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## Key findings

- The overall quality of life reported by Australian Regular Ecstasy Users (REU), as measured by the Australian Unity Personal Wellbeing Index (PWI), were lower compared to the general Australian population, with REU also reporting less satisfaction with their standard of living, health and life achievements.
- Unemployment and recent bingeing were associated with decreases in overall PWI scores among REU, indicating less overall life satisfaction.
- Completion of year 12 was associated with an increase in overall PWI scores among REU, indicating more overall life satisfaction.
- In general, changes in the self-reported quality of life of REU are more closely linked with variations in their socio-economic circumstances than their patterns of drug use.

## The Personal Wellbeing of Regular Ecstasy Users in Australia

### Introduction

People start<sup>1</sup>, or stop<sup>2</sup>, using ecstasy for a variety of reasons. Ecstasy users have themselves reported the risks and benefits of taking ecstasy<sup>3</sup>, and are known to take active measures to reduce the negative consequences associated with their use of illicit drugs<sup>4</sup>.

The literature on the consequences of ecstasy use has centred on the health of users. This work has documented how Regular Ecstasy Users (REU) are at risk of acute or chronic harms related to the use of the drug<sup>5</sup>, including effects in the domain of mental health<sup>6</sup>. However, few studies have examined how REU compare with other populations in terms of overall quality of life or personal wellbeing. This contrasts with a small number of studies examining the Quality of Life of other illicit drug using sub-populations, such as injecting drug users<sup>7,8</sup>. Previous Australian REU samples have generally been populations characterised by high levels of education and social integration<sup>9</sup>. Nevertheless, an understanding of the factors that have a negative or positive effect on their reported quality of life can be used to target harm reduction practice.

In this Bulletin we explore the self-reported Quality of Life of REU recruited into the 2009 Ecstasy and Related Drugs Reporting System (EDRS) project. Further, we seek to examine the how Quality of Life varies across some of the demographic and drug use characteristics of the sample.

### Methods

Data were obtained from the 2009 EDRS, a system designed to monitor the price, purity and availability of 'ecstasy' (MDMA) and other related drugs such as methamphetamine, cocaine, GHB and ketamine. The EDRS also examines trends in the use and harms of these drugs. While three types of data are collected as part of the EDRS: (1) surveys of REU; (2) surveys of key experts who have contact with REU through the nature of

their work; and 3) the analysis of existing data sources that contain information on ecstasy and related drugs), we focus here on data collected through the EDRS surveys of REU.

In 2009, 756 REU were interviewed from all Australian states and territories as part of the EDRS. In addition to the usual questions on participants' demographics and patterns of drug use, data were collected on the REUs' quality of life using the Australian Unity Wellbeing Index<sup>10</sup>. This Personal Wellbeing Index (PWI) has been developed to measure population-level quality of life with measures of subjective wellbeing taken across seven aspects of personal life – health, personal relationships, safety, standard of living, achieving, community connectedness, and future security. The PWI can be compiled to produce an overall score on a standardised scale that ranges from 0 (completely dissatisfied) to 100 (completely satisfied). In Western nations, the average value for population samples is about 75 with a range from 70 points to 80 points. The subscales of the PWI are scored similarly, but produce a different scoring range dependent upon the particular subscale in question.

## Analysis

PWI subscale scores were generated for each of the seven domains. Aggregated overall PWI scores were generated as an average across these domains. T-tests were used to compare scores among REU and the 2009 Australian population sample aged 18-25 years<sup>11</sup>. The Australian 18-25 year old age group was selected as the median age among the 2009 EDRS sample was 22 years of age and 72% sample were in this age group.

All data were analysed using Stata version 10 (StataCorp, Texas, USA). Univariate linear regression was used to identify correlates that had an effect on each outcome measure -the PWI subscales, as well as the PWI measure overall. All correlates identified with  $p < 0.1$  were included in a final multivariable linear regression model for each outcome measure. Potential correlates were selected on the basis of previous research on REU<sup>5</sup> and included reported: education (finished year 12, yes/no), history of incarceration (yes/no), current employment status

**Table 1: Demographic characteristics and mean PWI scores**

	Standard of Living	Health	Achieve in Life	Relations	Safety	Connected with Community	Future Security	PWI SUMMARY
<b>REU 2009 mean PWI score</b>	<b>74.2*</b>	<b>67.6*</b>	<b>68.9*</b>	<b>74.4</b>	<b>81.6</b>	<b>70.7</b>	<b>68.0</b>	<b>72.3*</b>
<b>AUST POPULATION<sup>11</sup> Mean PWI score (18-25yo)</b>	<b>80.6</b>	<b>80.4</b>	<b>75.6</b>	<b>75.7</b>	<b>81.3</b>	<b>67.1</b>	<b>71.5</b>	<b>76.1</b>
<b>VARIABLES</b>								
<b>Age (n=756)</b>								
<23 years old (54%)	75.4	66.3	69.6	75.9	81.9	70.3	68.6	<b>72.7</b>
≥ 23 years (46%)	72.9	69.0	68.1	72.6	81.2	71.1	67.3	<b>72.0</b>
<b>Completed high school (n=756)</b>								
YES (71%)	76.2	68.2	70.5	75.9	82.7	72.8	69.3	<b>73.8</b>
NO (29%)	69.3	65.8	64.7	70.6	78.7	65.3	64.8	<b>68.5</b>
<b>Prison History (n=735)</b>								
YES (6%)	59.8	63.1	60.0	61.6	75.4	60.7	61.0	<b>62.7</b>
NO (94%)	75.4	67.9	69.5	75.3	82.1	71.3	68.3	<b>73.0</b>
<b>Employment (n=756)</b>								
YES (82%)	76.2	69.0	71.4	75.6	82.3	72.9	70.3	<b>74.1</b>
NO (18%)	65.1	61.0	57.2	69.0	78.5	60.8	57.3	<b>64.3</b>
<b>Injecting History (n=754)</b>								
YES (16%)	66.7	65.0	63.4	69.3	75.5	64.3	60.9	<b>66.8</b>
NO (84%)	75.8	68.0	70.0	75.4	82.8	71.9	69.4	<b>73.4</b>
<b>Recent bingeing (n=754)</b>								
YES (36%)	71.9	63.2	65.1	72.0	79.8	69.8	63.8	<b>69.2</b>
NO (64%)	75.5	69.9	70.9	75.7	82.5	71.1	70.4	<b>74.0</b>
<b>Freq. drug use (n=756)</b>								
< fortnight (22%)	76.2	70.3	71.3	75.6	82.7	73.3	68.9	<b>74.4</b>
> fortnight (78%)	73.7	66.8	68.2	74.0	81.3	70.0	67.7	<b>71.8</b>
<b>Number drug types used recently (n=756)</b>								
0-4 (17%)	76.8	71.1	71.9	74.1	83.3	69.6	71.7	<b>74.5</b>
5-7 (49%)	74.5	68.3	69.7	75.2	81.4	71.0	68.2	<b>72.7</b>
>7 (34%)	72.7	64.7	66.2	73.4	81.0	70.8	65.8	<b>70.7</b>

