

1 **Supplementary Methods**

2 Hierarchical Clustering

3 To further interpret the correlation results between the SZ and HC and identify patterns in
 4 how certain features might be grouped together, we performed hierarchical clustering,¹ which
 5 begins with individual feature groups and iteratively aggregates similar features. Results of the
 6 cluster analysis are shown below. In both groups, sociability features generally clustered together
 7 whereas mobility features were distributed across all clusters. Active data features clustered
 8 more closely together in HC than SZ.

9 **Feature Clusters in SZ. Blue = Passive Mobility, Green = Passive Sociability, and Red =**
 10 **Active**

<u>Cluster 1</u> Hometime, ProbPause, MinsMissing, CirdnRtn, WkEndDayRtn, text_responsiveness, sleep, medication	<u>Cluster 2</u> DistTravelled, RoG, MaxDiam, MaxHomeDist, AvgFlightLen, StdFlightLen
<u>Cluster 3</u> SigLocsVisited, SigLocEntropy, outgoing_texts, outgoing_textlengths, text_outdegree, incoming_texts incoming_textlengths, text_indegree, text_reciprocity, outgoing_calls, outgoing_calllengths, call_outdegree, incoming_calls, incoming_calllengths, call_indegree, call_reciprocity, call_responsiveness	<u>Cluster 4</u> AvgFlightDur, StdFlightDur, social, psychosis, depression, anxiety

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12 **Feature Clusters in HC. Blue = Passive Mobility, Green = Passive Sociability, and Red =**
 13 **Active**

<u>Cluster 1</u> Hometime, ProbPause, MinsMissing, CirdnRtn, WkEndDayRtn, outgoing_texts, outgoing_textlengths, text_outdegree, incoming_texts, incoming_textlengths, text_indegree, text_reciprocity, outgoing_calls, outgoing_calllengths, call_outdegree, incoming_calls, incoming_calllengths, call_indegree, call_reciprocity, call_responsiveness	<u>Cluster 2</u> DistTravelled, RoG, MaxDiam, SigLocsVisited, AvgFlightLen, StdFlightLen, SigLocEntropy, text_responsiveness, sleep, social, psychosis, depression, anxiety
<u>Cluster 3</u> MaxHomeDist	<u>Cluster 4</u> AvgFlightDur, StdFlightDur

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15 **References**

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- 17 1. Ward Jr, J. H. Hierarchical grouping to optimize an objective function. *J. Am. Stat. Assoc.*
18 **58**, 236–244 (1963).

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