug and alcohol problems and trauma, with or without additional psychological problems; (2) trauma and psychological problems in the absence of drug and alcohol problems; (3) drug and alcohol and family problems; (4) family problems; and (5) trauma. Identifies 'trajectories' following onset of homelessness and charts the relationships between the pathways and trajectories.

Study	Origin	Sample	Data source	Methodology	Key variables	Theory/model	Key elements
Warnes & Crane (2006)	UK	131 homeless adults over 50 years of age	Semi-structured interviews	Descriptive	Housing /neighbourhood problems Interpersonal difficulties Financial problems Personal problems	Pathways into homelessness among older people	Identify five 'packages of reasons' that create distinctive 'pathways' into homelessness: (1) problems with the condition of the housing or its tenure, (2) the breakdown of a marital or cohabiting relationship, (3) financial problems and rent arrears, (4) problems with co-tenants and neighbours, and (5) death of a relative or close friend. The fifth pathway is suggested to be distinctive to middle and later life.
Lehmann, Kass, Drake & Nichols (2007)	USA	N/A	Literature review	Description and diagrammatic presentation of the authors' conceptualisation based on the literature	Personal risk factors Family instability First-time homelessness Repeated homelessness	Model differentiating between causes of first-time homelessness and repeated homelessness in women	Housing and economic instabilities are the primary causes of first-time homelessness, although family instability and personal risk factors contribute to increased risk. Conversely, the transition from first-time homelessness into a cycle of repeated homelessness is mediated primarily by personal risk factors.

(Lehmann et al., 2007). Models based on the findings of individual studies on the other hand, have tended to be more scientifically rigorous but include a more limited number of vulnerability factors and therefore explain only some of the relationships under consideration.

Of models seeking to provide a framework for factors influencing individuals' risk of homelessness, Zlotnick et al. (2003) offer what is perhaps the least complex. The model (see Figure 1, following page), which may be generally applied, is introduced as a means of explaining how the authors conceive of disaffiliation, the risk factor to be considered within their study, as one of five domains contributing to risk for homelessness. Vulnerability factors for homelessness are thus grouped into five major areas: *impaired function* resulting from substance use or mental illness; *low human capital* such as poor job history and lack of education; *disaffiliation* from society, family and friends; *cultural identification* with homelessness; and *diminished economic resources* indicating a low income or difficulty in obtaining affordable housing. The model has great utility in providing readers with a contextual background and in offering a system for grouping vulnerability factors according to potentially shared outcomes. At the same time, however, the model could receive criticism for failing to group vulnerability factors according to chronological order or illustrate changes in vulnerability factors which may occur over the lifespan.

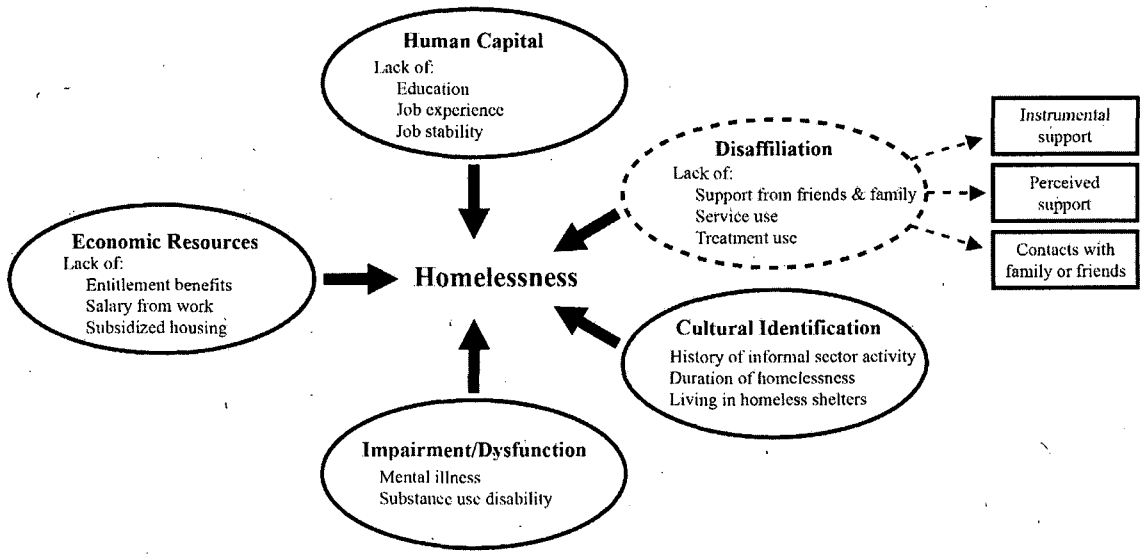

Figure 1. *Conceptual model of homelessness proposed by Zlotnick, Tam, and Robertson (2003).*

Buckner (1991), for example, distinguishes variables in terms of their proximity to the outcome of homelessness: *precipitating* risk factors, such as a lack of monetary resources or support from others who are willing to provide or share housing, are those that bear an immediate and obvious relationship to homelessness; *proximal* risk factors, such as substance abuse, occur further back in the causal chain but have a clear and direct causal relationship with precipitating factors; while *distal* risk factors, occurring for example in childhood, cause or heighten the probability of manifestation of one or more proximal variables. Susser et al., (1993) attempt to convey the temporally dynamic nature of individual vulnerability in their model (see Figure 2, following page) which sequentially orders vulnerability factors, placing more distal factors that are present at birth or occur early in individuals' lives at the left side of the model, and precipitating factors towards the right. A key strength of

this framework is that it clearly demonstrates how risk for homelessness in adulthood may be a product not only of current life circumstances, but of accumulated life experiences up to the present time.

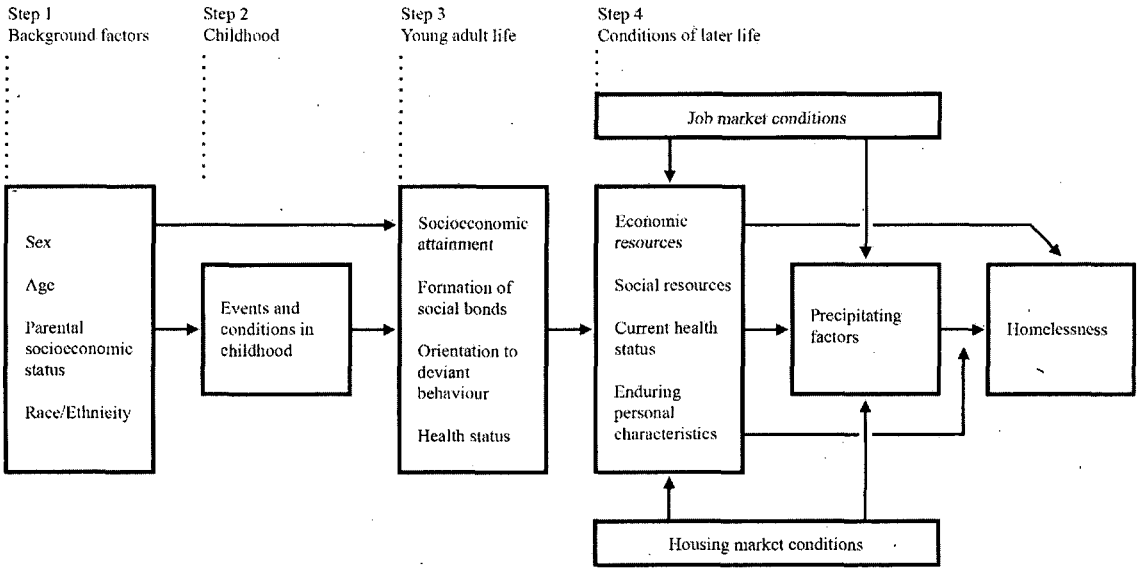

Figure 2. *Model of pathways into homelessness proposed by Susser, Moore, and Link (1993).*

Bassuk et al. (1997) adapt Susser et al.'s model for family homelessness, simplifying the causal pathways somewhat but presenting risk and protective factors anticipated to be of pertinence to this section of the homeless population within a similar structure. Comparable ideas are also evident in the model of homelessness among male veterans of the Vietnam-war generation presented by Rosenheck and Fontana (1994), hypothesised on the basis of the previous literature, but confirmed through structural equation modelling. In this model vulnerability factors are grouped into four sets of sequential variables: 1) pre-military risk factors, 2) war and non-war

related traumatic experiences during the period of service, 3) lack of social support at the time of discharge from military service, and 4) post-military psychiatric disorder and social dysfunction.

Taking the concept that different vulnerability factors may be of particular significance with respect to homelessness at different stages of the life span one step further, several authors have proposed models specifically for older and younger age groups. Cohen (1999), for example, acknowledges that the model he proposes on aging and homelessness (see Figure 3, following page) is in part derived from that of Susser et al. (1993) but suggests that a new model is needed for older people so as to include the individual risk factors of middle and late life. Warnes and Crane (2006) similarly propose a model for homelessness among older people, finding from semi-structured interviews that the death of a relative or close friend is frequently a precipitant of homelessness among those over fifty and suggesting that a higher frequency of such experiences is distinctive to middle and later life. Craig and Hodson (1998), focusing on youth homelessness, put forward a tentative model of risk factors giving weight to, for example, adverse childhood experiences, poor educational attainment and the presence of conduct disorder, observing that such factors are unlikely to be distant in time for this age-group. Martijn and Sharpe (2006), responding to Craig and Hodson's call for further investigation into vulnerability factors for youth homelessness, outline another model for young people highlighting drug and alcohol, trauma, psychological and family related problems to be of significance.

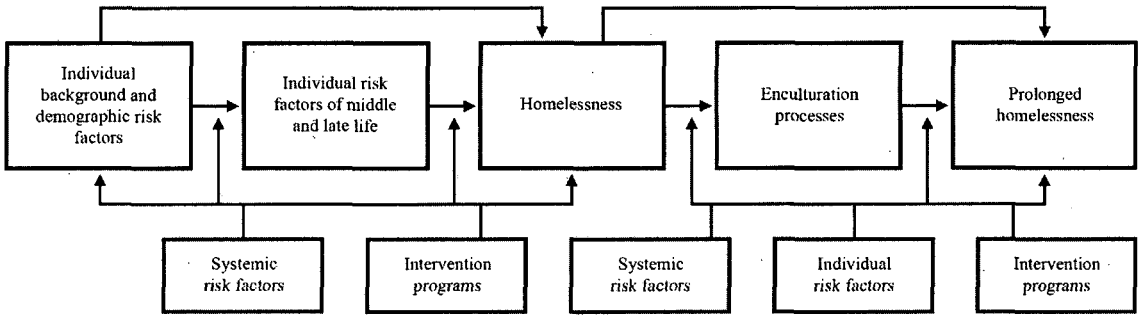

Figure 3. *Model of homelessness and aging proposed by Cohen (1999).*

Interestingly, both Warnes and Crane (2006) and Martijn and Sharpe (2006) describe their models in terms of 'pathways' into homelessness, suggesting that risk is not simply accumulated over time but that particular micro-level vulnerability factors are more strongly associated than others, making distinct patterns observable in the retrospective accounts of homeless people. A similar idea is evident in the work of Benda (1990) who found some difference between the routes to homelessness for men and women, with men tending to be more involved in crime and alcohol abuse. The notion that vulnerability factors have unique relationships with one another has certainly received support from studies examining limited numbers of variables (Stein et al., 2002; Tam, Zlotnick & Robertson, 2003; Wong & Piliavin, 2001). Such studies have tended to generate complex models and in some cases have demonstrated there to be bi-directional relationships between some variables (Johnson et al., 1997).

Another element introduced by some models has been to not only include vulnerability factors for homelessness but to also identify protective factors which

reduce risk. While some authors present a single set of factors which may be vulnerability factors *or* protective factors, increasing or decreasing risk according to their presence or absence (Bassuk et al., 1997), others highlight particular variables as having protective value. Milburn and D'Ercole (1991) provide an example of this in their application of a model of the stress process (Pearlin, Lieberman, Menaghan & Mullan, 1981) to homelessness among women. Within Milburn and D'Ercole's model, vulnerability factors are treated as being analogous to major stressors and protective factors conceptualised as mediators of stressors. Protective factors are thus separated out and described to include social support and coping skills. Cohen (1999) goes one step further in including intervention programs as a protective factor within his model, recognising that services may play an important role in reducing risk of homelessness.

