## Supplementary Materials

## Gender Differences in Cannabis Use Disorder Symptoms: A Network Analysis

Emese Kroon\*,1,2, Alessandra Mansueto\*,2,3,6,7, Lauren Kuhns<sup>1,2</sup>, Francesca Filbey<sup>4</sup>, Reinout Wiers<sup>2</sup> & Janna Cousijn<sup>1,5</sup>

<sup>1</sup> Neuroscience of Addiction (NofA) Lab, Department of Psychology, University of Amsterdam, The Netherlands

<sup>2</sup> ADAPT-laboratory, Department of Psychology, University of Amsterdam, the Netherlands

<sup>3</sup> Centre for Urban Mental Health, University of Amsterdam, Amsterdam, the Netherlands

<sup>4</sup> School of Behavioral and Brain Sciences, University of Texas at Dallas, Dallas, TX, USA

<sup>5</sup> Department of Psychology, Education & Child Studies, Erasmus University Rotterdam, The Netherlands

<sup>6</sup> Psychological Methods, Department of Psychology, University of Amsterdam, The Netherlands

<sup>7</sup> Amsterdam School of Communication Research (ASCoR), University of Amsterdam, Amsterdam, the Netherlands

\* Both authors contributed equally to the manuscript

## **Author Note**

Correspondence: Emese Kroon, e.kroon@uva.nl, P.O. box 15916, 1001 NK Amsterdam, The Netherlands

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AM; Investigation: EK & LK; Formal Analysis: EK & AM; Data curation: EK & AM; Writing - Original draft: EK & AM; Writing - Review & Editing:

LK, RW, FF & JC; Visualization: AM; Supervision: JC & RW; Funding Acquisition: JC & FF.

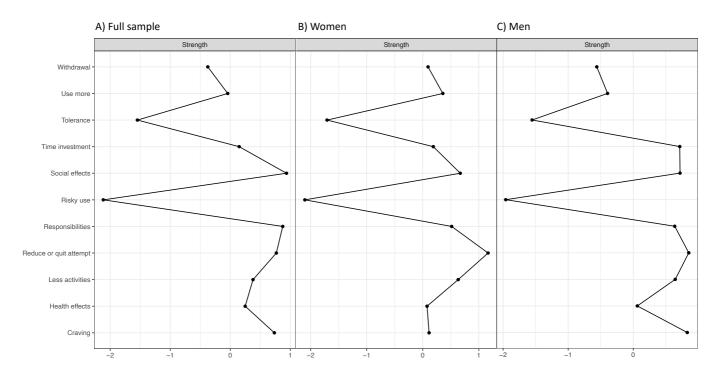
**Declarations of interest:** none

Data Accessibility: The data, code and materials of this study are available from the corresponding author upon reasonable request.

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Figure S1

Strength Centrality of the 11 MINI CUD Symptoms in the CUD Symptom Network



Note: A) Full sample. B) Women. C) Men. Z-scores are shown on the x-axis.

