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## **Time Perspective, Depression, and Substance Misuse Among the Homeless**

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### **Abstract**

Using the Zimbardo Time Perspective Inventory (ZTPI; P. G. Zimbardo & J. N. Boyd, 1999), the authors found that homeless people, in comparison with a control group, had a significantly more negative outlook concerning their past and present as evinced by high Past-Negative and Present-Fatalistic scores and low Past-Positive scores on the ZTPI. However, the homeless individuals were almost indistinguishable from control participants on measures of Present-Hedonism and Future thinking. The homeless individuals had significantly higher levels of depression, with 31 out of 50 (62%) reaching criteria for probable depression. However, this finding was unrelated to their atypical time perspective. There was no significant relation between substance misuse and time perspective. Despite their current difficulties, including depression and drug abuse, the homeless individuals maintained a propensity toward future thinking characterized by striving to achieve their goals..

## **Introduction**

Homelessness is associated with a range of medical, psychological and social problems. Mortality rates are many times higher among homeless compared with securely housed populations (Cheung & Hwang 2004). Homeless people report high levels of loneliness and this is related to them describing unfulfilling intimate relationships and feeling socially marginalised (Rokach, 2005). Consequently, they comprise some of the most socially excluded people in society and are vulnerable to violence and victimisation (Padgett, Struening, Andrews & Pittman, 1995).

Despite their vulnerability, many people maintain unsympathetic and negative attitudes concerning the homeless. For example, in several European countries, the general public are more likely to describe homeless people as 'dangerous' than as 'victims' (Brandon, Khoo, Maglajlic & Abuel-Ealeh, 2000). Such views are likely stereotypical and merely reflective of societal prejudices. However, there may be some intrinsic factors associated with homelessness. Some researchers have suggested that among homeless populations hedonism (Goodwin, Kozlova, Nizharadze & Polyakova, 2004) and self-gratification (Rosenthal, Moore & Buzwell, 1994) are particularly problematic as they increase risky sexual behaviour or substance misuse. Furthermore, homeless people are generally socially excluded, and social exclusion has itself been associated with a lack of future planning, and a tendency to be overly orientated to the present (Twenge, Catanese & Baumeister, 2003).

The concept of time perspective is an important topic in psychology (Boniwell & Zimbardo, 2003) and has been extensively studied. Zimbardo and Boyd (1999), using factor analysis, have identified five different time perspectives. The first is Past-Negative, reflecting a tendency to think of the past as aversive, focusing on unpleasant memories; this is in contrast with Past-Positive, a tendency to have pleasant, sentimental or nostalgic attitudes to past memories. Thus, Zimbardo and Boyd suggest that there are two different ways of thinking about the past: either positively or negatively. Similarly, they have identified two ways of thinking about the present: Present-Hedonistic and Present-Fatalistic, the former reflecting impulsiveness and risk taking and the latter reflecting a helpless and hopeless attitude to life. The final factor, Future, suggests striving to achieve future goals. Boniwell and Zimbardo (2004) have argued that optimal performance in life and the attainment of happiness are dependent on maintaining a balance between mentally focusing on the past, the present and the future.

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In student participants depression scores are highly correlated with all of Zimbardo and Boyd's five factors (Zimbardo & Boyd, 1999). This suggests that depression has a significant interaction with time perspective. Among the homeless, there is ample evidence of depression. One large survey of homeless people, in Madrid and Los Angeles found rates of 14.9% and 17.5%, respectively (Muñoz, Vázquez, Koegel, Sanz & Burnam, 1998). Therefore, it is important to consider levels of concurrent depression when examining time orientation among the homeless.

Furthermore, there is a strong association between homelessness and drug addiction (Kemp, Neale & Robertson, 2006), and the latter may of course be associated with a short term hedonistic time perspective. Indeed, an influential theory concerning chemical dependence is based on such a principle of hedonism (Wise, 1996). In fact, there is strong evidence of a link between substance misuse and time perspective, particularly Future thinking, low scores on which may encourage initial initiation and continued drug use (Apostolidis, Fioulaine & Soulé, 2006). Therefore, we wished to examine the relationship between substance misuse and time perspective among the homeless.

If homeless people tend to focus more on the present, then this could be attributable to the day-to-day problems they experience in life, with associated sadness or even depression. Hence, we hypothesised that homeless participants would display different time perspectives, and increased levels of depression when compared with securely housed control participants. Furthermore, time perspective would be related to depression and substance misuse.