A final dimension to have been included in some models of homelessness has been the differentiation of vulnerability factors implicated in individuals becoming and remaining homeless. Cohen (1999) and Lehmann et al. (2007) (see Figure 3, previous page, and Figure 4, following page, respectively) incorporate this within their models, albeit in different ways. Cohen's model visually represents how systemic risk factors and intervention programs may be important both in the processes leading up to homelessness (on the left hand side of the diagram) and in the process by which homelessness becomes prolonged (in the right hand side of the diagram). While individual risk factors are of central importance in the process of *becoming* homeless, however, in the path to prolonged homelessness they play a role

that is secondary to 'enculturation processes', the process of adaptation to a homeless environment. Conversely, Lehmann et al. (2007) depict individual risk factors as subservient to macro-level factors such as economic and housing instability in the process leading to first-time homelessness, while individual risk factors play an integral role in determining whether an individual is re-housed permanently or endures repeated homelessness.

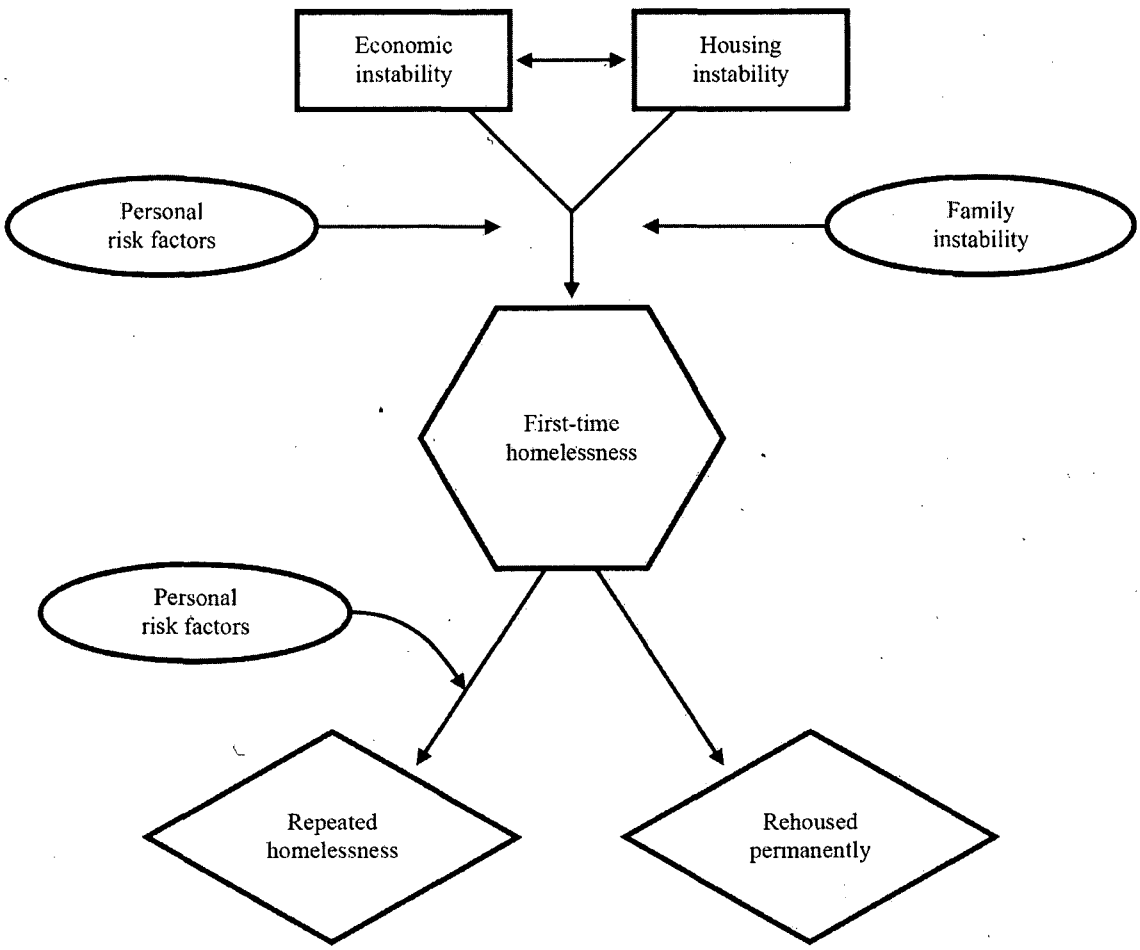

Figure 4. *Model differentiating between causes of first-time homelessness and repeated homelessness proposed by Lehmann, Kass, Drake, and Nichols (2007).*

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

To date, limited research has been carried out into micro-level vulnerability factors for homelessness, as is evident from the in-depth review of each of the five selected areas. Childhood has received relatively great interest as an area of potential risk, particularly in terms of adverse parenting experiences, and on the basis of the current review it would appear likely that such experiences affect risk for homelessness in adulthood. Unfortunately however, evidence regarding each of the four areas relating to adulthood is severely restricted by the fact that substance use disorders, mental health problems, poor social support and criminal activity could potentially act as vulnerability factors for homelessness *and* be consequences of homelessness, and studies using suitable methodologies to isolate their capacity as vulnerability factors make up only a fraction of the total number carried out. Generally, a greater number of studies have investigated risk for *becoming* homeless than *remaining* homeless, and findings would appear to be best described as mixed, making it difficult to arrive at firm conclusions. The exception to these assertions would perhaps be the area of substance use disorders, where evidence for substance use disorders constituting a micro-level vulnerability factor for remaining homeless appears to be particularly strong.

Models of micro-level vulnerability factors presented within the literature introduce a number of theories as to how risk factors may be interrelated and how they may result in homelessness. Strong evidence regarding the specific relationships between

factors has, however, been generated by relatively few studies and further research is warranted to shed light on how increased risk for homelessness in one area may confer increased risk within another. The idea of risk for homelessness as being affected by factors operating at different points in time (Buckner, 1991) or at different stages of the lifespan (Susser et al., 1993) appears to have received special attention and invites particular investigation as to how distal, proximal and precipitating risk factors might be related. Koegel et al. (1995), for example, in tune with the findings of the current review with respect to the strength of evidence for childhood risk factors, call for further study of the mechanisms and pathways by which childhood risk factors are translated into adult behaviours which increase risk for homelessness.

Writing from the perspective of clinical psychology, it is noted that few researchers have explored psychological processes as potential mediators in the relationships between micro-level vulnerability factors for homelessness. Explanations of the relationship between childhood risk factors and vulnerability factors in adulthood, for example, have tended to be speculative and have not typically been based upon an empirical investigation of the mechanisms through which past experience is transformed into future behaviour. Psychological models offer various potential mediating factors and therefore suggest possibilities for the focus of future research addressing this gap in the literature. Cognitive Behaviour Therapy (Beck, 1993), for example, suggests unhelpful cognitions to be of primary importance, while psychodynamic psychotherapy (Malan, 1999) suggests that we should be concerned

with the unconscious content of individuals' psyches, Dialectical Behaviour Therapy (Linehan, 1993) suggests that we should consider individuals' skills, and Acceptance and Commitment Therapy (Hayes, Strosahl & Wilson, 1999) suggests that we investigate experiential avoidance. Research into micro-level vulnerability factors for homelessness per se would seem valuable but this area would appear particularly ripe for future investigation as increased understanding of the psychological processes linking vulnerability factors would not only make an important contribution to the literature but also potentially add to the scant evidence base for psychological therapies with individuals who are homeless or at risk of future homelessness.

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EMPIRICAL PAPER

The relationships between childhood attachment, experiential avoidance and alcohol dependence in the homeless population

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(See Appendix B for Notes to Authors)

ABSTRACT

Objectives: This study investigated the relationships between childhood attachment, experiential avoidance and alcohol dependence in the homeless population. It was hypothesized that experiential avoidance would mediate the relationship between childhood attachment and alcohol dependence. More specifically, it was hypothesized that associations would be found between *poorer* childhood attachment, *higher* levels of experiential control and *higher* levels of alcohol dependence.

Design: A non-experimental design was utilized. In order to test the hypothesized mediator model a series of regression analyses were performed in accordance with the method outlined by Baron and Kenny (1986).

Methods: Data was collected by self-report measures. Participants were recruited through five different services for homeless people in Southampton. Fifty homeless men and ten homeless women elected to take part in the study.

Results: A significant association was not found between childhood attachment and alcohol dependence. Significant relationships were, however, found to exist between both childhood attachment and experiential avoidance, and experiential avoidance and alcohol dependence. The direction of these relationships was as hypothesised.

Conclusions: As no significant association was found to exist between childhood attachment and alcohol dependence there was consequently no relationship that could be mediated by a third variable. Significant findings with regard to the other

two relationships investigated, however, make an important contribution to the burgeoning literature regarding the phenomenon of experiential avoidance.

INTRODUCTION

Over recent decades, research has been devoted to the investigation of factors implicated in homelessness and progress has been made in identifying variables of potential significance (Muñoz, Vázquez, Panadero & de Vicente, 2005). Within the literature many authors make a conceptual distinction between 'macro-level' factors such as poverty and the shortage of low-cost housing, which are thought to explain the existence of homelessness, and 'micro-level' factors such as poor childhood attachment and alcohol dependence, which are seen as increasing individual risk for homelessness (Bassuk et al., 1997). Micro-level vulnerability factors appear to have received particular attention, perhaps in response to suggestions that an improved understanding will be of value in informing appropriate services working with individuals who *are* homeless or *at risk* of becoming homeless (Rosenberg, Solarz & Bailey, 1991). A number of models of homelessness illustrating hypothesised relationships between micro-level variables have been proposed (e.g. Susser, Moore & Link, 1993). Relatively few empirical studies, however, have examined the relationships between micro-level vulnerability factors or the psychological processes that might mediate these relationships and this study therefore seeks to investigate the relationships between childhood attachment, experiential avoidance and alcohol dependence within the homeless population.

Childhood attachment and homelessness

There is growing evidence within the literature that poor childhood attachment experiences constitute a risk factor for homelessness in adulthood. Attachment theory, originating in the work of Bowlby (e.g 1969, 1973, 1980) and Ainsworth (e.g. Ainworth, Blehar, Waters & Wall, 1978) emphasizes the importance of the bond between parent and child, and suggests that such 'attachment' relationships in childhood have a significant impact on individuals' lives from the cradle to the grave (Bowlby, 1979). Drawing on Bowlby's description of positive 'attachment' relationships between parent and child as being contingent upon the parent's provision of a 'secure base' and their encouragement of the child to explore and progressively distance themselves (e.g. Bowlby, 1976), many researchers have evaluated childhood attachment in terms of the corresponding concepts of parental care and parental control. Homeless samples have typically been found to report lower levels of parental care (Tavecchio, Thomeer & Meeus, 1999) and higher levels of parental control (Schweitzer, Hier, & Terry, 1994), a style of parenting which has been characterized as 'affectionless control' and is the antithesis of 'optimal parenting' (Parker, Tupling & Brown, 1979). Studies have also suggested experiences associated with poor attachment relationships with caregivers to be disproportionately represented within the homeless including, for example, childhood abuse (Toro et al., 1995) and placement in care (Herman, Susser, Struening & Link, 1997).

Alcohol dependence and homelessness

There is also evidence within the literature to suggest that alcohol dependence[2] is a risk factor for becoming (Odell & Commander, 2000; Winkleby, Rockhill, Jatulis & Fortmann, 1992), and remaining (Caton, Wyatt, Felix, Grunberg & Dominguez, 1993; Fichter & Quadflieg, 2003; Goldfinger et al., 1996) homeless. It has been suggested that it might increase vulnerability to homelessness through, for example, draining economic resources (Teesson, Hodder & Buhrich, 2003); impacting negatively on the ability to obtain or maintain a job (Buckner, 1991); eroding relationships with friends, family and partners (Baumohl & Huebner, 1991); increasing risk of exclusion from hostels (Thompson, 1987), and impairing the individual's ability to negotiate the bureaucratic barriers to regain accommodation (Robertson, 1991).

