

Supplementary Table 1: Choice of the optimal number of trajectories

Nb group	LogL	p	BIC	Proportion of class (%)				
				1	2	3	4	5
1	-20845.38	4	41721.81	100				
2	-20724.32	11	41534.04	77.33	22.67			
3	-20655.79	15	41428.02	72.48	8.42	19.1		
4	-20638.62	19	41424.72	71.76	1.11	8.51	18.63	
5	-20600.42	23	41479.39	71.8	0.68	1.23	6.21	20.08

LogL = log-vraisemblance; p = number of parameter to estimate, BIC: Bayesian Information Criterion

In red is indicated the optimal number of trajectories according to the lowest BIC and the numbers of individuals in each group.

Supplementary Table 2: Posterior classification

Final classification	Number of subjects (%)	Mean of posterior probabilities in each class		
		1	2	3
1	1704 - 72.5%	89%	3%	8%
2	198 - 8.4%	8%	73%	19%
3	449 - 19.1%	15%	15%	70%

Supplementary Table 3: Baseline values of the FAST and the GAF scores for the three trajectories

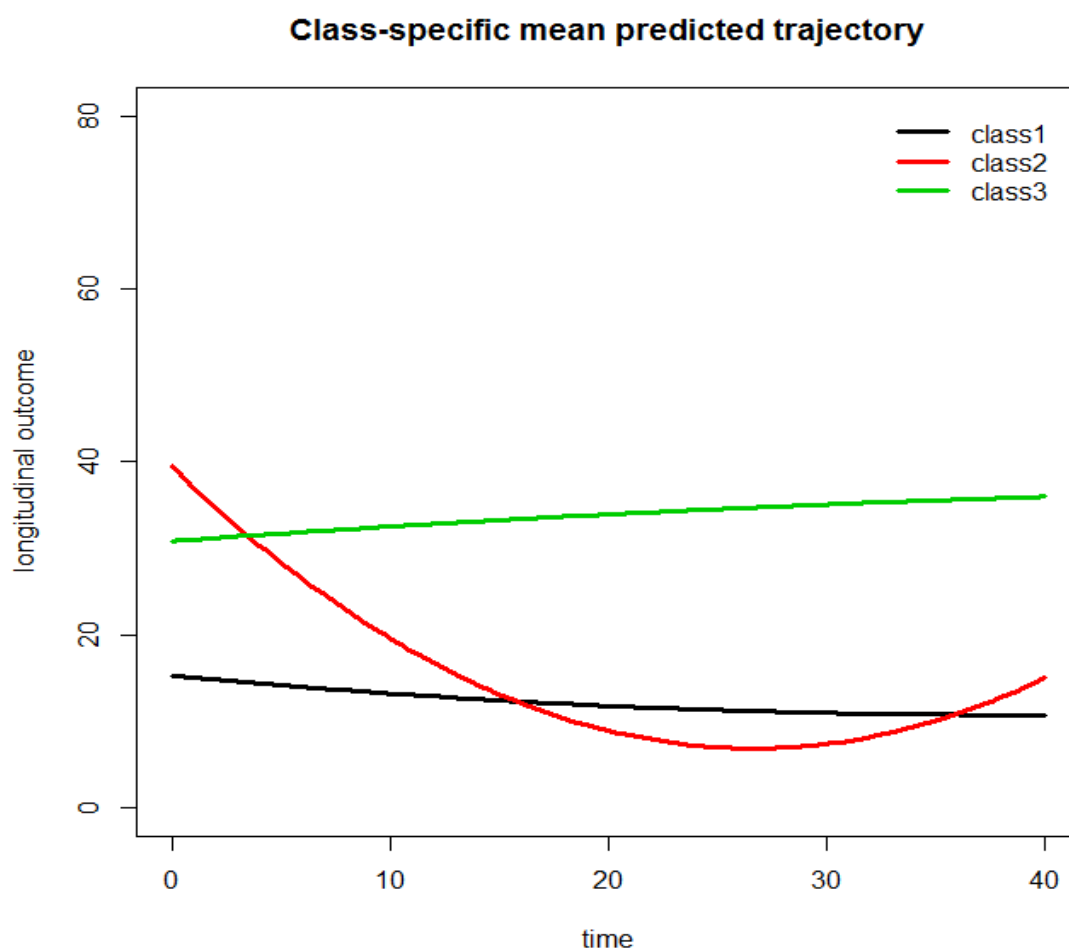
Baseline scores	Class 1 stable mild functional impairment	Class 2 with improving functioning	Class 3 stable severe functional impairment	P values
FAST				

mean (SD)	14.7 (9.6)	34.6 (9.8)	48.7 (8.0)	<0.0001
median (IQR)	14 (7-22)	35.5 (30-41)	47(43.5-53)	
	<i>Mild</i>	<i>Moderate</i>	<i>Severe</i>	
GAF				
mean (SD)	70.0 (12.7)	56.5 (11.6)	51.8 (10.2)	<0.0001
median (IQR)	70 (60-80)	55 (50-61)	51 (45-60)	
	<i>Mild</i>	<i>Moderate</i>	<i>Moderate</i>	

FAST: Functioning Assessment Short Test, GAF: Global Assessment of Functioning
SD: Standard deviation, IQR interquartile

The categorical interpretations for scores are indicated in italic.