## **Method**

### **Participants**

A sample of 50 homeless people was recruited from various homeless services around the city of Sheffield, in the north of England. Of these, 24 (48%) had slept in a charity based homeless shelter the previous night. Seven (14%) had slept outdoors and three (6%) had slept temporarily at the homes of friends or family. The remaining 16 (32%) had slept in various temporary housing services provided by the state. Twenty six (52%) people described either alcohol or drug misuse as their primary reason for becoming homeless; indeed, 25 (50%) described regular drug use over the past month, usually heroin and/or crack cocaine (14/25, 56%). As a group they had spent a mean of 57.4 (range 2-252) months homeless over their lifetime.

Fifty domiciled control participants were selected to match as closely as possible the demographics of the homeless sample. The homeless data were collected first and then the 50 control participants were selected from the general population to match for age and gender distribution. The control participants were pedestrians approached by the researchers in a central area of the city and asked if they would like to take part in a psychology research project. The locations at which the controls were approached were in the same area as the homeless participants were recruited.

All participants were British born and spoke English as their first language. The control group was comprised entirely of white participants, similarly the homeless group was comprised of predominantly white participants, although two (4%) were black. This is broadly representative of the ethnic composition of the city of Sheffield as a whole.

### **Measures**

All participants completed the Zimbardo Time Perspective Inventory (ZTPI). This is a 56 item self-report scale, with subscale test-retest Pearson's R coefficients ranging from .70 to .80, and predictive validity that has been demonstrated in experimental, correlational and case study research. For example, ZTPI scores have been shown to be related to hoped for length of life, watch wearing and goal focus amongst other things (Zimbardo & Boyd, 1999). The Zung Self-rating Depression Scale (Zung, 1965) was used to test our hypothesis that time perspective and depression scores would be correlated. This is a 20 item self-report scale with a good test-retest reliability

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having a Pearson's R coefficient of .92 (Fountoulakis et al. 2001). Validity has been established by its ability to distinguish between individuals with and without a DSM-IV diagnosis of depression (Thurber, Snow & Honts, 2002). As we anticipated lower IQs among the homeless (Spence, Stevens & Parks, 2004), IQ was estimated with the Wechsler Test of Adult Reading (WTAR; Wechsler, 2001). This provides an IQ estimation based on the reading of irregular words, and is conceptually related to the widely used National Adult Reading Test (Nelson and Willison, 1991). The WTAR is specifically designed to estimate IQ and has good split-half reliability, with Pearson's R coefficients ranging from .87 to .97, and test-retest reliability with coefficients ranging from .90 to .94 for different samples. The validity of the WTAR is demonstrated by its high Pearson's R coefficients, ranging from .63 to .80, (Wechsler, 2001) with scores on the Wechsler Adult Intelligence Scale III (Wechsler, 1997).

## **Procedure**

All participants were administered the WTAR to estimate IQ and were questioned to gain demographic information. They were then asked to complete the ZTPI and The Zung Self-rating Depression Scale. In addition, substance misuse histories were recorded in the homeless group. Written informed consent was given by all participants. The study was approved by the local research ethics committee.

## Results

For the between group comparisons, two-tailed ANOVA calculations were used with an alpha level of .05 and effect size estimated with eta squared ( $\eta^2$ ). All correlations also used a .05 alpha level. Demographic details comparing the homeless and control groups, as well as estimated IQ, time perspective and depression scores, are shown in Table 1. The groups were well matched in terms of age and gender. As expected, the homeless had significantly fewer years of education ( $F(1,98)=43.18, p<.001, \eta^2=.306$ ) and lower estimated IQ scores ( $F(1,98)=25.17, p<.001, \eta^2=.204$ ).