Pathways to homelessness

Because childhood risk factors for homelessness such as poor childhood attachment experiences are 'distal', typically occurring years before the onset of adult homelessness, attempts to explain how they increase risk have tended to focus on their impact on more 'proximal' risk factors (Buckner, 1991). This is evident, for example, within theoretical models of homelessness proposed by Susser, Moore, and Link (1993) and Bassuk et al. (1997). In accordance with this it has been suggested

[2] Studies reported within the literature employ an assortment of constructs, definitions and measures with regard to the problematic use of alcohol. For ease, however, the term 'alcohol dependence' will be used within this paper. This term is defined diagnostically within DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, 4th edition; American Psychiatric Association, 2000) and ICD-10 (International Classification of Diseases, World Health Organisation, 1992), but 'alcohol dependence' may also be conceived of in terms of a continuum, enabling the degree of any individual's alcohol dependence to be measured (Raistrick, Dunbar & Davidson, 1983).

that adverse childhood experiences might increase vulnerability to homelessness in adulthood through elevating individuals' risk for substance use disorders in adulthood (Herman et al., 1997). Within such a conceptualisation, poor childhood attachment experiences might be hypothesised to increase risk for homelessness through increasing risk for alcohol dependence, as illustrated within Figure 5, below, which represents the potential relationships between variables in this theoretical pathway to homelessness.

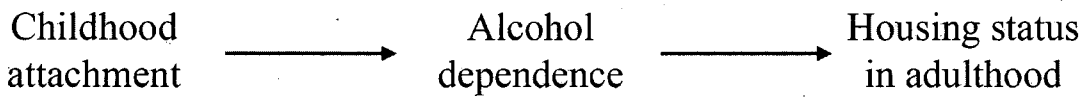

Figure 5. *Diagram representing alcohol dependence as mediating the relationship between childhood attachment experiences and housing status in adulthood, informed by the theoretical pathway to homelessness suggested by Herman et al., (1997).*

Childhood attachment and alcohol dependence

Support for the premise that poor childhood attachment experiences increase risk for alcohol dependence can be found in the literature relating to housed populations, which has found adults with alcohol-related problems to retrospectively report low levels of parental care (Gerra et al., 2004; Gomez, 1984; Mak & Kinsella, 1996) and high levels of parental control (Bernardi, Jones & Tenant, 1989; Joyce et al., 1994). This suggests that experiencing the parenting style of 'affectionless control' may predispose children to alcohol dependence in adulthood and is congruent with other

research which has supported the theory that 'affectionless control' is of detriment by consistently finding it to be associated with a range of disorders in adulthood (e.g. Hafner, 1988; Parker, 1979, 1981, 1983a; Zweig-Frank, 1991).

In efforts to explain the relationship between childhood attachment experiences and alcohol dependence, several authors (e.g. Cooper, Shaver & Collins, 1998; McNally, Palfai, Levine & Moore, 2003; Schindler et al., 2005) have drawn on ideas from attachment theory (Bowlby, 1969, 1973, 1980) and the self-medication hypothesis (Khantzian, 1982) and proposed a causal pathway that incorporates both of these theories. According to Bowlby (1969), early attachment experiences exert influence in adulthood through their contribution to the development of 'internal working models', which amongst other things provide unwritten rules for how one experiences, expresses, and copes with distressing emotions. Poor childhood attachment experiences are, therefore, likely to result in an individual having greater difficulty in tolerating or alleviating difficult thoughts and feelings (Sroufe, 1996). Complementing this, Khantzian (1982) conceives of dependence upon alcohol as the use of alcohol as self-medication for distress, a pathological method of emotion regulation to which the individual is presumably more likely to resort if they tend to have difficulties in coping with their thoughts and feelings.

Experiential avoidance as a potential mediator in the relationship between childhood attachment and alcohol dependence

In recent years, however, *experiential avoidance* has been proposed as a psychopathological process (e.g. Hayes et al., 2004) which could be seen as offering a broader theoretical framework within which the association between poor childhood attachment experiences and alcohol dependence in adulthood might be explained. Experiential avoidance refers to the general tendency to avoid or escape from unwanted internal experiences and is described as consisting of the unwillingness to remain in contact with aversive private experiences (such as thoughts, feelings, memories and bodily sensations) and action taken to alter these experiences, which could include the use of alcohol (Hayes, Wilson, Strosahl, Gifford & Follette, 1996). 'Self-medication' could, therefore, be conceived of as a specific form of experiential avoidance.

At the time of writing, searches fail to identify any material within the literature considering the relationship between attachment experiences and experiential avoidance. Conceptually, however, there would appear to be a degree of overlap between the difficulties experienced by an individual with poor childhood attachment in tolerating difficult thoughts and feelings, and the difficulties of the experientially avoidant individual. Parker, Tupling and Brown (1979), for example, theorize that *low* levels of parental care and *high* levels of parental control are associated with poor childhood attachment. They suggest that *low* levels of care are indicative of an individual having received relatively poor emotional support in

childhood, perhaps resulting in difficult thoughts and feelings being experienced as *more* distressing, and that *high* levels of control indicate that an individual had limited opportunity for independent behaviour, possibly resulting in them being *less* able to develop appropriate skills to tolerate aversive private experiences. Within Parker, Tupling and Brown's (1979) conceptualisation, the least desirable style of parenting described above is labelled 'affectionless control'; the opposite style (characterized by *high* levels of care and *low* levels of control), which might be anticipated to be associated with a greater propensity to cope with uncomfortable emotional states, is dubbed 'optimal parenting', and the styles of 'affectionless control' (with *high* levels of care and *high* levels of control) and 'neglectful parenting' (with *low* levels of care and *low* levels of control) fall somewhere between these two extremes.

Providing further support for the conceptual overlap, it is also noted that recent literature regarding attachment theory and emotion regulation considers aspects such as thought suppression and ease of access to painful memories, which could be seen as closely mapping onto the phenomenon of experiential avoidance (Mikulincer & Shaver, 2007)

The concept of experiential avoidance has been recognised, implicitly or explicitly, within most systems of therapy (Blackledge & Hayes, 2001). Hayes and colleagues (Hayes et al., 1996, Hayes, Strosahl & Wilson, 1999), however, introduce an extensive model viewing experiential avoidance from a contextual behavioural

perspective, based on Relational Frame Theory, a theory regarding language and cognition (RFT; Hayes, Barnes-Holmes & Roche, 2001). Essentially, Hayes and his colleagues propose that, given its symbolic nature, the advent of human language has meant that internal experiences have come to represent external situations and that some are therefore appraised as aversive. This means that psychological pain cannot be avoided purely by avoiding external situations and humans thus begin to avoid negatively evaluated private events (Hayes et al., 2004). Experiential avoidance is negatively reinforced by escape from aversive internal states but is damaging in the long term as attempts to avoid thoughts and feelings are frequently unsuccessful and harmful. Consequently, therapeutic approaches recognizing experiential avoidance, for example, Acceptance and Commitment Therapy (Hayes et al., 1999), Dialectical Behaviour Therapy (Linehan, 1993), and Mindfulness-based Cognitive Therapy (Segal, Williams & Teasdale, 2001), focus on the acceptance of difficult thoughts and feelings (Roemer, Salters, Raffa & Orsillo, 2005).

Experiential avoidance has been developed as a construct relatively recently, but empirical studies provide considerable evidence for the conceptualisation of substance use as a form of experiential avoidance (e.g. Armeli et al., 2003; Cooper, Russell, Skinner, Fron & Mudar, 1992; Forsyth, Parker & Finlay, 2003; Mirin, Weiss & Michael, 1988) and while the use of Acceptance and Commitment Therapy as a treatment for substance dependence is in its infancy, there is some evidence of its efficacy (Bissett, 2001; Luciano, Gómez, Hernández & Cabello, 2001; Wilson,

Hayes & Byrd, 2000). No studies published in the literature to date appear to have addressed experiential avoidance within the homeless population.

Present study

This primary aim of this study was to investigate the relationships between childhood attachment experiences, experiential avoidance and alcohol dependence in the homeless population and to establish whether experiential avoidance mediates the relationship between childhood attachment and alcohol dependence. It was hypothesised that experiential avoidance would mediate the relationship between childhood attachment experiences and alcohol dependence, as illustrated in Figure 6, following page. It was also hypothesised, more specifically, that associations would be found between *poorer* childhood attachment, *higher* levels of experiential control and *higher* levels of alcohol dependence, where poor childhood attachment was operationalised in terms of *lower* levels of maternal and paternal care and *higher* levels of maternal and paternal control. It was hoped that this research would contribute to the, at present limited literature addressing the processes by which vulnerability factors for homelessness may be related and also contribute more generally to understanding of the relationships between each of the study variables.

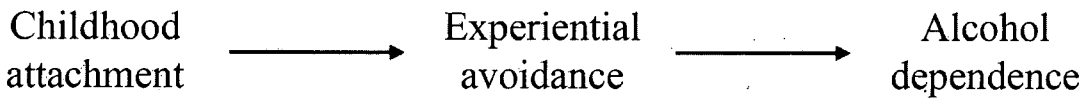

Figure 6. *Diagram representing experiential avoidance as mediating the relationship between childhood attachment and alcohol dependence.*

The study was approved by the School of Psychology Ethics Committee (see Appendix C) and was sponsored by the University of Southampton (see Appendix D).

METHOD

Design

In order to test the hypothesised mediator model, a quasi-experimental design was utilised whereby childhood attachment was the independent variable, experiential avoidance was the mediator variable and alcohol dependence was the dependent variable. Data was collected by self-report measures.

Participants

Sixty homeless adults were recruited through services for homeless people in Southampton, including three hostels and two day centres. With the support of service managers and staff members, the researcher was able to make individuals within these settings aware of the study and those who were interested elected to take part. For the purposes of the study, 'homelessness' was defined as a lack of a

permanent place to live. The sample was made up of 50 men and 10 women and was comprised of individuals who were staying in various forms of hostel accommodation and individuals who were sleeping rough[3].

Measures

Childhood attachment experiences

Childhood attachment experiences were measured using the Parental Bonding Instrument (PBI; Parker, Tupling & Brown, 1979), a retrospective measure of parental attitudes and behaviours during the first 16 years of the respondent's life. The PBI is compatible with Bowlby's conceptualisation of childhood attachment relationships (Bowlby, 1976), was developed on the basis of previous research which suggested parental bonding to have two principle dimensions relating to care and control (Raskin, Boothe, Restig, Schulerbrandt & Odle, 1971; Roe & Seligman, 1963; Schaefer, 1965), and is one of the most widely used questionnaires measuring the subjective experience of being parented (Hauck et al., 2006).

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[3] Fritz and MacKinnon (2007) provide empirical estimates of sample sizes necessary to achieve .8 statistical power, the value proposed as a minimum standard by Cohen (1988). Extremely high sample sizes are required to detect complete mediation ($\tau' = 0$) but perfect mediation is rare and sample sizes of 60 and below may be adequate if τ' is permitted to be slightly larger than 0 (i.e. $\tau' = 0.14$). Within the literature review of the same paper, eleven studies reported within two psychological journals between 2000 and 2003 are identified as having tested mediation models using sample sizes of between 20 and 50 participants, indicating that the sample of the present study exceeds some studies previously published. As it was planned that the mediator model would be assessed through a series of regression analyses, however, it was felt prudent to ascertain the number of participants required for each analysis to have adequate power. A priori power analysis using the power calculator GPower (Faul & Erdfelder, 1992) indicated that for regression analyses involving the greatest number of predictor variables potentially entailed at any stage (five), a minimum sample of 43 participants was required.

The PBI is completed for both mothers and fathers separately. Thus, the participant is asked to respond to each of the 25 items with regard to their mother and to then respond to the same 25 items with regard to their father. If either biological parent was absent in childhood the terms 'mother' and 'father' may be interpreted broadly as referring to individuals who played the role of mother or father in the respondent's early life. The measure comprises 'care' and 'control' scales, with 12 items composing the care scale for each parent and 13 items composing the control scale for each parent. Respondents are asked to indicate the degree to which each statement is true of the parent in question on a four-point scale from 'very unlike' (receiving a score of 0) to 'very like' (receiving a score of 3). Items include, for example, 'he/she was affectionate to me' (care scale), 'he/she made me feel I wasn't wanted' (care scale, reverse-scored), 'he/she tried to control everything I did' (control scale), and 'he/she let me do those things I liked doing' (control scale, reverse-scored).

Item scores are summed to produce scale scores for maternal care (ranging from 0 to 36), maternal control (ranging from 0 to 39), paternal care (ranging from 0 to 36) and paternal control (ranging from 0 to 39). High scores on the care scales indicate affection and warmth whereas low scores show rejection and indifference. High scores on the control scales indicate excessive parental control and the creation of dependence, while low scores represent the encouragement of independence and autonomy.