**Figure S2**Edge Bootstraps of the CUD Symptom Network in the Full Sample

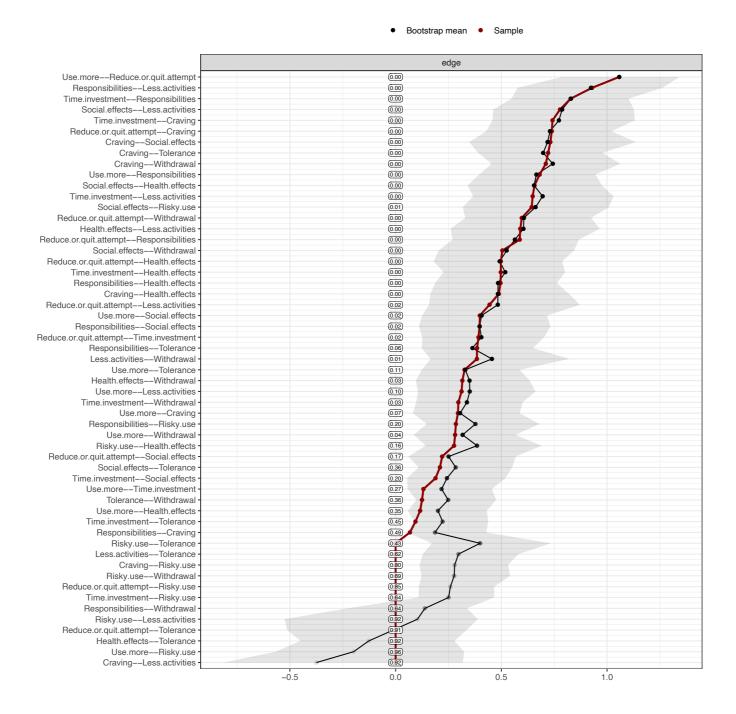
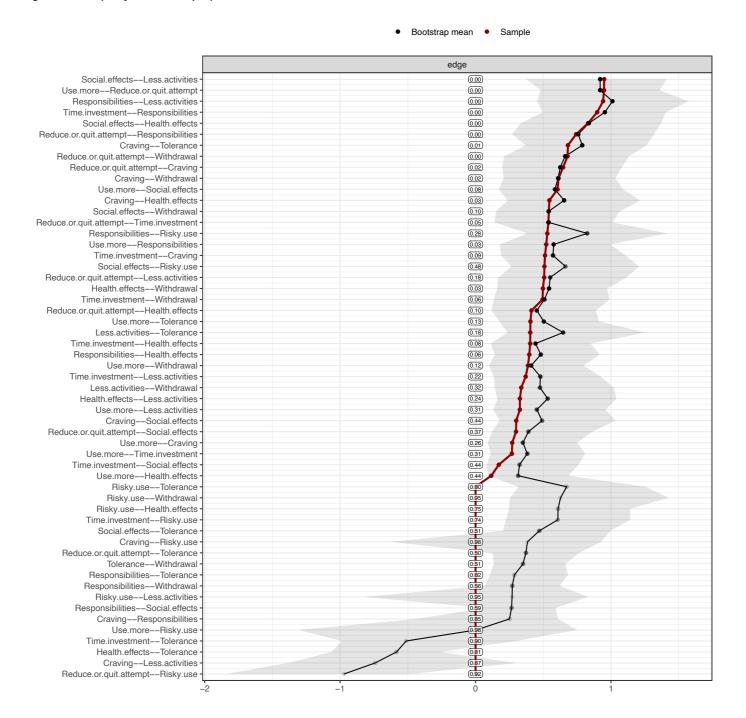
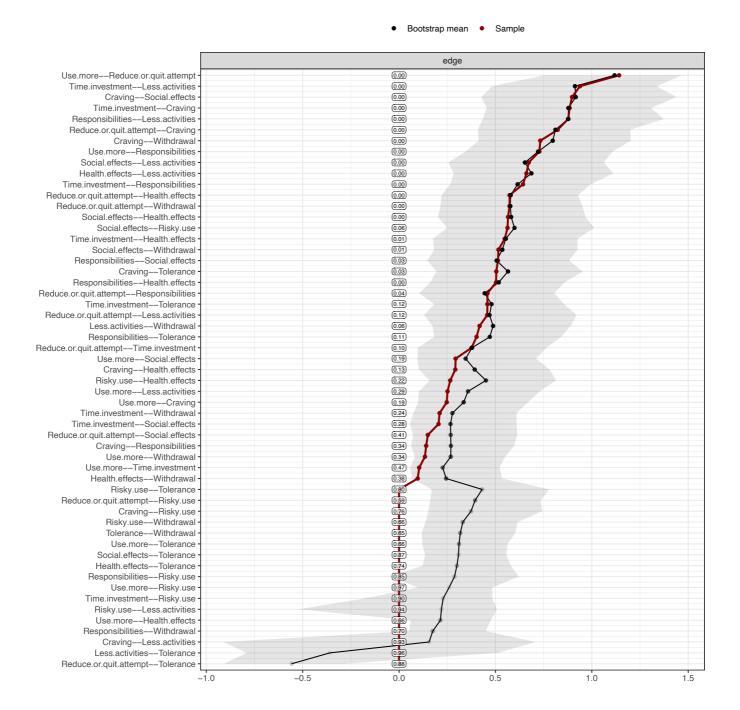