**Table 1. Mean (SD) demographic, IQ, time perspectives and depression scores**

Characteristic / Score	Homeless $N=50$	Control $N=50$
Age	33.40 (7.55)	33.50 (10.25)
Male:Female ratio	42:8	42:8
Years of education***	10.32 (2.17)	13.16 (2.15)
Estimated IQ***	88.32 (16.51)	100.64 (5.40)
Past-Negative***	3.73 (0.60)	2.85 (0.63)
Present-Hedonistic	3.59 (0.48)	3.60 (0.46)
Future	3.02 (0.49)	3.08 (0.59)
Past-Positive**	3.05 (0.65)	3.48 (0.57)
Present-Fatalistic**	3.21 (0.66)	2.86 (0.51)
Depression***	62.14 (9.72)	47.54 (7.84)

\*\* $p<.01$ , \*\*\* $p<.001$

The homeless group scored significantly higher on the Past-Negative ( $F(1,98)=51.54, p<.001$ ) and the Present-Fatalistic ( $F(1, 98)=8.93, p=.004$ ) scales, and had significantly lower scores on the Past-Positive ( $F(1,98)=12.34, p=.001$ ). However, their scores on the Present-Hedonistic ( $F(1,98)=.016$ ,

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$p=.899$ ) and Future scales ( $F(1,98)=.289, p=.592$ ) were remarkably similar to the comparator group, and were not significantly different (both  $p>.5$ ). In terms of effect size, Past-Negative scores had a large effect size ( $\eta^2=.345$ ), the Past-Positive had a moderate effect size ( $\eta^2=.119$ ) and the Present-Fatalistic scores a small to moderate effect size ( $\eta^2=.084$ ). For the two non-significant comparisons, the Present-Hedonistic ( $\eta^2<.001$ ) and Future scales ( $\eta^2=.003$ ), the effect sizes were minimal.

Compared to the controls, the homeless had significantly higher depression scores ( $F(1, 98)=68.39, p<.001, \eta^2=.411$ ). Indeed, only four of the control group (8%) but 31 (62%) of the homeless group scored above the relatively stringent depression cut-off score of 60 recommended by Thurber, Snow and Honts (2002). The correlations between depression scores and time perspective scores are shown in Table 2. Among the homeless there were no significant correlations between depression and time perspective scores, suggesting that the latter are independent of depression. Within the control sample, only the Past-Negative scale was significantly associated with depression scores ( $r=.35, p=.013$ ). This was a positive correlation indicating higher scores on the Past-Negative scale were associated with higher rates of depression.

**Table 2. Pearson correlation coefficients of the five time perspective sub-scale scores with depression scores for the homeless and control groups**

ZTPI Scale	Homeless	Control
Past-Negative	.12	.35*
Present-Hedonistic	.04	.04
Future	-.10	-.16
Past-Positive	-.03	.13
Present-Fatalistic	.17	.16

\*  $p<.05$



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To investigate the possible influence of substance misuse on time perspective, the homeless sample was divided into three groups. These were: those who had never been regular drug users ( $n=12$ ), those who had experienced some drug use in the past, but had not used heroin or crack cocaine regularly in the past year ( $n=20$ ), and those who had used heroin or crack cocaine regularly in the past year ( $n=18$ ). Regular drug use was defined as using at least four days per week over at least a two week period. There were no significant differences between the different drug use groups on time perspective or depression, although the Present-Fatalistic scale was approaching significance ( $F(2,47)=2.85$ ,  $p=.068$ ,  $\eta^2=.054$ ). All of the remaining comparisons had  $p$  values greater than .283.

Finally, as the homeless group had lower education and estimated IQ levels, all of the analyses were repeated using these variables as covariates. For the main comparisons between groups on ZTPI scores, ANOVA calculations were repeated with IQ and education as covariates. The results remained essentially the same. The homeless group scored significantly higher on the Past-Negative ( $F(3,99)=17.50$ ,  $p<.001$ ) and Present-Fatalistic ( $F(3,99)=4.15$ ,  $p=.008$ ) scales, and had significantly lower scores on the Past-Positive ( $F(3,99)=4.24$ ,  $p=.007$ ). Similarly, the scores did not differ significantly between the groups for either the Present-Hedonistic ( $F(3,99)=1.58$ ,  $p=.200$ ) or Future scales ( $F(3,99)=.140$ ,  $p=.936$ ). For the correlations between ZTPI and depression scores, these were repeated as partial correlations controlling for IQ and education, within the separate groups. The results were essentially the same in the homeless group, with no significant correlations. The relationship between depression and Present-Fatalistic scores was approaching significance ( $p=.094$ ), but the other relationships all had  $p$  values greater than .372. Considering the relationship between ZTPI and depression scores among the control sample, the results remained the same, with the exception that the correlation between depression and Past-Negative scores was now only approaching significance ( $p=.011$ ).