Scale scores may be used to provide separate measures of maternal care, maternal control, paternal care and paternal control. If desired, however, cut off scores (see Parker, 1983b) may be used to determine whether total scores for each scale are 'high' or 'low', enabling parenting received from the mother and parenting received from the father to each be assigned to one of four quadrants as illustrated below (see Figure 7, below). High levels of care and low levels of control are considered ideal and conceptualised as 'optimal parenting', while the reverse pattern of low levels of care and high levels of control, dubbed 'affectionless control', is hypothesised to be least desirable and potentially most detrimental to the child. Between these extremes are 'affectionate constraint', indicative of high levels of care and high levels of control, and 'neglectful parenting', indicating, as its name suggests, low levels of care and low levels of control.

Optimal Parenting • High care • Low control	**Affectionate Constraint** • High care • High control
Neglectful Parenting • Low care • Low control	**Affectionless Control** • Low care • High control

Figure 7. *Categories of experiences of parenting within the Parental Bonding Instrument (Parker, Tupling & Brown, 1979).*

A review of previous studies revealed that researchers have typically used the PBI categories of parenting for descriptive purposes only and have entered PBI subscale scores into their analyses (e.g. Joyce et al., 1994; Marchiori, Loschi, Marconi, Mioni & Pavan, 1999; Turner, Rose & Cooper, 2005). The decision was made to follow this precedent and to retain the richness of the data in its continuous form. It was also noted that previous studies entered maternal and paternal subscale scores into analyses separately rather than producing composite scores for parental care and parental control (e.g. Mak & Kinsella, 1996; Meyer & Gillings, 2004; Sato, Uehara, Narita, Sakado & Fujii, 2000).

In the original study the PBI was found to possess adequate split-half reliability (care scale $r = .87$, control scale $r = .73$) and test-retest reliability (care scale $r = .76$, control scale $r = .62$), and scores were not influenced by age, gender, family size or social desirability (Parker et al., 1979). Subsequent studies have shown scores on the PBI to be uncontaminated by personality traits or current state (Livianos, Rojo, Rodrigo, & Cuquerella, 1998; Mackinnon, Henderson, Scott & Duncan-Jones, 1989; Parker, 1983b) and consistently demonstrated its test-retest reliability (Gotlib, Mount, Cordy, & Whiffen, 1988; Lizardi & Klein, 2005; Richman & Flaherty, 1987). Indeed, a study by Wilhelm, Niven, Parker, and Hadzi-Pavlovic (2005) has indicated the stability of the PBI over a period of twenty years.

Experiential avoidance

Hayes et al. have developed a measure of experiential avoidance, the Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004). As this measure is relatively new and efforts to ascertain its psychometric properties are ongoing, two more established measures of specific aspects of experiential avoidance were selected to provide additional evidence of its validity: the Affective Control Scale (ACS; Williams, Chambless & Ahrens, 1997), a measure of fearful reactions to emotional responses, and the White Bear Suppression Inventory (WBSI; Wegner & Zanakos, 1994), a measure of the tendency to suppress thoughts. In previous studies, high correlations have been found between the AAQ and the ACS (Hayes et al., 2004; Roemer et al., 2005) and the AAQ and the WBSI (Tull, Gratz, Salters & Roemer, 2004; Tull & Roemer, 2003) and it was anticipated that similar associations would be found within the present study.

The AAQ was developed with the intention of providing a broad measure of experiential avoidance and assesses the tendency to avoid unwanted internal experiences (Hayes et al., 2004). Analyses have supported the internal consistency ($\alpha = .70$), and test-retest reliability ($r = .64$) of the original scale, which has been found to demonstrate adequate convergent, discriminant and concurrent validity (see Bond & Bunce, 2003; Hayes et al., 2004). Following personal correspondence with Professor Steven Hayes, however (see Appendix E), the decision was taken to select a later version of the scale for the study. This version of the measure, the AAQ-II (see Appendix F), is not yet published but is made up of easier items that may be

more suitable for less educated populations and preliminary data suggests improved internal consistency. Test-retest reliability is suggested to be good (r = .81-87) and scores fail to correlate with an established measure of social desirability (Marlowe-Crowne Social Desirability Scale; Crowne & Marlowe, 1960). The AAQ-II is made up of ten items. Respondents are asked to indicate how true each statement is for them on a 7-point scale from 'never true' (scoring 1) to 'always true' (achieving a score of 7). Scores for each of the ten items are summed to produce a total score ranging from 10 to 70. Higher scores are reflective of greater experiential avoidance, while low scores reflect greater acceptance and action. Sample items include, for example, 'I'm afraid of my feelings' and 'It's ok if I remember something unpleasant' (reverse-scored).

The ACS (Williams, Chambless & Ahrens, 1997) was designed to extend the well-established fear of fear construct (Goldstein & Chambless, 1978) and assesses fearful reactions to a range of emotional responses (fear, sadness, anger and positive emotions). Respondents are asked to provide ratings of the extent to which they agree with each of the forty-two statements on a 7-point scale ranging from 'very strongly disagree' (scoring 1) to 'very strongly agree' (scoring 7). Sample items include, for example, 'Depression is scary to me – I am afraid that I could get depressed and never recover' and 'I love feeling excited – it is a great feeling' (reverse-scored). Scores may be summed to produce four subscale scores (representing fear of fear, sadness, anger and positive emotions), but the scale also yields an overall score reflecting degree of fear of emotions ranging from 42 to 294.

Higher scores reflect higher levels of fear of emotional responding. The ACS demonstrated good internal consistency ($\alpha = .92$) and good test-retest reliability ($r = .77$) in an undergraduate sample (Williams et al., 1997) and these findings have been confirmed by replications (Berg, Shapiro, Chambless & Ahrens, 1998; Shapiro, 1995). Williams et al. demonstrated convergent validity by, for example, the ACS's strong correlation with the Emotional Control Questionnaire (Rapee, Craske, & Barlow, 1989) and divergent validity by a low, non-significant correlation with the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). The scale's validity was demonstrated by the finding that the three non-anxiety subscales of the ACS predict fear of laboratory-induced panic sensations above and beyond variance predicted by the anxiety subscale (Williams et al., 1997).

The WBSI (Wegner & Zanakos, 1994), named after Wegner, Schneider, Carter, and White's (1987) experiment in which participants were asked to suppress thoughts about white bears, was designed to assess individuals' general tendency to suppress unwanted thoughts. The WBSI is made up of 15 items, each of which contains a statement indicative of thought suppression, such as, 'There are things I prefer not to think about'. Respondents are asked to indicate the extent of their agreement with each statement on a 5-point scale ranging from 'strongly disagree' (gaining a score of 1) to 'strongly agree' (scoring 5). Scores for each of the 15 items are summed to produce a total score ranging from 15 to 75. Higher scores indicate greater tendencies to suppress thoughts. The WBSI has strong test-retest reliability ($r = .80$, Muris, Merckelbach & Horselenberg, 1996; average $r = .77$, Wegner & Zanakos,

1994), and has consistently been found to have very good internal consistency (α = .87-.91, Blumberg, 2000; Höping & de Jong-Meyer, 2003; Muris et al., 1996; Rassin, 2003; Spinhoven & van der Does, 1999; Wegner & Zanakos, 1994). The scale was shown to have good predictive and convergent validity, correlating with measures of obsessional thinking, anxiety, and depression (Wegner & Zanakos, 1994) and frequencies of intrusive thinking in thought suppression experiments (Muris et al., 1996).

Alcohol dependence

Alcohol dependence was measured using the Short Alcohol Dependence Data Questionnaire (SADD; Raistrick, Dunbar & Davidson, 1983). The SADD is based on the conceptualisation of alcohol dependency as a uni-dimensional continuum (Davidson, 1987) and was designed to provide a total score indicative of the presence and degree of severity of alcohol dependence at the time of completion. The SADD is a subset of 15 items taken from the original 39-item Alcohol Dependence Data (ADD) questionnaire (Raistrick et al., 1983) and contains items measuring cognitive, behavioural and physiological indicators of dependence (Davidson, Bunting & Raistrick, 1989). Questions include, for example, 'Do you find difficulty in getting the thought of drinking out of your mind?', 'Do you try to control your drinking by giving it up completely for days or weeks at a time?' and 'After a heavy drinking session do you wake up with a definite shakiness of your hands?' Respondents are asked to answer each question on a four-point frequency scale, selecting 'never' (scoring 0), 'sometimes' (scoring 1), 'often' (scoring 2) or

'nearly always' (scoring 3). Total scores, achieved by summing the scores achieved on each of the 15 items, range from 0 to 45. Higher scores are indicative of higher dependence upon alcohol. The authors suggest that total scores in the range 1- 9 be considered 'low dependence', 10-19 'medium dependence' and 20 or greater 'high dependence', with the term 'alcohol dependent' applying to individuals with scores in both the medium and high ranges.

The SADD has been found to demonstrate good split half reliability (r = .82, Jorge & Masur, 1985; r = .87, Raistrick et al., 1983) and test-retest reliability (r = .90, Jorge & Masur, 1985; r = .87, McMurran & Hollin, 1989). Evidence is also available of its construct and concurrent validity (Davidson & Raistrick, 1986) and its discriminant validity (Jorge & Masur, 1985). It has been used by researchers with both clinical and non-clinical groups including young male offenders (McMurran, Hollin & Bowen, 1990).

Procedure

Services for homeless people who agreed to support the research were asked to put up posters (see Appendix G) and distribute leaflets (see Appendix H) advertising the study. Individuals interested in participating were asked to give their name to staff members who were able to inform them of the dates and times of sessions during which the researcher would be on-site to provide further information. Within these sessions individuals considering taking part were able to meet the researcher, learn more about the study and to have any questions answered. Those electing to

participate were able to make arrangements to do so on a further occasion convenient to both parties. The only exclusion criterion for the study was the ability to understand basic spoken or written English as interpreters or alternative language questionnaires were not available. Prior to taking part participants were given an information sheet regarding the study (see Appendix I) and assisted to complete a screening form (see Appendix J) in order to ascertain the level of support they wished to receive for completing the questionnaires. Forty-eight participants opted to complete the questionnaires independently, five received some help in, for example, the researcher answering queries or providing word definitions, and seven completed the questionnaires by means of an interview with the researcher. Individuals participating in the format of an interview were asked to complete a consent form (see Appendix K).

Efforts were made to ensure that participants were able to complete the research pack, made up of the five questionnaires described above, without their answers being visible or audible to other participants. Participants were asked not to confer and to answer questions as honestly as possible. On average, the questionnaires took 25 minutes to complete, although this process took longer for those who required more support. Once finished, participants were asked to seal their questionnaires in the envelope provided. Following debriefing (see Appendix L), participants were provided with a handout sheet (see Appendix M). As a 'thank you' for taking part in the study, each participant was then given a £5 ASDA voucher and asked to sign the

voucher confirmation sheet (see Appendix N). Prior to scoring, questionnaires were coded to ensure the confidentiality and anonymity of each participant.

RESULTS

Descriptive statistics

Four of the sixty participants were unable to complete the PBI subscales for paternal care and paternal control as they had no father figure in childhood (n = 56) and a further two participants were unable to complete the PBI subscales for maternal care and maternal control due to the absence of a mother figure in childhood (n = 58). Fifty-four participants therefore had complete data upon all four subscales of the PBI. No data was missing for any of the other measures used (n = 60). The means, standard deviations and ranges of scores on the PBI, AAQ-II, ACS, WBSI and SADD are shown in Table 2, following page.

Table 2.

Mean scores, standard deviations, maximum and minimum scores on the PBI, AAQ-II, ACS, WBSI and SADD.

Measure	Subscale	n	*M*	*SD*	Min	Max
PBI	Maternal care scale	58	21.2	9.26	2	36
	Maternal control scale	58	14.8	7.3	0	30
	Paternal care scale	56	20.6	9.49	0	36
	Paternal control scale	56	13.3	7.74	0	27
AAQ-II		60	39.2	12.64	17	64
ACS		60	167.4	39.60	65	255
WBSI		60	51.5	16.35	15	75
SADD		60	11.9	12.33	0	45

Reliability of measures

Cronbach's alpha coefficients were calculated as a measure of the internal reliability each of the four PBI subscales within the present study and were found to be adequate (maternal care scale, $\alpha = .88$; maternal control scale, $\alpha = .71$; paternal care scale, $\alpha = .88$; paternal control scale, $\alpha = .77$).