Figure S3

Edge Bootstraps of the CUD Symptom Network in Women



**Figure S4**Edge Bootstraps of the CUD Symptom Network in Men



**Figure S5**Edge Bootstraps of the CUD Symptoms Plus Exploratory Variables Network in the Full Sample

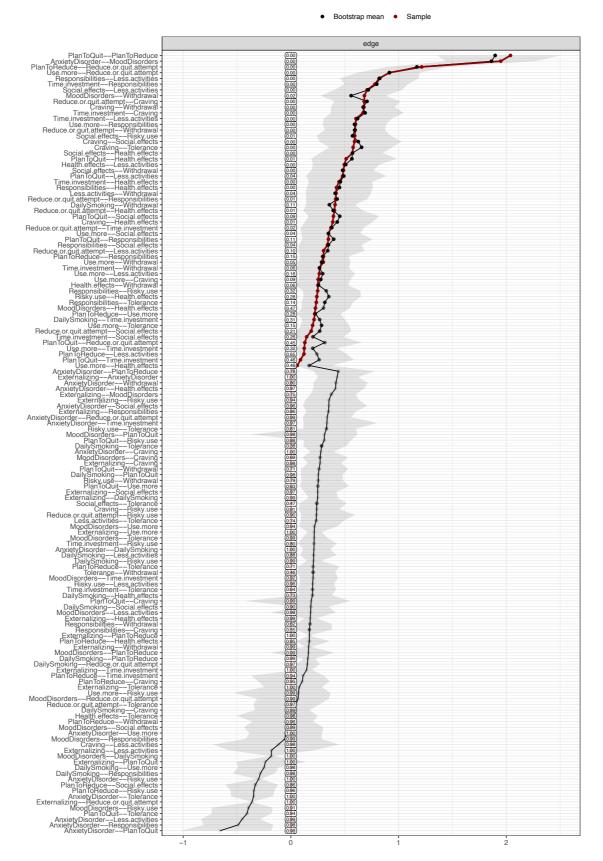
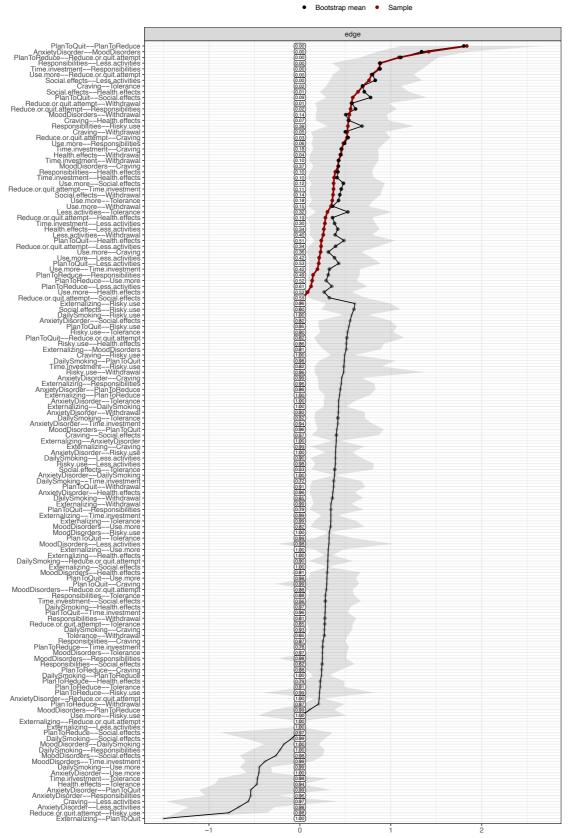
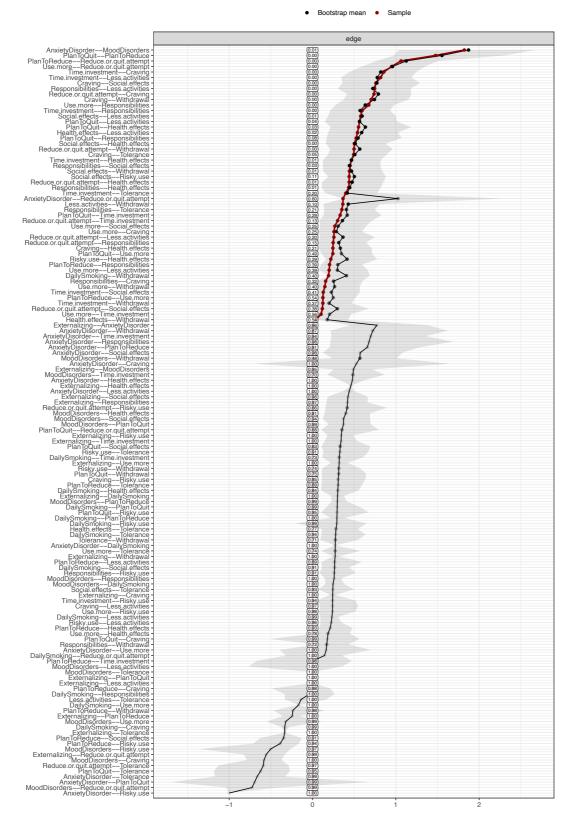


