**SUPPLEMENTARY APPENDIX A**

**Table A1.** Baseline characteristics of clustering of BD patients based on their mood instability

|  |  |  |  |
| --- | --- | --- | --- |
| **Baseline characteristics** | **Cluster 1**  **“High Instability”**  **(N=43)** | **Cluster 2**  **“Low Instability”**  **(N=43)** | **p value1** |
| **Demographical variables** |  |  |  |
| Age at onset - years (mean, SD) | 25.9 (8.0) | 23.3 (7.8) | 0.366 |
| Male sex – (%) | 13 (30.2) | 14 (32.6) | 1.000 |
| Length of follow up (yr) (mean, SD) | 6.0 (2.9) | 5.9 (2.6) | 0.807 |
| Education (mean, SD)  **Baseline clinical variables** | 14.69 (2.7) | 14.6 (3.5) | 0.849 |
| BD type I – (%) | 18 (39.1) | 28 (60.8) | 0.052 |
| Psychotic symptoms – no. (%) | 20 (47.6) | 25 (59.5) | 0.191 |
| Hospitalizations per yr (mean, SD) | 0.1 (0.2) | 0.1 (0.2) | 0.465 |
| Total number of episodes per yr (mean, SD)\* | 1.0 (0.6) | 0.4 (0.4) | <0.001\* |
| TEMPS cyclothimia (mean, SD)\* | 10.8 (5.6) | 7.5 (3.7) | 0.043\* |
| Suicide attempts during follow up (mean, SD) | 0.4 (0.6) | 0.3 (0.6) | 0.124 |
| **Functional outcomes** |  |  |  |
| GAF total score (mean, SD)  **Mood instability variables** | 79.1 (11.8) | 83.6 (8.9) | 0.04 \* |
| Mood Instability Factor (mean, SD) | 5.2 (2.4) | 1.7 (1.2) | <0.01\* |
| Max. Weeks in Euthymia (mean, SD) | 7.8 (3.5) | 26.1 (11.2) | <0.01\* |

1. Two-sided p values. Mean values are compared with Student’s T-test and proportions with X2 test.

Abbreviations: SD = Standard Deviation, yr= Years, GAF = Global Assessment of Functioning, BD = Bipolar Disorder

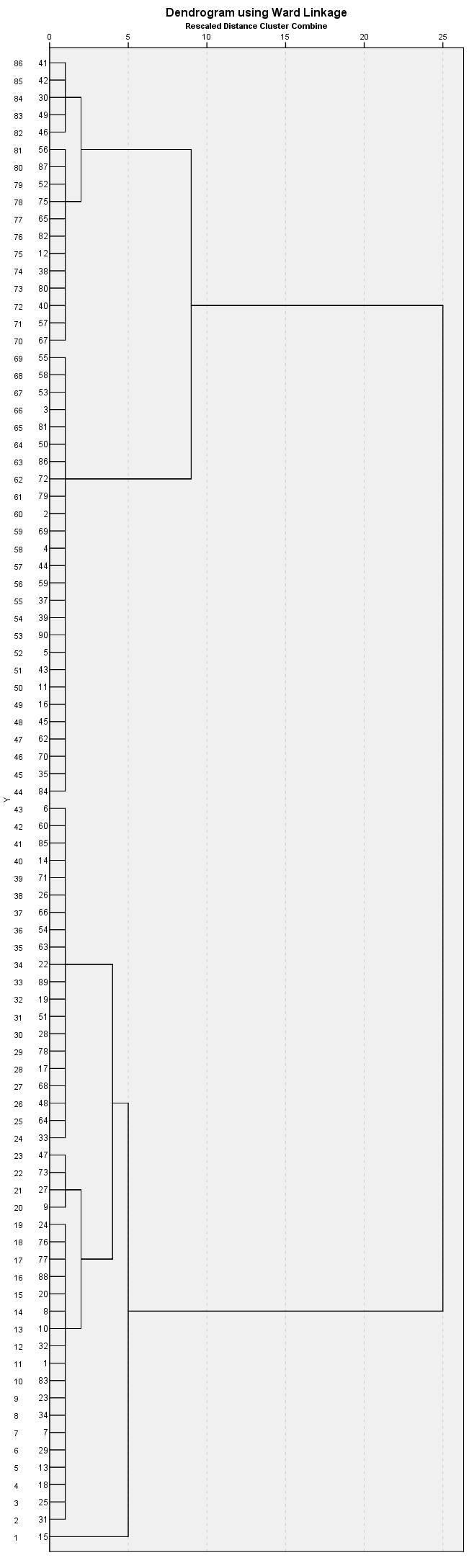
**Table A2.** Mood symptomatology across different clusters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Baseline characteristic** | **Cluster I**  **“High Instability”**  **(N=43)** | | **Cluster II**  **“Low Instability”**  **(N=43)** | **p value1** |
| **Follow-up Mood Variables**  % time depressive symptoms (mean, SD) | 22.7 (16.4) | 7.5 (7.5) | | <0.001 |
| % time hypo/manic symptoms (mean, SD) | 7.2 (7.5) | 2.9 (4.3) | | 0.002 |
| % time mixed symptoms (mean, SD) | 4.4 (5.3) | 1.2 (2.7) | | 0.001 |
| % time euthymia (mean, SD) | 65.8 (14.3) | 88.4 (7.8) | | <0.001 |
| % of follow up with sub-syndromal depression (mean, SD)  % of follow up with sub-syndromal mania  (mean, SD)  % of follow up with sub-syndromal mixed  (mean, SD)  % of follow up with mild depressive symptoms (mean, SD) | 14.4 (13.7)  5.1 (5.4)  3.9 (5.0)  6.3 (5.5) | 4.6 (4.4)  1.8 (2.8)   * 1. (2.6)   1.9 (3.4) | | <0.001  0.001  0.002  <0.001 |
| % of follow up with mild manic symptoms (mean, SD) | 1.4 (1.8) | 0.8 (1.5) | | 0.06 |
| % of follow up with moderate depressive symptoms (mean, SD) | 1.9 (3.3) | 0.9 (2.6) | | 0.11 |
| % of follow up with moderate manic symptoms (mean, SD) | 0.6 (1.4) | 0.3 (1.2) | | 0.42 |
| % of follow up with moderate mixed symptoms (mean, SD) | 0.3 (0.7) | 0.1 (0.3) | | 0.07 |
| % of follow up with severe depressive symptoms (mean, SD) | 0.1 (0.5) | 0.1 (0.6) | | 0.98 |
| % of follow up with severe manic symptoms  (mean, SD) | 0.1 (0.3) | 0.0 (0.7) | | 0.17 |
| % of follow up with severe mixed symptoms  (mean, SD) | 0.2 (1.1) | 0.0 (0.0) | | 0.07 |

1. Two-sided p values. Mean values are compared with Student’s T-test and proportions with X2 test.

Abbreviations: SD = Standard Deviation

**Figure A1.** Dendogram using Hierarchichal Cluster Analysis to determine appropriate cluster number



Rows (or *leaves*) represent individual patients, and branches represent similarities between observations. As we move up, braches begin to merge with each other or with an individual leaf. The earlier the fusion, the more similar those observations are. To identify the optimal number of clusters, we make a vertical cut across the dendogram and observe the resulting clusters. The height of the cut will determine the numbers of clusters. In this case, a two-cluster solution is observed throughout the majority of the axis.

**Figure A2.** Different combinations of mood instability factor (MIF), subsyndromal density symptoms (SD) and episodic density (ED)