Pearson's correlations[4] revealed significant positive correlations between scores on the AAQ-II and the ACS (r (60) = .664, p < .001, one-tailed) and the AAQ-II and the WBSI (r (60) = .67, p < .001, one-tailed), thus providing additional evidence of the construct validity of the AAQ-II[5]. Internal consistency of the scale with the present sample (α = .79) was good and the SADD was found to have excellent reliability (α = .95).

The relationships between childhood attachment, experiential avoidance and alcohol dependence

To determine whether experiential avoidance played a mediating role between childhood attachment and alcohol dependence, a series of analyses were performed in accordance with the method outlined by Baron and Kenny (1986).

According to the model proposed by Baron and Kenny, prior to establishing whether a mediating relationship is present, the following conditions must be met as illustrated within the context of the present study in Figure 8, following page: a) a significant association must be found between the independent variable and presumed mediator, b) a significant association must be found between the presumed mediator and the dependent variable, and c) a significant association must be found between the independent variable and dependent variable. If these requirements are satisfied, a mediating relationship may be established if d) the association between

[4] Kolmogorov-Smirnov tests indicated that distributions of scores on the AAQ-II (D(60)=.074, p =.2), ACS (D(60)=.049, p=.2) and WBSI (D(60)=.099, p=.2) did not differ significantly from normality.
[5] A significant positive correlation was also found between scores on the ACS and WBSI (r (60) = .584, p < .001, one-tailed).

independent variable and dependent variable is significantly reduced after statistically controlling for the presumed mediator.

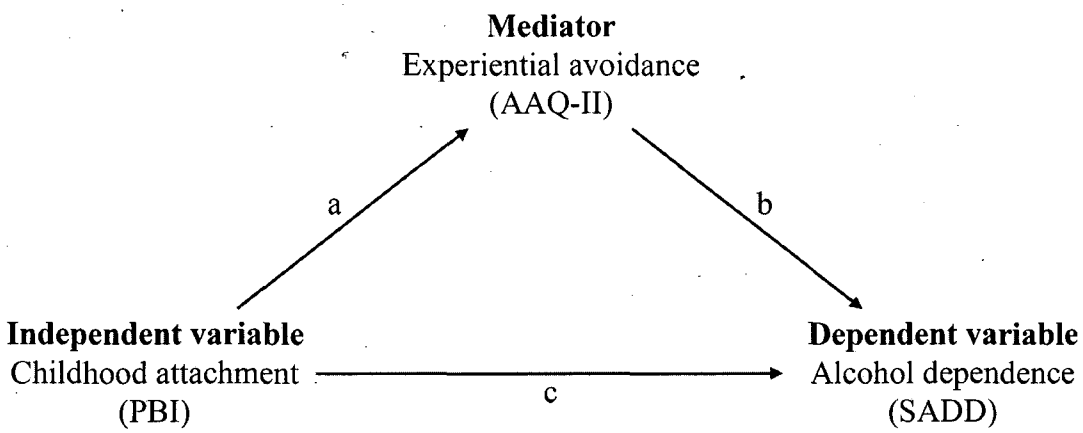

Figure 8. *Mediational model informed by Baron and Kenny (1986) where experiential avoidance (measured using the AAQ-II) mediates the relationship between childhood attachment experiences (PBI) and alcohol dependence (SADD).*

Following the recommendations of Baron and Kenny (1986) regression analyses were carried out to ascertain whether the relationships between PBI, AAQ-II and SADD scores fulfilled the necessary requirements for conditions a), b) and c) to be met. Following the guidance of Field (2005) each regression model was inspected for significant outliers and unduly influential cases, and also for homoscedasticity, linearity, independent and normally distributed residuals and multicollinearity between the predictor variables. All three models were found to fit observed data well and to violate no assumptions, suggesting that findings could be generalized beyond the present sample.

a) PBI and AAQ-II scores

To test *condition a)*, multiple regression was used to determine whether each of the PBI subscale scores predicted AAQ-II scores within the sample. Cases were excluded if subscales for either maternal care and control or paternal care and control had not been completed (n = 54).

Using the enter method, a significant model emerged ($F_{4,49} = 6.69, p < .001, R^2 = .353$). The analysis confirmed that the PBI subscales relating to maternal care and maternal control were significant predictors of AAQ-II score. Higher scores for maternal care predicted lower scores on the AAQ-II (beta = -.349, $p = .048$), while higher scores for maternal control predicted higher scores on the AAQ-II (beta = .613, $p = .012$). Paternal care and paternal control scores were not found to be significant predictors of AAQ-II scores (beta = .027, $p = .91$; beta = .406, $p = .181$). Table 3, following page, displays the unstandardized regression coefficients (beta), their standard error values and the standardized regression coefficients (β) for the regression model. Effect size was calculated ($f^2 = .546$) and noted to be large (Cohen, 1988). Post-hoc power analysis[6] indicated the power of the regression analysis to be 0.99.

[6] Using GPower (Faul & Erdfelder, 1992).

Table 3.

Unstandardized regression coefficients (B), their standard error values (SE B) and standardized regression coefficients (β) for model of PBI subscale scores' prediction of variance in AAQ-II score (n = 54).

	B	*SE B*	*β*
Constant	31.47	8.56	
PBI Maternal care	-.35	.17	-.25*
PBI Maternal control	.61	.24	.35*
PBI Paternal care	.03	.23	.02
PBI Paternal control	.41	.3	.24

Adjusted R^2 = .3

* p<.05

b) AAQ-II and SADD scores

To test *condition b)* linear regression was used to determine whether AAQ-II scores predicted SADD scores within the sample (n = 60). Higher scores on the AAQ-II scores were found to predict higher SADD scores ($F_{1,58}$ = 7.14, p = .01, beta = .323, R^2= .11). Table 4, following page, displays further data regarding this model. Effect size was calculated (f^2 = .124) and noted to be small to medium in size (Cohen, 1988). Post-hoc power analysis indicated the power of the regression analysis to be

0.77, falling slightly below the 0.80 level generally regarded to constitute adequate statistical power (Cohen, 1988).

Table 4.

Unstandardized regression coefficients (B), their standard error values (SE B) and the standardized regression coefficient (β) for model of AAQ-II scores' prediction of variance in SADD scores (n = 60).

	B	*SE B*	*β*
Constant	-.76	4.98	
AAQ-II	.32	.12	.33*

Adjusted $R^2 = .09$

* $p < .05$

c) PBI and SADD scores

To test *condition c)* a regression analysis (using the enter method) was carried out to determine whether each of the PBI subscale scores (maternal care, maternal control, paternal care, paternal control) predicted SADD scores within the sample. As previously, cases were excluded if subscales for either maternal care and control or paternal care and control had not been completed (n = 54). The overall model was found to be non-significant ($F_{4,49} = 1.92$, $p = .123$, $R^2 = .14$), indicating there to be no significant association between the independent and dependent variables.

Table 5, below, displays further data regarding this model. Scores on the PBI paternal control subscale were noted to constitute a significant predictor variable within the model (beta = -.755, p = .027), but the overall model was found to remain non-significant, despite the removal and retention of predictor variables. Effect size was calculated (f^2 = .162) and noted to be approaching medium in size (Cohen, 1988). Post-hoc power analysis indicated the power of the regression analysis to be 0.60, falling below the 0.80 level generally regarded to constitute adequate statistical power (Cohen, 1988).

Table 5

Unstandardized regression coefficients (B), their standard error values (SE B) and standardized regression coefficients (β) for model of PBI subscale scores' prediction of variance in SADD score (n = 54).

	B	*SE B*	*β*
Constant	30.05	9.49	
PBI Maternal care	-.19	.19	-.14
PBI Maternal control	.27	.26	.16
PBI Paternal care	-.36	.26	-.27
PBI Paternal control	-.76	.33	-.47*

Adjusted R^2 = .07

* p< .05

As an association between independent variable (PBI) and dependent variable (SADD) was not detected and *condition c)*, a basic requirement for a mediating relationship to be established, was not satisfied, it was not possible to carry out regression analyses to determine *d)* whether the association between independent variable (PBI) and dependent variable (SADD) was significantly reduced after statistically controlling for the presumed mediator (AAQ-II).

Further descriptive statistics

PBI

For each participant, cut off scores (see Parker, 1983b) were used to determine whether total scores upon each of the PBI subscales were 'high' or 'low', enabling the parenting received from the participant's mother and parenting received from the participant's father to both be assigned to one of the four categories illustrated within Figure 9, below.

Optimal Parenting • High care • Low control	**Affectionate Constraint** • High care • High control
Neglectful Parenting • Low care • Low control	**Affectionless Control** • Low care • High control

Figure 9. *Categories of experiences of parenting within the Parental Bonding Instrument (Parker, Tupling & Brown, 1979).*

The frequency and percentages of scores falling within each of the four PBI categories for mothers and fathers are shown in Table 6, following page. Some similarity in the frequency of each pattern for mothers and fathers may be noted. 'Affectionless control', characterised by low levels of care and high levels of control, was the most frequent category for both mothers (51.7%) and fathers (51.8%). This was followed by 'optimal parenting', with the reverse pattern of high levels of care and low levels of control (mothers, 22.4%; fathers, 30.4%), and neglectful parenting, indicative of low levels of care and low levels of control (mothers, 19%; fathers, 14.3%). The least frequent category was found to be affectionate constraint, with high levels of care and high levels of control (mothers, 6.9%; fathers, 3.6%).

Table 6.

Frequency and percentage of scores falling within categories of parenting experiences on the PBI.

Parent	Category of parenting experiences	Frequency	Percentage
Mother	Affectionless control	30	51.5
	Optimal parenting	13	22.4
	Neglectful parenting	11	19.0
	Affectionate constraint	4	6.9
Total		58	
Father	Affectionless control	29	51.8
	Optimal parenting	17	30.4
	Neglectful parenting	8	14.3
	Affectionate constraint	2	3.6
Total		56	

SADD

The frequencies of scores on the SADD falling into the ranges of 'low', 'medium' and 'high' dependence, as defined by the scale's authors (Raistrick, Dunbar & Davidson, 1983), were calculated and are shown in Table 7, following page. Twenty-five percent of the sample showed no signs of alcohol dependency and 28% fell within the category of low dependence. The self-report of 47% of the sample,

however, was classified as indicating significant alcohol dependence, with 22% falling within the medium range and 25% falling within the high range of dependence.

Table 7.

Frequency and percentage of scores within categories of alcohol dependence on the SADD.

Category of alcohol dependence	Frequency (n = 60)	Percentage
Not dependent	15	25.0
Low dependence	17	28.3
Medium dependence	13	21.7
High dependence	15	25.0

DISCUSSION

The main hypothesis, that experiential avoidance mediates the relationship between childhood attachment and alcohol dependence in the homeless population was not supported by the findings of the study. No significant association between childhood attachment and alcohol dependence was detected and consequently there was no relationship between childhood attachment and alcohol dependence that could be

mediated by a third variable. Interestingly however, significant relationships were found to exist between both childhood attachment and experiential avoidance, and experiential avoidance and alcohol dependence and the directions of these relationships were as hypothesised. Results indicated that *poorer* childhood attachment, evident in *lower* levels of maternal care and *higher* levels of maternal control, was associated with *higher* levels of experiential avoidance, and that *higher* levels of experiential avoidance were associated with *higher* levels of alcohol dependence.

Childhood attachment and alcohol dependence

Assuming that the non-significant relationship between childhood attachment and alcohol dependence within the present sample is indicative of a non-significant relationship between these variables within the homeless population as a whole, the findings of the study suggest that poor childhood attachment experiences do *not* increase risk for homelessness in adulthood through increasing risk for alcohol dependence. If childhood attachment and alcohol dependence are micro-level vulnerability factors for homelessness, as suggested by the literature (Fichter & Quadflieg, 2003; Odell & Commander, 2000; Schweitzer et al., 1994; Tavecchio et al., 1999), then the findings of this study would suggest that each independently increases risk for homelessness. It might also be suggested that if researchers are to investigate how childhood attachment, a 'distal' factor, increases risk for homelessness in adulthood through a relationship with one or more 'proximal' factors (Buckner, 1991) attention should focus on proximal risk factors other than

alcohol dependence. It has been suggested that individuals with poor attachment experiences may have greater difficulties in developing and maintaining adult relationships and consequently have poor social support networks to turn to in times of difficulty (Anderson & Rayens, 2004) and it may be, for example, that investigations into a possible association between childhood attachment and lack of social support within homeless samples would be valuable.