\*t-test between REU 2009 and Australian Population  $p < 0.05$

(employed/unemployed), history of injecting any drug (yes/no), use of any stimulant drug for more 48 hours without sleeping in preceding six months (recent bingeing – yes/no), frequency of ecstasy and related drugs use (use less than or more than fortnightly), number of drug types used in last six months (<4, 5-7, 7+). Estimated correlation coefficients on adjusted PWI correlates and their 95% confidence intervals are reported at a statistical significance level at  $p < 0.05$ , from final multivariable models only.

## Results

The 2009 REU sample recruited for the EDRS was typically comprised of people who were young, well educated heterosexual males<sup>9</sup>.

The overall PWI scores of the REU sample were significantly lower compared to the general Australian population, with an overall mean PWI score of 72.3 among the REU compared to 76.1 among the general Australian population aged 18-25 years old (Table 1). Mean scores for the PWI subscales related to standard of living, health and life achievements were also significantly lower for the REU sample compared to the Australian population of a similar age.

Among REU, unemployment and recent bingeing were all associated with decreases in the mean overall PWI score (Table 2). A history of incarceration was associated with a

**Table 2: Demographic correlates of PWI\* scores**

PWI measure	Variables affecting PWI score	Regression coefficients	95%CI
PWI	Completed year 12	+3.2	0.9 to 5.5
	Unemployed	-7.1	-9.8 to -4.4
	Recent bingeing <sup>#</sup>	-2.8	-4.9 to -0.7
Standard of living	Completed year 12	+4.3	1.4 to 7.2
	History of incarceration	-7.9	-13.6 to -2.1
	Unemployed	-8.0	-11.5 to -4.6
Health	Unemployed	-6.6	-10.2 to -3.1
	Recent bingeing	-5.5	-8.4 to -2.6
	Age <23 years old	+3.3	0.5 to 6.0
Life achievements	Completed year 12	+3.5	0.4 to 6.6
	Unemployed	-11.9	-15.6 to -8.3
	Recent bingeing	-3.3	-6.2 to -0.5
Personal relationships	History of incarceration	-10.0	-16.9 to -3.2
Personal safety	Being heterosexual	-4.1	-8.0 to -0.1
Community connectedness	Completed year 12	+5.1	1.3 to 9.1
	Unemployed	-9.7	-14.3 to -5.0
Future security	Unemployed	-11.1	-15.4 to -6.7
	Recent bingeing	-4.6	-8.0 to -1.2

\* for variable with  $p < 0.05$

<sup>#</sup> use of any stimulant drug for more than 48hrs without sleeping in the preceding six months

decrease in mean scores for REU's satisfaction with their standard of living and personal relationships. Recent bingeing was associated with lower mean scores for REUs satisfaction overall, their satisfaction with their health, life achievements and future security.

High school completion was associated with an increase in the mean overall PWI score. Unemployment or completion of high school affected six of the seven subscales; with unemployment associated with a greater change in mean scores compared to high school completion. Interestingly, being heterosexual had, on average, a 4.1 point decrease in REU satisfaction surrounding personal safety and being younger than 23 years of age (compared to those aged over 23 years old) was also associated with an increase in mean health satisfaction ratings.

## Discussion

Australian REU sampled as part of the EDRS are a well-educated group of drug users of high socio-economic status when compared to other groups such as injecting drug users. However, their ratings of personal wellbeing appear lower than comparable populations with this study showing that their overall ratings of life satisfaction, satisfaction with their standard of living, their health and achievements in life, as measured using the PWI, were significantly lower compared to the ratings of the Australian population of comparable age.

Being unemployed, having a history of incarceration or reporting a recent binge on ecstasy or related drugs were all associated with reduced overall PWI scores with unemployment and previous incarceration associated with the greatest reduction in scores. In contrast, high school completion was associated with higher overall PWI scores.

In conclusion, in this Bulletin we have shown that sampled REU appear to report lower levels of personal wellbeing when compared to the broader Australian population. There was some variation among REU according to drug use patterns with recent bingeing associated with lower satisfaction ratings. This finding highlights the need for further research on the effects of binge patterns of use on the lives of REU and suggests the need for education around moderate use.

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