Supplementary Figure 1: Trajectories of functioning in patients with bipolar disorders (complete case analysis, n=375)



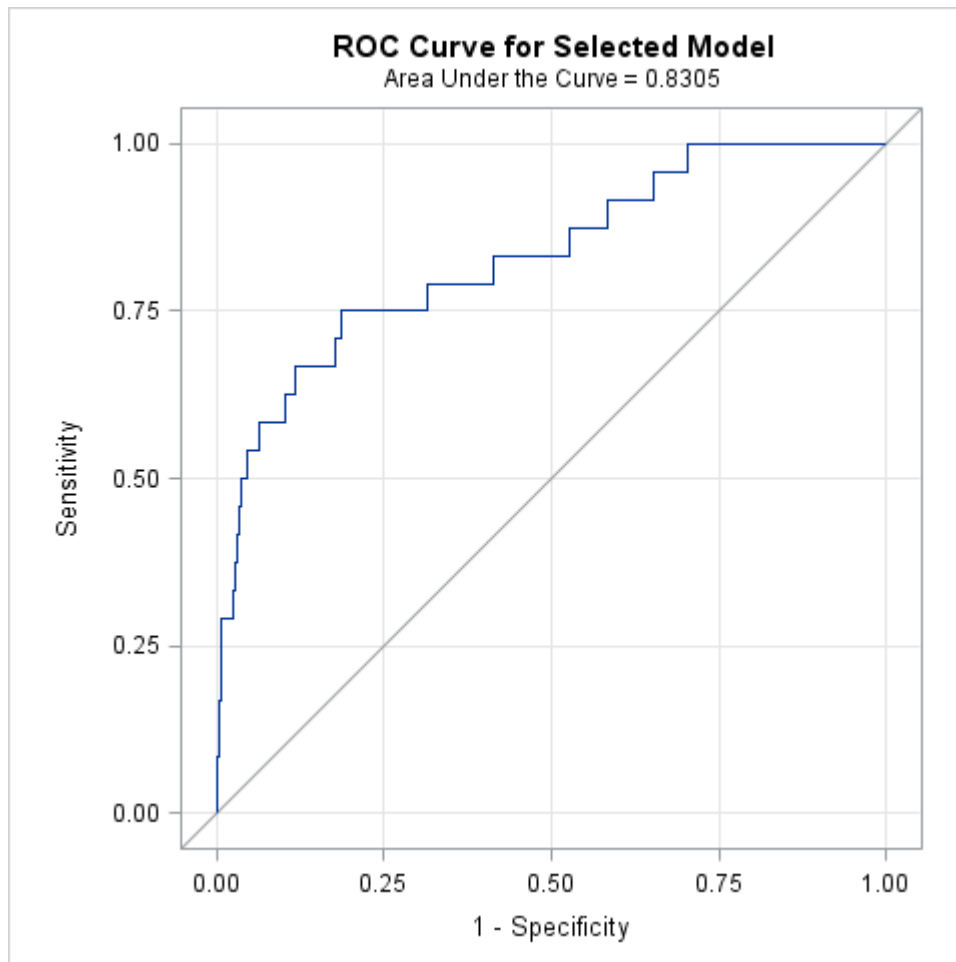
Class 1 « Stable mild functional impairment »: n=272

Class 2 « With improving course »: n=30

Class 3 « Stable severe functional impairment »: n=73

X axis: time in month, Y Axis: FAST total score

Supplementary Figure 2: Receiver Operating Characteristics (ROC) and Area Under the Curve (AUC) diagram for the model including four predictors of the trajectories of stable severe versus stable mild functional impairment (N=1064 patients with MADRS < 8 AND YMRS<8)



MADRS: Montgomery Asberg Depressive Scale, YMRS: Young Mania Rating Scale

Supplementary Table 4: Predictors of sub-domains of functioning

Risk factors	Cognition OR Confidential Intervals	Personnal interrelationship OR Confidential Intervals	Occupational functioning OR Confidential Intervals	Autonomy OR Confidential Intervals
Unemployment	1.80 1.2-2.7	1.60 1.04-2.9	7.04 4.90-10.02	2.30 1.50-3.60
Depressive symptoms	1.10 1.06-1.12	1.10 1.07-1.12	1.07 1.04-1.09	1.15 1.10-1.20
Childhood trauma	1.01 0.99-1.03	1.03 1.02-1.04	1.02 1.00-1.03	1.00 0.98-1.01
Body mass index	1.00 0.96-1.04	1.02 0.98-1.05	1.04 1.00-1.07	1.03 0.99-1.07
Sleep disturbances	1.03 0.97-1.09	1.06 1.00-1.13	1.04 0.99-1.09	1.01 0.95-1.08
Number of psychotropic drugs	1.34 1.16-1.55	1.06 1.02-1.38	1.14 0.99-1.29	1.38 1.20-1.60
Number of hospitalizations	1.01 0.95-1.09	1.03 0.96-1.11	1.10 1.02-1.15	1.00 0.90-1.10

In bold, p value below 0.001(Bonferroni correction), OR= Odds Ratio