In terms of the wider literature it is noted that the apparent absence of a relationship between childhood attachment and alcohol dependence runs contrary to the majority of findings of studies relating to the general population (Bernardi et al., 1989; Gerra et al., 2004; Gomez, 1984; Joyce et al., 1994; Mak & Kinsella, 1996) and could be seen to provide evidence to suggest that alcohol dependence is not among the range of disorders found to be associated with poor childhood attachment experiences (Hafner, 1988; Parker, 1979, 1981, 1983a; Zweig-Frank, 1991). In contrast to the findings of previous research the *most* significant predictor, paternal control, was found to have an inverse relationship with alcohol dependence. This relationship was not found to be *statistically* significant but is *clinically* interesting in inviting speculation as to whether *low* paternal control may actually be a predisposing factor in the future development of alcohol dependence. Further research to explore this relationship more fully may be valuable.

Childhood attachment and experiential avoidance

The significant relationship found to exist between childhood attachment and experiential avoidance supports the observation that there would appear to be a conceptual overlap between some of the difficulties experienced by individuals with poor childhood attachment and the characteristic difficulties of the experientially avoidant individual (Hayes et al., 2004; Mikulincer & Shaver, 2007). As noted within the introduction, literature searches at the present time fail to identify any material explicitly considering the relationship between attachment experiences and experiential avoidance. The findings of this study however, suggest that more in-depth research into attachment experiences, experiential avoidance and variables such as emotion regulation, toleration of difficult thoughts and feelings, thought suppression and affective control may be warranted. If further empirical studies support a relationship between childhood attachment and experiential avoidance this may enable therapies utilising the construct of experiential avoidance to develop longitudinal formulation of individuals' tendencies to avoid unwanted experience.

Interestingly, only maternal care and maternal control were found to be significant predictors of experiential avoidance. This finding might be interpreted as suggesting that the quality of mother-child attachment relationships is of greater consequence than the quality of father-child relationships in determining the degree to which the individual is experientially avoidant in adulthood. It may simply be, however, that the primary childhood attachment figures for participants within the study were more commonly their mothers, as might be anticipated within our culture.

Participants within the present study were not asked to indicate which parent acted as their primary carer within childhood, making it difficult to conclude how this finding ought to be interpreted, but further research may enable firmer conclusions to be drawn.

Experiential avoidance and alcohol dependence

The relationship found between experiential avoidance and alcohol dependence was not as strong as the relationship between childhood attachment and experiential avoidance but was nevertheless significant. AAQ-II scores were found to significantly predict SADD scores and results indicated that AAQ-II scores accounted for 11% of variance in SADD scores within the present sample. Given that the literature on experiential avoidance suggests that alcohol use is merely *one* problematic strategy for the avoidance of unwanted experience (Hayes et al., 1996) and therefore only one manifestation of experiential avoidance, this would appear to be a finding that is of considerable clinical importance. This result adds to evidence for the conceptualisation of substance dependence generally as a form of experiential avoidance (e.g. Armeli et al., 2003; Cooper et al., 1992; Forsyth et al., 2003; Mirin et al., 1988) and therefore to the foundations for the use of therapies such as Acceptance and Commitment Therapy as a treatment for substance dependence.

Childhood attachment, experiential avoidance and alcohol dependence, and their relation to homelessness

The present study did not employ a control group but some tentative observations may be made regarding the relationships between childhood attachment, alcohol dependence and homelessness through the comparison of data collected with data from non-homeless samples published within the literature. Unfortunately, as the AAQ-II is a newer measure and studies using it were not available within the literature at the time of writing, similar comparisons could not be made.

Childhood attachment and homelessness

In comparison with scores reported in the literature for non-homeless samples (Parker et al., 1979; Wilhelm et al., 2005; Wilhelm & Parker, 1990) overall mean PBI subscale scores were found to generally be several points lower with respect to maternal and paternal care subscales and several points higher for maternal and paternal control subscales, congruent with the large proportion of scores falling within the category of 'affectionless control'. In the absence of more detailed data from these studies, the magnitude of these differences may not be properly assessed, but the findings of this study would appear to echo the trend found within previous studies for homeless samples to report lower levels of parental care (Tavecchio et al., 1999) and higher levels of parental control (Schweitzer et al., 1994).

Alcohol dependence and homelessness

Almost half of the sample was classified, on the basis of responses on the SADD, as having a significant degree of alcohol dependence. The overall mean score also exceeded those found within two samples of young male offenders reporting for the period prior to their arrest (McMurran & Hollin, 1989; McMurran et al., 1990), suggesting that the findings of the present study are compatible with previous studies finding high levels of alcohol dependence within homeless samples (Caton et al., 1993; Fichter & Quadflieg, 2003; Odell & Commander, 2000).

Strengths and limitations

A major strength of the study was the diversity of the sample recruited, which was made up of homeless individuals using a variety of services available for homeless people within Southampton city centre including two major day service provisions and three different types of hostel accommodation. Individuals who were sleeping rough, staying in short-term hostel accommodation and staying in longer-term hostel accommodation were thus represented. Sampling strategies were not as sophisticated as techniques employed by some large-scale studies to gain representative samples (Fichter & Quadflieg, 2003; Koegel, Melamid & Burnam, 1995; Robertson, Zlotnick & Westerfelt, 1997); the sample did not include homeless individuals who did not use services, and the sample was made up of individuals who had volunteered to take part in the study, thus introducing elements of systematic bias. Overall, however, the sample was felt to be a strength.

A further strength was the degree of support made available to participants to complete the questionnaires. The researcher assisted each participant to complete a screening form in order to ascertain the level of support they wished to receive. The researcher then personally conducted interviews with the seven participants who wished to take part in this format, provided individual help to the five participants wishing to receive some assistance, and remained physically present while the other participants completed the questionnaires in order to answer any queries that they had. It is possible that some participants who declined support would have benefited from more help and that the different conditions in which the questionnaires were completed may have influenced the results given. The use of an interview format with all participants may have been ideal. Participants were generally noted, however, to work through the questionnaires conscientiously, asking appropriate questions to clarify what was being asked of them and in general, it is felt that the procedure adopted enabled responses to be interpreted, with a reasonable degree of confidence, as an accurate reflection of participants' experience.

The study indicates that there was no significant relationship between childhood attachment and alcohol dependence within the sample and the implications of this finding, if true of the homeless population as a whole, are discussed above. Having considered this finding in relation to the existing literature and methodological limitations, however, it is felt that some caution should be exercised with regard to its interpretation. Firstly, it is noted to be possible that homelessness itself acted as a confounding variable within this analysis. There is some evidence to suggest that

binge drinking (Sosin, Piliavin & Westerfelt, 1990), substance use (Fountain, Howes, Marsden, Taylor & Strang, 2003) and substance dependency (Winkleby & White, 1992) increase with length of homelessness, perhaps due to the experience of living within a subculture in which alcohol use is common (Johnson, Freels, Parsons & Vangeest, 1997) and it may therefore be the case that a relationship between duration of homelessness and alcohol dependence obscured a relationship between childhood attachment and alcohol dependence. Data on the duration of homelessness was not sought from participants within the present study but this may be a variable that warrants measurement in future studies.

Secondly, it is possible that the ability of the PBI to provide a valid measure of homeless adults' childhood attachment experiences is limited by the elevated number of individuals in the homeless population with histories of major family disruptions during childhood (Bassuk, Rubin & Lauriat, 1986), or having previously been 'looked after children' (Susser, Struening & Conover, 1987). The PBI asks the participant to provide ratings with respect to one mother figure and one father figure only and may therefore fail to adequately reflect the experiences of an individual who was cared for by more than one female or one male during the course of their childhood. It is also important to note that 45% of the participants who rated both a mother and father figure (n = 54) provided responses that placed their parents into different categories of parenting style, suggesting that their general experience of parenting might not be appropriately represented by their scores for either parent.

Thirdly, it was felt important to acknowledge that the failure to detect a significant relationship could potentially also be due in part to inadequate statistical power. A sample size of 60 was selected on the basis of a prior power calculation and in line with the budget available for the study. Post-hoc power analyses suggested that the power of the regression model used to test the extent to which PBI scores predicted AAQ-II scores was excellent and that the power of the regression equation used to test the extent to which AAQ-II scores predicted SADD scores was only slightly below the 0.80 level generally regarded to constitute adequate statistical power (Cohen, 1988). The power of the regression model used to test the predictive value of PBI scores with respect to SADD scores, however, was 0.60, which means that it is possible that a significant relationship *could* be found if data from a larger number of homeless individuals were used. It is suggested that a replication of the current study using a larger sample size and collecting data on participants' duration of homelessness would enable findings regarding childhood attachment and alcohol dependence to be interpreted with greater confidence.

Finally, it is noted that the study focused on alcohol dependence and therefore examined only one kind of substance dependence. Substance use generally may be an indicator of experiential avoidance, with different substances being used to avoid different internal states that are evaluated as aversive (Hayes et al., 1996) and it is possible that even within this sample, where a relationship between childhood attachment and alcohol dependence was not evident, a relationship between childhood attachment and substance dependence generally may have been found.

During the completion of the questionnaires, a number of participants remarked that they tended to use drugs rather than alcohol and research has suggested that rates of drug use disorder amongst the homeless have increased in recent years, particularly amongst younger people (Johnson, Freels, Parsons & Vangeest, 1997). Regrettably, data on the age of participants within the study was not collected and it is not therefore possible to ascertain what proportion of participants fell within the younger age range. In future studies it would be interesting to additionally investigate drug dependence.

CONCLUSIONS

The limitations of the research notwithstanding, this study makes a new and important contribution to the literature with regard to the relationships between childhood attachment, experiential avoidance and alcohol dependence within the homeless population, relationships that do not appear to have been previously explored using a homeless sample.

Further research into micro-level vulnerability factors for homelessness and the relationships between them is much needed. In particular, further investigation into childhood attachment and alcohol dependence in a homeless sample would enable firmer conclusions about the presence or absence of a relationship between these risk factors to be reached. Significant relationships found between childhood attachment and experiential avoidance, and experiential avoidance and alcohol dependence,

however, add to the burgeoning literature around experiential avoidance and will hopefully therefore contribute to the ongoing development and practice of therapies working with the construct of experiential avoidance.

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LIST OF APPENDICES

Appendix A Clinical Psychology Review – Notes for authors

Guide for Authors

SUBMISSION REQUIREMENTS: Authors should submit their articles electronically via the Elsevier Editorial System (EES) page of this journal (http://ees.elsevier.com/cpr). The system automatically converts source files to a single Adobe Acrobat PDF version of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail and via the Author's homepage, removing the need for a hard-copy paper trail. Questions about the appropriateness of a manuscript should be directed (prior to submission) to the Editorial Office, details at URL above. Papers should not exceed 50 pages (including references).

Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, without the written consent of the Publisher.

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Please provide the following data on the title page (in the order given).

Title. Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.

Author names and affiliations. Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author.

Corresponding author. Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.**

Present/permanent address. If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Abstract. A concise and factual abstract is required (not exceeding 200 words). This should be typed on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separate from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list.

STYLE AND REFERENCES: Manuscripts should be carefully prepared using the Publication Manual of the American Psychological Association, 5th ed., 1994, for style. The reference section must be double spaced, and all works cited must be listed. Please note that journal names are not to be abbreviated.

Reference Style for Journals: Cook, J. M., Orvaschel, H., Simco, E., Hersen, M., and Joiner, Jr., T. E. (2004). A test of the tripartite model of depression and anxiety in older adult psychiatric outpatients, *Psychology and Aging*, 19, 444-45.

For Books: Hersen, M. (Ed.). (2005). Comprehensive handbook of behavioral assessment (2 Volumes). New York: Academic Press (Elsevier Scientific).

TABLES AND FIGURES: Present these, in order, at the end of the article. High-resolution graphics files must always be provided separate from the main text file (see http://ees.elsevier.com/cpr for full instructions, including other supplementary files such as high-resolution images, movies, animation sequences, background datasets, sound clips and more).

PAGE PROOFS AND OFFPRINTS: When your manuscript is received by the Publisher it is considered to be in its final form. Proofs are not to be regarded as 'drafts'. One set of page proofs will be sent to the corresponding author, to be checked for typesetting/editing. No changes in, or additions to,

the accepted (and subsequently edited) manuscript will be allowed at this stage. Proofreading is solely the authors' responsibility.
The Publisher reserves the right to proceed with publication if corrections are not communicated. Please return corrections within 3 days of receipt of the proofs. Should there be no corrections, please confirm this.