Figure S6

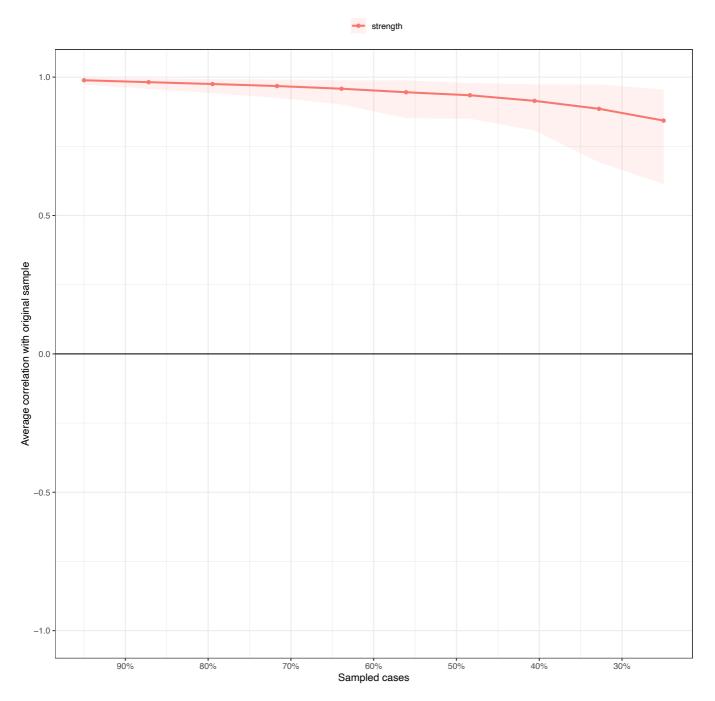
Edge Bootstraps of the CUD Symptoms Plus Exploratory Variables Network in Women



