**Supplementary Tables 1 and 2**

These tables are being provided at the request of a reviewer. However, it is important to note that this study was not designed to investigate associations between these variables. With samples of 25 long-term opiate users and 25 control participants, this study is underpowered to detect weak to moderate bivariate correlations, especially if correction to the alpha level is made to take into account multiple correlations (which are not currently reported in these tables).

Supplementary Table 1

*Correlations between ToM scores and facial emotion recognition accuracy for the control and opiate user groups.*

|  |  |
| --- | --- |
|  | Pearson Correlation with ToMa |
|  | Controls | Opiate Users |
| Happy | -0.30 | 0.07 |
| Surprise | -0.12 | 0.70\*\*\* |
| Anger | 0.24 | 0.54\*\* |
| Disgust | 0.16 | 0.51\*\* |
| Sadness | 0.36 | 0.37 |
| Fear | -0.02 | 0.40\* |
| Total | 0.15 | 0.75\*\*\* |

a Theory of Mind, as measured with the Reading the Mind in the Eyes Test
\**p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Supplementary Table 2

*Correlations between social cognition variables and demographic, clinical and executive function variables for control and opiate user groups*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Age a | Years of Use b | Education c | Anxiety d | Depression d | Verbal Fluency e | Hayling f |
|  | Control | Opiate | Control | Opiate | Control | Opiate  | Control | Opiate  | Control | Opiate  | Control | Opiate  | Control | Opiate  |
| FER g | 0.02 | 0.05 | . | 0.13 | 0.27 | 0.28 | -0.13 | -0.22 | -0.14 | -0.39 | 0.29 | 0.27 | 0.26 | 0.66\*\*\* |
| ToM h | -0.06 | -0.07 | . | -0.22 | 0.06 | 0.17 | 0.18 | -0.22 | 0.15 | -0.48\* | 0.38 | 0.31 | 0.35 | 0.43\* |
| C. Ha i | 0.07 | 0.01 | . | -0.06 | 0.05 | 0.20 | -0.15 | -0.06 | -0.13 | -0.01 | -0.17 | 0.26 | 0.19 | 0.61\*\* |
| C. An i | 0.59\*\* | -0.03 | . | 0.34 | -0.12 | 0.24 | 0.02 | -0.32 | -0.01 | -0.34 | -0.07 | 0.24 | 0.31 | 0.27 |
| Z. Ha j | 0.02 | -0.06 | . | -0.06 | 0.17 | 0.18 | 0.20 | -0.34 | 0.24 | -0.37 | 0.19 | 0.19 | -0.04 | -0.22 |
| Z. An j | 0.01 | 0.22 | . | 0.22 | 0.09 | 0.12 | 0.05 | -0.06 | 0.41\* | -0.19 | 0.04 | 0.25 | 0.27 | -0.05 |

a Age in years

b Number of years since commencing heroin use

c Years of education

d Hospital Anxiety and Depression Scale subscale scores for Anxiety and Depression

e Verbal Fluency scores represent the sum of phonemic and semantic fluency scores

f Hayling Sentence Completion, overall scaled score, range: 1–10

g Facial Emotion Recognition accuracy, summed across the six emotion categories

h Theory of Mind, as measured with the Reading the Mind in The Eyes Test

i Mean *Corrugator* response across the 1 second period after the happy and angry faces were presented

j Mean *Zygomaticus* response across the 1 second period after happy and angry faces were presented

\**p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001