COPYRIGHT: Upon acceptance of an article, authors will be asked to transfer copyright (for more information on copyright, see http://www.elsevier.com). This transfer will ensure the widest possible dissemination of information. A letter will be sent to the corresponding author confirming receipt of the manuscript. A form facilitating transfer of copyright will be provided.
If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has forms for use by authors in these cases available at www.elsevier.com/locate/permissions phone: (+44) 1865 843830, fax: (+44) 1865 853333, e-mail: permissions@elsevier.com

NIH voluntary posting policy US National Institutes of Health (NIH) voluntary posting (" Public Access") policy Elsevier facilitates author response to the NIH voluntary posting request (referred to as the NIH "Public Access Policy", see http://www.nih.gov/about/publicaccess/index.htm) by posting the peer-reviewed author's manuscript directly to PubMed Central on request from the author, 12 months after formal publication. Upon notification from Elsevier of acceptance, we will ask you to confirm via e-mail (by e-mailing us at NIHauthorrequest@elsevier.com) that your work has received NIH funding and that you intend to respond to the NIH policy request, along with your NIH award number to facilitate processing. Upon such confirmation, Elsevier will submit to PubMed Central on your behalf a version of your manuscript that will include peer-review comments, for posting 12 months after formal publication. This will ensure that you will have responded fully to the NIH request policy. There will be no need for you to post your manuscript directly with PubMed Central, and any such posting is prohibited.

Appendix B The British Journal of Clinical Psychology – Notes for authors

Notes for Contributors

The *British Journal of Clinical Psychology* publishes original contributions to scientific knowledge in clinical psychology. This includes descriptive comparisons, as well as studies of the assessment, aetiology and treatment of people with a wide range of psychological problems in all age groups and settings. The level of analysis of studies ranges from biological influences on individual behaviour through to studies of psychological interventions and treatments on individuals, dyads, families and groups, to investigations of the relationships between explicitly social and psychological levels of analysis.

The following types of paper are invited:

- Papers reporting original empirical investigations
- Theoretical papers, provided that these are sufficiently related to the empirical data
- Review articles which need not be exhaustive but which should give an interpretation of the state of the research in a given field and, where appropriate, identify its clinical implications
- Brief reports and comments

1. Circulation

The circulation of the Journal is worldwide. Papers are invited and encouraged from authors throughout the world.

2. Length

Papers should normally be no more than 5000 words, although the Editor retains discretion to publish papers beyond this length in cases where the clear and concise expression of the scientific content requires greater length.

3. Reviewing

The journal operates a policy of anonymous peer review. Papers will normally be scrutinised and commented on by at least two independent expert referees (in addition to the Editor) although the Editor may process a paper at his or her discretion. The referees will not be aware of the identity of the author. All information about authorship (including

personal acknowledgements and institutional affiliations) should be confined to the title page (and the text should be free of such clues as identifiable self-citations, e.g. 'In our earlier work...').

4. Online submission process

1) All manuscripts must be submitted online at http://bjcp.edmgr.com.

First-time users: Click the REGISTER button from the menu and enter in your details as instructed. On successful registration, an email will be sent informing you of your user name and password. Please keep this email for future reference and proceed to LOGIN. (You do not need to re-register if your status changes e.g. author, reviewer or editor).
Registered users: Click the LOGIN button from the menu and enter your user name and password for immediate access. Click 'Author Login'.

2) Follow the step-by-step instructions to submit your manuscript.

3) The submission must include the following as separate files:

- Title page consisting of manuscript title, authors' full names and affiliations, name and address for corresponding author - Manuscript title page template
- Abstract
- Full manuscript omitting authors' names and affiliations. Figures and tables can be attached separately if necessary.

4) If you require further help in submitting your manuscript, please consult the Tutorial for Authors - Editorial Manager - Tutorial for Authors
Authors can log on at any time to check the status of the manuscript.

5. Manuscript requirements

- Contributions must be typed in double spacing with wide margins. All sheets must be numbered.
- Tables should be typed in double spacing, each on a separate page with a self-explanatory title. Tables should be comprehensible without reference to the text. They should be placed at the end of the manuscript with their approximate locations indicated in the text.
- Figures can be included at the end of the document or attached as separate files, carefully labelled in initial capital/lower case lettering with symbols in a form consistent with text use. Unnecessary background patterns, lines and shading should be avoided. Captions should be listed on a separate page. The resolution of digital images must be at least 300 dpi.
- For articles containing original scientific research, a structured abstract of up to 250 words should be included with the headings: Objectives, Design, Methods, Results, Conclusions. Review articles should use these headings: Purpose, Methods, Results, Conclusions:
  British Journal of Clinical Psychology - Structured Abstracts Information
- For reference citations, please use APA style. Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full.
- SI units must be used for all measurements, rounded off to practical values if appropriate, with the imperial equivalent in parentheses.
- In normal circumstances, effect size should be incorporated.
- Authors are requested to avoid the use of sexist language.
- Authors are responsible for acquiring written permission to publish lengthy quotations, illustrations, etc. for which they do not own copyright.

For Guidelines on editorial style, please consult the *APA Publication Manual* published by the American Psychological Association, Washington DC, USA (http://www.apastyle.org).

6. Brief reports and comments

These allow publication of research studies and theoretical, critical or review comments with an essential contribution to make. They should be limited to 2000 words, including

references. The abstract should not exceed 120 words and should be structured under these headings: Objective, Method, Results, Conclusions. There should be no more than one table or figure, which should only be included if it conveys information more efficiently than the text. Title, author and name and address are not included in the word limit.

7. Publication ethics

Code of Conduct - Code of Conduct, Ethical Principles and Guidelines
Principles of Publishing - Principles of Publishing

8. Supplementary data

Supplementary data too extensive for publication may be deposited with the British Library Document Supply Centre. Such material includes numerical data, computer programs, fuller details of case studies and experimental techniques. The material should be submitted to the Editor together with the article, for simultaneous refereeing.

9. Post acceptance

PDF page proofs are sent to authors via email for correction of print but not for rewriting or the introduction of new material. Authors will be provided with a PDF file of their article prior to publication.

10. Copyright

To protect authors and journals against unauthorised reproduction of articles, The British Psychological Society requires copyright to be assigned to itself as publisher, on the express condition that authors may use their own material at any time without permission. On acceptance of a paper submitted to a journal, authors will be requested to sign an appropriate assignment of copyright form.

11. Checklist of requirements

- Abstract (100-200 words)
- Title page (include title, authors' names, affiliations, full contact details)

- Full article text (double-spaced with numbered pages and anonymised)
- References (APA style). Authors are responsible for bibliographic accuracy and must check every reference in the manuscript and proofread again in the page proofs
- Tables, figures, captions placed at the end of the article or attached as separate files

Appendix C Email confirming School of Psychology Ethics Approval

Your Ethics Form approval

Psychology.Ethics.Forms@ps1.psy.soton.ac.uk[Psychology.Ethics.Forms@ps1.psy.soton.ac.uk]

Sent: Friday, October 05, 2007 2:38 PM
To: levell v.l. (vll105)

This email is to confirm that your ethics form submission for "A study investigating the relationships between childhood attachment, experiential avoidance and alcohol abuse in the homeless population" has been approved by the ethics committee

Project Title: A study investigating the relationships between childhood attachment, experiential avoidance and alcohol abuse in the homeless population
Study ID : 234
Approved Date : 2007-10-05 14:38:45

Click here to view Psychobook

You will now need to complete a form for indemnity insurance which can be found online at the link below:
Research Governance Form

http://www.psychology.soton.ac.uk/psyweb/psychobook/admin/ethics/research_governance.doc

This will need to be returned to the address provided on the form

Your Ethics Form approval

This email is to confirm that your ethics form submission for "A study investigating the relationships between childhood attachment, experiential avoidance and alcohol abuse in the homeless population" has been approved by the ethics committee

Project Title: A study investigating the relationships between childhood attachment, experiential avoidance and alcohol abuse in the homeless population
Study ID : 234
Approved Date : 2007-10-05 14:38:45

Click here to view Psychobook

You will now need to complete a form for indemnity insurance which can be found online at the link below:
Research Governance Form

http://www.psychology.soton.ac.uk/psyweb/psychobook/admin/ethics/research_governance.doc

This will need to be returned to the address provided on the form

Appendix D Letter of sponsorship from Southampton University

University of Southampton

Legal Services - Research Governance Office

University of Southampton
Highfield
Southampton
SO17 1BJ United Kingdom

Tel +44 (0)23 8059 8848/9
Fax +44 (0)23 8059 5781
Email mad4@soton.ac.uk
ld7@soton.ac.uk

RGO REF: 5428

Ms Vicky Levell
3 Hillside Gardens
Spinney Hill
Addlestone
KT15 1AX

07 November 2007

Dear Ms Levell

Project Title: A Study Investigating the Relationships Between Childhood Attachment, Experiential Avoidance and Alcohol Abuse in the Homeless Population

I am writing to confirm that the University of Southampton is prepared to act as sponsor for this study under the terms of the Department of Health Research Governance Framework for Health and Social Care (2nd edition 2005).

The University of Southampton fulfils the role of Research Sponsor in ensuring management, monitoring and reporting arrangements for research. I understand that you will be acting as the Principal Investigator responsible for the daily management for this study, and that you will be providing regular reports on the progress of the study to the Research Governance Office on this basis.

I would like to take this opportunity to remind you of your responsibilities under the terms of the Research Governance Framework, and the EU Clinical Trials Directive (Medicines for Human Use Act) if conducting a clinical trial. We encourage you to become fully conversant with the terms of the Research Governance Framework by referring to the Department of Health document which can be accessed at:

http://www.dh.gov.uk/assetRoot/04/12/24/27/04122427.pdf

In this regard if your project involves NHS patients or resources please send us a copy of your NHS REC and Trust approval letters when available.

Please do not hesitate to contact me should you require any additional information or support. May I also take this opportunity to wish you every success with your research.

Yours sincerely

Dr Martina Prude
Research Governance Manager
cc: File

Appendix E Personal email correspondence with Professor Steven Hayes

RE: Query regarding the AAQ

Steven C. Hayes [hayes@unr.edu]

Sent: Thursday, August 09, 2007 5:42 AM
To: levell v.l. (vll105)
Attachments: AAQ 1 and II.doc (112KB)

See attached

I'd recommend the AAQ II

A bit of a risk but not much ... it will published
and it is close

Works better with less educated populations too .... easier
items

- S

Steven C. Hayes

Foundation Professor

Department of Psychology /298

University of Nevada

Reno, NV 89557-0062

Office: (775) 784-6828 x2005 (don't leave messages there . I mostly work
from home,

esp. now that I have a new baby. Email me instead.)

Email: hayes@unr.edu

Context Press (you can use this for messages): (775) 746-2013 (for CP books
go to www.contextpress.com)

Fax: (775) 784-1126 (Dept) or use the Context Press number

Home: (775) 746-3121

Relevant websites:

www.contextualpsychology.org (Contains the ACT and RFT websites. If you want my vita, or publications from me, or PowerPoint slides, etc etc please carefully check out this site first. Go to my blog and to the publications list etc. Given the flow of emails, I need all the help I can get. Thanks in advance.)

If you are a professional and want to be part of the world wide ACT discussion or RFT discussions go to either or both of these links:

http://health.groups.yahoo.com/group/acceptanceandcommitmenttherapy/join

http://health.groups.yahoo.com/group/relationalframetheory/join

If you are a member of the public reading "Get Out of Your Mind" or similar books consider joining the ACT for the Public list serve:
http://health.groups.yahoo.com/group/ACT_for_the_Public/join

-----Original Message-----
From: vll105@soton.ac.uk [mailto:vll105@soton.ac.uk]
Sent: Wednesday, August 08, 2007 12:29 PM
To: hayes@unr.edu
Subject: Query regarding the AAQ

Dear Dr Hayes,

I am planning some research investigating whether experiential avoidance mediates the relationship between childhood attachment difficulties and alcohol use in the homeless population.

I hope to use the AAQ as a measure of experiential avoidance (together with the Affective Control Scale and White Bear Suppression Inventory). I am confused, however, by the different versions of the AAQ that are available.

I wondered whether you might be able to recommend the version that is most widely used at present, most suitable for my purposes, or if you could direct me to any literature/information that might help me to make a choice.