**Figure S7** *Edge Bootstraps of the CUD Symptoms Plus Exploratory Variables Network in Men* 

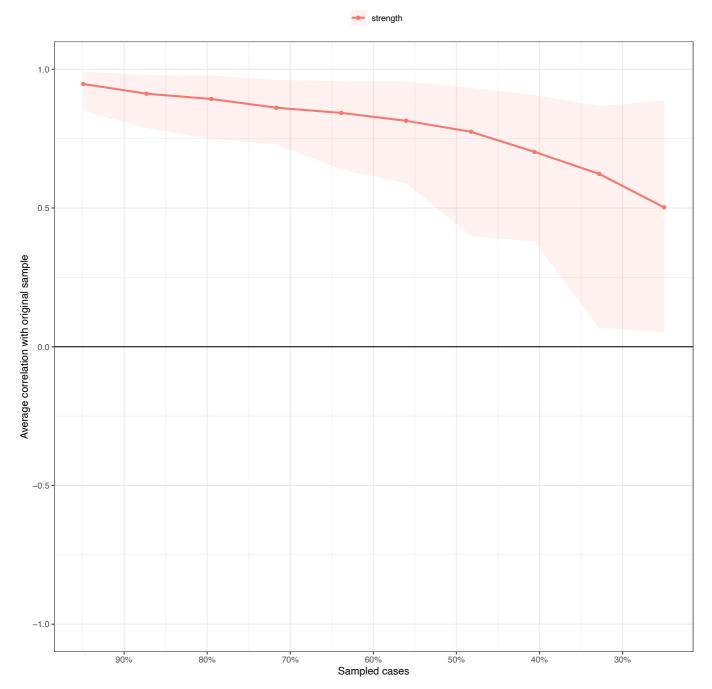


**Figure S8**Strength Centrality Case-dropping Bootstraps for the CUD Symptom Network in the Full Sample



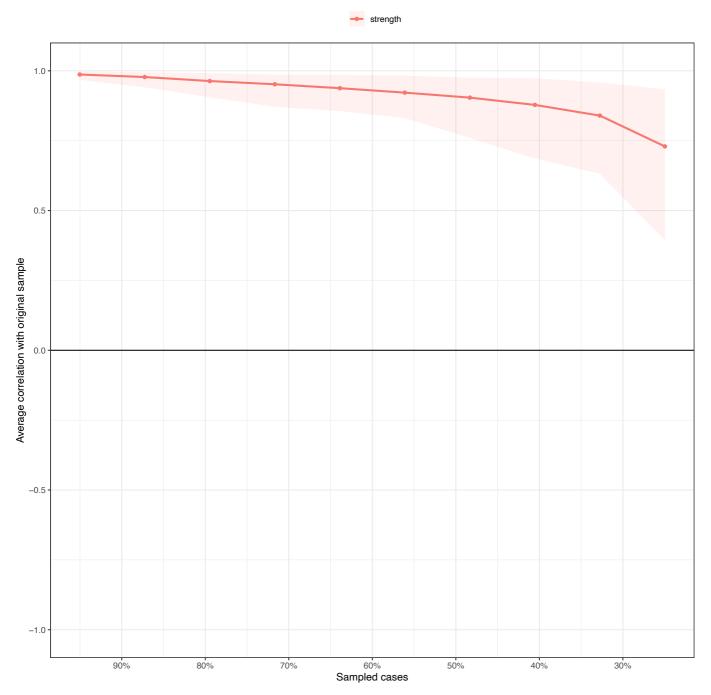
*Note:* The figure shows the correlation of strength between the original and case-dropping sample based on 1000 bootstrapped samples. The correlation is always large, indicating that strength centrality is stable.

**Figure S9**Strength Centrality Case-dropping Bootstraps for the CUD Symptom Network in Women



*Note:* The figure shows the correlation of strength between the original and case-dropping sample based on 1000 bootstrapped samples. The correlation is large except with a very small number of sampled cases, indicating that strength centrality is stable.

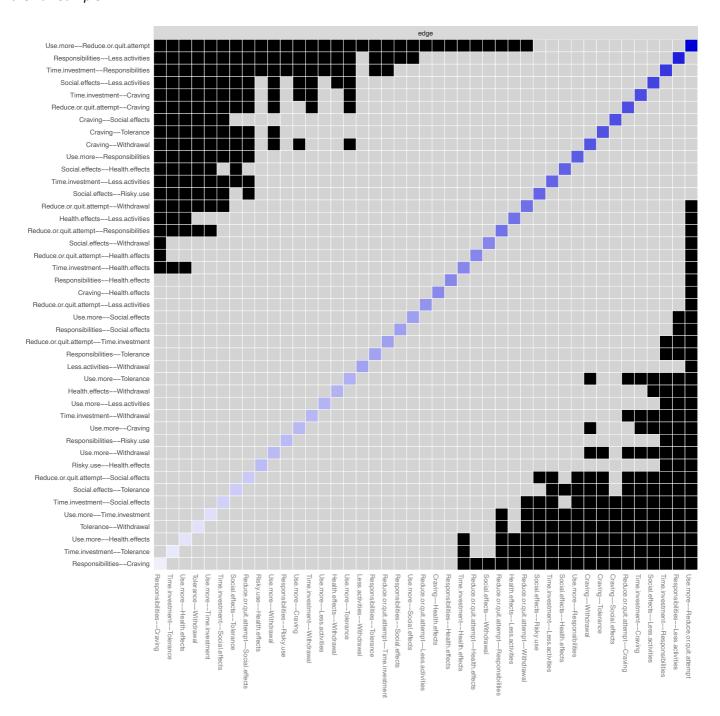
**Figure S10**Strength Centrality Case-dropping Bootstraps for the CUD Symptom Network in Men



*Note:* The figure shows the correlation of strength between the original and case-dropping sample based on 1000 bootstrapped samples. The correlation is always large, indicating that strength centrality is stable.

Figure S11

Bootstrapped Difference Tests to Test for Significant Differences Between Edges Within the CUD Symptom Network in the Full Sample



*Note:* The figure, based on 1000 bootstrapped difference tests, shows a black square for pairs of edges that are significantly different within the CUD symptom network in the full sample. For example, the edge between craving and time investment is significantly larger than the one between craving and responsibilities. Please zoom in the picture if interested in a specific edge difference. Note that this figure does not represent differences in the edges between genders, but how edges differ within the full sample network.