## **Discussion**

Despite their obvious difficulties, in that they were currently homeless and experiencing high rates of depression and substance misuse, our index sample nevertheless evinced 'normal' outlooks concerning planning for the future and long term gratification as opposed to current hedonism. This is shown in the very similar scores on the ZTPI scales of Present-Hedonistic and Future orientation between the groups. However, the homeless scored significantly higher on the Present-Fatalistic orientation, indicating a feeling of helplessness and a belief that external forces control their lives. Boniwell and Zimbardo (2003) have suggested that this may be a realistic and not necessarily maladaptive orientation for people living in poverty.

Time orientation has been described once before among a sample of homeless people. Epel, Bandura and Zimbardo (1999) reported a study showing that those shelter residents who scored higher on future orientation had shorter durations of homelessness. Although a useful study, these authors used a three factor time perspective scale that predated the validated five factor ZTPI model of Zimbardo and Boyd (1999) employed in the current study. Furthermore, as their study did not incorporate a control group, it is not possible to determine whether their homeless sample scored abnormally. Nevertheless, this is clearly a new field of investigation in homelessness studies.

A further characteristic of the time perspectives exhibited by our homeless sample is a notably negative orientation towards their past. We found that compared with the controls the mental outlook of the homeless group was characterised by less Past-Positive thinking and more Past-Negative thinking. Boniwell and Zimbardo (2003) suggest that a time perspective that is negative concerning the past is related to focusing on past aversive or noxious experiences and a lack of sentimental or nostalgic thinking. In accordance with this, homeless people often report a poor quality of life in the past and high levels of aversive experiences, such as childhood sexual abuse and violence (Spence et al., 2006).

Within the control group there was a significant positive correlation between Past-Negative scores and depression scores, however, this relationship was not significant when the analysis was repeated while controlling for IQ and years of education. The negative view of the past, and Present-Fatalistic perspective among the homeless group appears to be independent of depression. None of the time perspective scores of the index group were correlated with depression. Nevertheless, the self-reported high levels of depression among our homeless sample are consistent

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with other studies reporting a high incidence of clinical depression using standardised diagnostic criteria in this population (e.g., Muñoz et al., 1998).

Our homeless group had significantly fewer years of education and lower estimated IQ scores than controls (88.32 compared to 100.64). As the estimated population mean of IQ scores is 100, with a standard deviation of 15, the control group appears to be at the mid-point of the 'average range', while the homeless group scored a mean that would be considered in the 'low average' range (Wechsler, 1999). This is consistent with previous studies reporting average to low average IQ scores among homeless samples (Spence et al, 2004).

The discrepancy in IQ between the groups was considered as a possible explanation for the difference in time perspectives. However, this was rejected as repeating the group comparisons whilst co-varying for IQ did not change the findings. Similarly, substance misuse was not related to time perspective in our homeless sample. This is contrary to what has been reported in securely housed samples, in which time perspective, and particularly Future thinking, is inversely related to substance misuse (Apostolidis et al 2006). It is possible that our homeless sample are a special case, and perhaps use drugs for different reasons than many in the general population. It could be postulated for example, that self-medication related drug use is more common among the homeless. However, it should also be noted that among our sample, Present-Fatalistic scores were approaching a significant relationship to substance misuse, and a larger sample may have uncovered significant effects. Clearly, this is an issue open to further investigation.

It might appear contradictory that the homeless group is at a similar level as the control group on measures of Future orientation, while reporting feelings of helplessness on the Present –Fatalistic orientation. However, these perspectives are psychometrically independent, as they were derived by factor analysis, so this remains a viable and interesting finding. Furthermore, as described above, a high Present-Fatalistic score may be considered normal in conditions of poverty. This raises the issue of whether the time perspective profile reported in this study is specific to homelessness or reflective only of a group experiencing poverty. However, although the homeless sample share the experience of poverty with a sizeable proportion of the securely housed public, there are also likely to be many differences between these groups. It would be of interest to perform further research examining at the influence of socio-economic status among securely housed groups on all five scales of the ZTPI. This is perhaps particularly pertinent given recent interest in the widespread

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impact of social inequality upon many aspects of psychological and physical function (e.g., see Wilkinson, 2005).

In summary, the negative outlook of the homeless participants on their past, and their fatalistic outlook on their present, appears to be independent of education, IQ, depression and substance misuse. The 'typical' mental outlook of homeless people is perhaps surprisingly normal relating to their future. Despite their high rates of depression and other problems, homeless people remain forward thinking. Contrary to some stereotypes, they have aspirations like other human beings.

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