With many thanks,

Vicky Levell
(Undertaking a Doctorate in Clinical Psychology at the University of Southampton, Great Britain)

Appendix F AAQ-II

Re: Permission to reproduce AAQ-II in doctoral dissertation appendices

Steven Hayes [stevenchayes@gmail.com]

Sent: Wednesday, April 09, 2008 5:01 PM
To: levell v.l. (vll105)

---

ok

On Wed, Apr 9, 2008 at 8:38 AM, levell v.l. (vll105) <vll105@soton.ac.uk> wrote:
Dear Professor Hayes,

I have used the AAQ-II within my doctoral dissertation and wanted to ask your permission to put a copy of it in the appendices.

I look forward to hearing from you.

Best wishes,

Vicky Levell
(Undertaking a Doctorate in Clinical Psychology at the University of Southampton, Great Britain)

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

1	2	3	4	5	6	7
never true	very seldom true	seldom true	sometimes true	frequently true	almost always true	always true

1.	It's OK if I remember something unpleasant.	1	2	3	4	5	6	7
2.	My painful experiences and memories make it difficult for me to live a life that I would value.	1	2	3	4	5	6	7
3.	I'm afraid of my feelings.	1	2	3	4	5	6	7
4.	I worry about not being able to control my worries and feelings.	1	2	3	4	5	6	7
5.	My painful memories prevent me from having a fulfilling life.	1	2	3	4	5	6	7
6.	I am in control of my life.	1	2	3	4	5	6	7
7.	Emotions cause problems in my life.	1	2	3	4	5	6	7
8.	It seems like most people are handling their lives better than I am.	1	2	3	4	5	6	7
9.	Worries get in the way of my success.	1	2	3	4	5	6	7
10.	My thoughts and feelings do not get in the way of how I want to live my life.	1	2	3	4	5	6	7

Appendix G Study Poster

University of Southampton

A STUDY OF THE PERSONAL CHARACTERISTICS OF THE HOMELESS POPULATION

WHAT IS THE PURPOSE OF THIS STUDY?

- TO LOOK AT THE PERSONAL CHARACTERISTICS & DIFFICULTIES THAT HOMELESS PEOPLE FACE.
- THIS STUDY MAY HELP IN CREATING MORE SUITABLE & BETTER SERVICES FOR HOMELESS PEOPLE.

HOW DO I TAKE PART?

- FILL IN SOME QUESTIONNAIRES WHICH WILL TAKE ABOUT 30 – 40 MINUTES.
- TO THANK YOU FOR TAKING PART, YOU WILL BE GIVEN A £5 ASDA VOUCHER

IF YOU ARE INTERESTED:

- PLEASE ASK A STAFF MEMBER FOR A LEAFLET GIVING FURTHER DETAILS.
- YOU CAN THEN PUT YOUR NAME DOWN TO TAKE PART IN THE STUDY DURING NOVEMBER & DECEMBER 2007.

Appendix H Study Leaflet

University of Southampton

School of Psychology

Doctoral Programme in Clinical Psychology

University of Southampton
Highfield
Southampton
SO17 1BJ

Tel +44 (0)23 8059 5321
Fax +44 (0)23 8059 2588

A STUDY OF THE PERSONAL CHARACTERISTICS OF THE HOMELESS POPULATION

WHAT IS THE PURPOSE OF THIS STUDY?
To look at the personal characteristics and difficulties that homeless people face. This study may help in creating more suitable and better services for homeless people.

DO I HAVE TO TAKE PART?
It is up to you to choose whether or not you want to take part. But even if you have chosen to take part, you will be able to stop at any time and without giving a reason, and this will not affect the care you receive.

WHAT WILL I HAVE TO DO IF I TAKE PART?
You will be asked to fill in some questionnaires. Altogether, they should take around 30-40 minutes to fill in. If you would rather fill in these questionnaires with help from somebody, this can be arranged.

IF I TAKE PART IN THE STUDY, WILL MY INFORMATION BE KEPT CONFIDENTIAL?
All the information collected from the questionnaires will be made anonymous (so no names or personal information will be used). The information will be kept strictly confidential and in a safe place. The results of this study will be written up in a report and you can get a summary of these results if you want.

WHO WILL BE DOING THE RESEARCH?
Our names are , & Vicky Levell. We are trainees on the Doctoral Programme in Clinical Psychology at the University of Southampton. This study has been reviewed by the School of Psychology Research Ethics Committee, University of Southampton.

WHAT DO I NEED TO DO IF I AM INTERESTED IN TAKING PART?
If you would like to take part, please give your name to a staff member. We will be visiting during November & December 2007 and we will arrange a convenient time for you to take part in the study.

TO THANK YOU FOR FILLING IN THE QUESTIONNAIRES, YOU WILL BE

OFFERED A £5 ASDA VOUCHER.

Appendix I Information Sheet

University of Southampton

School of Psychology

Doctoral Programme in Clinical Psychology

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SO17 1BJ United Kingdom

Tel +44 (0)23 8059 5321
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A STUDY OF THE PERSONAL CHARACTERISTICS OF THE HOMELESS POPULATION

You are being asked to take part in a research study. Before you decide, it is important for you to understand why this study is being done and what it will involve. Please take some time to read this information carefully and talk to me or a staff member if you want to. Please ask if there is something that is not clear or if you would like more information. Thank you for reading this.

WHAT IS THE PURPOSE OF THIS STUDY?

This study will look into some of the personal characteristics of people who are homeless and the difficulties they face. It is hoped that the study may help in creating more suitable and better services for homeless people.

DO I HAVE TO TAKE PART?

It is up to you to choose whether or not you want to take part. If you do decide to take part, you will be given this Information Sheet to keep. If you fill out the questionnaires, this will be taken as you giving informed consent to be included as a participant in this study. Even if you choose to take part, you will still be able to stop and withdraw at any time without giving a reason and this will not affect the services you receive.

WHAT WILL I HAVE TO DO IF I TAKE PART?

You will be asked to fill in 5 questionnaires. They should take a total of 20 to 30 minutes to fill out. Once you have completed the questionnaires, you will be asked to put them in the envelope given to you so I can collect them. If you would rather fill out the questionnaires with help from somebody or during an interview, please tell me or a member of staff and this can be arranged.

WILL MY TAKING PART IN THIS STUDY BE KEPT CONFIDENTIAL?

All the information collected from the questionnaires will be made anonymous (so no names or confidential information will be used) and the information will be kept strictly confidential and in a safe place. The overall results of this study will be written up in a report and you can also get a summary of these results if you want.

WHAT ARE THE POSSIBLE DISADVANTAGES OF TAKING PART?

If you become upset or distressed while filling out the questionnaires, you will be free to stop participating and support will be available from staff members and myself if you want.

WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?

The information from this study will help us understand some of the difficulties homeless people face and so hopefully let us know what further services might be needed to help people in similar situations to yourself. Also, as a way of saying 'Thank You' for filling out the 5 questionnaires, you will be offered a £5 food voucher.

WHO AM I AND HOW DO YOU CONTACT ME?

My name is Vicky Levell and I am a trainee on the Doctoral Programme in Clinical Psychology at the University of Southampton. This study is being done as part of my training and has been reviewed by the School of Psychology Research Ethics Committee, University of Southampton.

If you have any questions or would like further information, please contact me at:

School of Psychology
Doctoral Programme in Clinical Psychology
University of Southampton
34 Bassett Crescent East
Southampton
SO16 7PB
Tel: 02380 595320

Thank you

Appendix J Screening Form

University of Southampton

School of Psychology
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University of Southampton
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SO17 1BJ United Kingdom

Tel +44 (0)23 8059 5321
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A STUDY OF THE PERSONAL CHARACTERISTICS OF THE HOMELESS POPULATION

DO / CAN YOU READ ONE OF THE DAILY NEWSPAPERS (E.G. THE MIRROR, THE INDEPENDENT)?

☐ **YES** ☐ **NO**

DO / CAN YOU FILL IN YOUR OWN BENEFIT FORMS WITHOUT ANY HELP/SUPPORT?

☐ **YES** ☐ **NO**

FOR THIS STUDY, HOW WOULD YOU PREFER TO FILL IN THE QUESTIONNAIRES?

Please tick one box. You will be able to change your mind on the day, if you wish.

☐ **FILL IN QUESTIONNAIRES BY MYSELF**

☐ **FILL IN QUESTIONNAIRES WITH SOME HELP**

☐ **FILL IN QUESTIONNAIRES IN AN INTERVIEW**

PARTICIPANT NAME:

Researcher: Vicky Levell
School of Psychology, Doctoral Programme in Clinical Psychology
University of Southampton, 34 Bassett Crescent East, Southampton, SO16 7PB. 02380 595320

PARTICIPANT ID NO:

Appendix K Consent Form

University of Southampton

School of Psychology

Doctoral Programme in Clinical Psychology

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A STUDY OF THE PERSONAL CHARACTERISTICS OF THE HOMELESS POPULATION

RESEARCHERS: VICKY LEVELL AND NICK MAGUIRE
SCHOOL OF PSYCHOLOGY
DOCTORAL PROGRAMME IN CLINICAL PSYCHOLOGY
UNIVERSITY OF SOUTHAMPTON
34 BASSETT CRESCENT EAST
SOUTHAMPTON
SO16 7PB
TEL: 02380 595320

(please tick)

1. I confirm that I have read and understood the Information Sheet that was given to me (for the above study) and have had the chance to ask questions. ☐

2. I understand that I have a choice to take part in this study and that I can stop at any time (without giving any reason) without the services I receive being affected ☐

3. I have agreed to take part in this study ☐

4. I have been offered a copy of this form ☐

Name of Participant	Date	Signature
Name of Researcher	Date	Signature

PARTICIPANT IDENTIFICATION NUMBER FOR THIS STUDY:

Appendix L Debriefing Statement

University of Southampton

School of Psychology
Doctoral Programme in Clinical Psychology

University of Southampton
Highfield
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Tel +44 (0)23 8059 5321
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A STUDY OF THE PERSONAL CHARACTERISTICS OF THE HOMELESS POPULATION

The aim of this research was to look at some of the personal characteristics of people who are homeless and the difficulties that homeless people face. It is hoped that this may help in creating more suitable and better services for homeless people. Once again, results of this study will not include your name or any other identifying characteristics. The research did not use deception. You may have a copy of this summary if you wish and a summary of the research findings once the project is completed.

If you have any further questions please contact me Vicky Levell at on 02380 595320 or at the following address:

School of Psychology
Doctoral Programme in Clinical Psychology
University of Southampton
34 Bassett Crescent East
Southampton
SO16 7PB

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ.
Phone: (023) 8059 5578.

Thank you for your participation in this research.

Appendix M Handout Sheet

University of Southampton

School of Psychology
Doctoral Programme in Clinical Psychology

University of Southampton
Highfield
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Tel +44 (0)23 8059 5321
Fax +44 (0)23 8059 2588

A STUDY OF THE PERSONAL CHARACTERISTICS OF THE HOMELESS POPULATION

Thank you for taking part in this study.

From time to time, everyone feels angry, scared, sad or worried – especially when things are not going very well in their lives. Sometimes, these kinds of feelings can last for quite a long time and it can affect the way people feel about themselves, the way they think about things and the way they cope and do things in their everyday life.

This might not apply to you – but if it does, you might find it helpful to get some advice and support around this.

WHERE TO GET HELP:

If you think you might need or want some help and support, or if you just want someone to talk to, please get in touch with any of these people, who will be able to help you:

- Your support worker at the service
- Dr (the service's healthcare GP) on
- The Samaritans on: 08457 90 90 90

RESEARCHERS: VICKY LEVELL AND NICK MAGUIRE
SCHOOL OF PSYCHOLOGY
DOCTORAL PROGRAMME IN CLINICAL PSYCHOLOGY
UNIVERSITY OF SOUTHAMPTON
34 BASSETT CRESCENT EAST
SOUTHAMPTON
SO16 7PB
TEL: 02380 595320

Appendix N Voucher Confirmation Sheet

University of Southampton

School of Psychology
Doctoral Programme in Clinical Psychology

University of Southampton
Highfield
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Fax +44 (0)23 8059 2588

A STUDY OF THE PERSONAL CHARACTERISTICS OF THE HOMELESS POPULATION

VOUCHERS CONFIRMATION SHEET

'I confirm that I have received my £5 food voucher given to me as a Thank You for participating in this study'

Date	Name of participant	Signature of participant	Signature of researcher