 Table S1

 Edge Weights for the CUD Symptom Networks of Women and Men

Node	Use more	Reduce or quit attempt	Time investment	Craving	Responsibilities	Social effects	Risky use	Health effects	Less activities	Tolerance	Withdrawal
Use more	0.00	1.14	0.10	0.25	0.73	0.29	0.00	0.00	0.25	0.00	0.13
Reduce or quit attempt	0.95	0.00	0.38	0.82	0.46	0.15	0.00	0.57	0.46	0.00	0.57
Time investment	0.27	0.54	0.00	0.88	0.64	0.20	0.00	0.55	0.94	0.46	0.21
Craving	0.27	0.65	0.51	0.00	0.14	0.90	0.00	0.29	0.00	0.50	0.73
Responsibilities	0.52	0.74	0.90	0.00	0.00	0.51	0.00	0.50	0.88	0.40	0.00
Social effects	0.61	0.30	0.17	0.30	0.00	0.00	0.56	0.57	0.67	0.00	0.52
Risky use	0.00	0.00	0.00	0.00	0.53	0.51	0.00	0.27	0.00	0.00	0.00
Health effects	0.12	0.41	0.40	0.55	0.40	0.83	0.00	0.00	0.66	0.00	0.10
Less activities	0.33	0.51	0.37	0.00	0.94	0.95	0.00	0.33	0.00	0.00	0.42
Tolerance	0.41	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.40	0.00	0.00
Withdrawal	0.39	0.68	0.49	0.61	0.00	0.54	0.00	0.50	0.34	0.00	0.00

*Note:* Edge weights for women are in the lower triangle, while edge weights for men are in the upper triangle. Bold text indicates edges that were significantly different between genders without controlling for multiple comparisons.

 Table S2

 Edge Weights for the CUD Symptom and Exploratory Variable Networks of Women and Men

Node	Externalizing diagnosis	Anxiety diagnosis	Mood diagnosis	Daily cigarette	Plan to quit	Plan to reduce	Use more	Reduce or quit attempt	Time investment	Responsi- bilities	Craving	Social effects	Risky use	Health effects	Less activities	Tolerance	Withdrawal
Externalizing diagnosis	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Anxiety diagnosis	0.00	0.00	1.82	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mood diagnosis	0.00	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily cigarette	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
Plan to quit	0.00	0.00	0.00	0.00	0.00	1.48	0.24	0.00	0.33	0.52	0.00	0.00	0.00	0.55	0.56	0.00	0.00
Plan to reduce	0.00	0.00	0.00	0.00	1.84	0.00	0.12	1.06	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Use more	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.95	0.10	0.68	0.26	0.27	0.00	0.00	0.20	0.00	0.15
Reduce or quit attempt	0.00	0.00	0.00	0.00	0.00	1.09	0.79	0.00	0.30	0.25	0.74	0.12	0.00	0.44	0.26	0.00	0.50
Time investment	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.37	0.00	0.60	0.86	0.13	0.00	0.47	0.82	0.40	0.12
Responsibilities	0.00	0.00	0.00	0.00	0.00	0.15	0.48	0.56	0.87	0.00	0.16	0.45	0.00	0.43	0.75	0.35	0.00
Craving	0.00	0.00	0.42	0.00	0.00	0.00	0.23	0.52	0.46	0.00	0.00	0.76	0.00	0.24	0.00	0.49	0.70
Social effects	0.00	0.00	0.00	0.00	0.58	0.00	0.37	0.04	0.00	0.00	0.00	0.00	0.44	0.50	0.58	0.00	0.44
Risky use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.22	0.00	0.00	0.00
Health effects	0.00	0.00	0.00	0.00	0.24	0.00	0.09	0.28	0.38	0.39	0.53	0.64	0.00	0.00	0.54	0.00	0.04
Less activities	0.00	0.00	0.00	0.00	0.21	0.12	0.21	0.23	0.28	0.89	0.00	0.76	0.00	0.26	0.00	0.00	0.36
Tolerance	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.30	0.00	0.00
Withdrawal	0.00	0.00	0.54	0.00	0.00	0.00	0.34	0.57	0.42	0.00	0.52	0.37	0.00	0.45	0.26	0.00	0.00

*Note:* Edge weights for women are in the lower triangle, while edge weights for men are in the upper triangle. Bold text indicates edges that were significantly different between genders without controlling for multiple comparisons.