

Societal recovery trajectories in people with a psychotic disorder with a long duration of illness: a latent class growth analysis

Stijn Crutzen^{1*}Ψ, Simone R Burger^{2,3}Ψ, Ellen Visser⁴, Helga K. Ising⁵, PHAMOUS investigators** Mark van der Gaag^{2,3}, Stynke Castelein^{1,7}

*Corresponding author: s.crutzen@lentis.nl

Ψ Shared first authors

** Johan Arends⁶, Frederike Jörg⁴, Gerdina Hendrika Maria Pijnenborg^{6,7}, Wim Veling⁸

1 Lentis Psychiatric Institute, Lentis Research, Hereweg 80, 9725 AG, Groningen, The Netherlands

2 Department of Clinical Psychology, VU University and Amsterdam Public Health Research Institute, Amsterdam, the Netherlands

3 Department of Psychosis Research and Innovation, Parnassia Psychiatric Institute, The Hague, the Netherlands

4 University of Groningen, University Medical Center Groningen, University Center Psychiatry, Rob Giel Research Center, Hanzeplein 1 (CC72), 9713 GZ, Groningen, The Netherlands

5 Rivierduinen Institute for Mental Health Care, Sandifortdreef 19, 2333 ZZ Leiden, the Netherlands

6 GGZ Drenthe Mental Health Institution, Department of Psychotic Disorders, Dennenweg 9, 9404 LA, Assen, The Netherlands

7 University of Groningen, Faculty of Behavioural and Social Sciences, Grote Kruisstraat 2/1, 9712 TS, Groningen, The Netherlands

8 University of Groningen, University Medical Center Groningen, University Center for Psychiatry, Psychosis Department, Hanzeplein 1 (CC60), 9713 GZ, Groningen, The Netherlands.

Appendix 1

Table 1. Univariate analysis comparing the high stable subgroup with the high decreasing subgroup for the categorical variables

Potential predictor	High stable	High decreasing	p-value
Sex male, %	54.0%	66.7%	0.006
Ethnicity Caucasian, %	91.4%	93.9%	0.316
Symptomatic remission, %	73.0%	58.9%	0.004
Personal remission, %	69.4%	58.7%	0.020
Alcohol use, %	53.3%	49.4%	0.407
Nicotine use, %	36.3%	50.8%	0.006
Cannabis use, %	7.7%	12.8%	0.062
Somatic disease, %	39.6%	49.3%	0.035
Hospitalisation in the last year, %	12.3%	6.3%	0.039
Physically active >30min 4xw, %	54.3%	42.7%	0.014
Main psychotic disorder diagnosis, %			0.601
Schizophrenia	41.8%	43.6%	
Delusional disorder	2.5%	4.2%	
Schizophreniform disorder	5.0%	6.1%	
Substance abuse psychosis	11.4%	7.3%	
Psychosis NOS	1.9%	3.0%	
Schizoaffective disorder	18.0%	15.2%	
Unknown psychotic disorder	19.4%	20.6%	
Education, %			
Lower education	27.5%	39.6%	0.008
Middle education	31.8%	32.5%	
Higher education	40.7%	27.9%	
Type of antipsychotic, %			0.113
Strong dopamine antagonist	39.2%	37.3%	
Partial dopamine antagonist	17.2%	11.8%	
Weak dopamine antagonist	24.8%	28.6%	
Other	12.9%	19.3%	
No antipsychotic	5.9%	3.1%	

P-values ≤0.1 are included in the first logistic regression model in the backward selection method

Table 2. Univariate analysis comparing the medium stable subgroup with the medium increasing subgroup for the categorical variables

Potential predictor	Medium stable	Medium increasing	p-value
Sex male, %	72.3%	68.6%	0.272
Ethnicity Caucasian, %	84.7%	86.3%	0.521
Symptomatic remission, %	35.6%	49.8%	<0.001*
Personal remission, %	57.0	59.3	0.553
Alcohol use, %	35.0%	45.5%	0.004*
Nicotine use, %	50.7%	47.7%	0.488
Cannabis use, %	11.8%	11.9%	0.995
Somatic disease, %	50.4%	48.4%	0.588
Hospitalisation in the last year, %	16.2%	10.6%	0.028*
Physically active >30min 4xw, %	34.8%	42.8%	0.026*
Main psychotic disorder diagnosis, %			0.204
Schizophrenia	56.5%	47.6%	
Delusional disorder	0.5%	0.9%	
Schizophreniform disorder	4.8%	6.7%	
Substance abuse psychosis	6.2%	7.9%	
Psychosis NOS	2.6%	3.2%	
Schizoaffective disorder	9.3%	13.7%	
Unknown psychotic disorder	20.1%	20.1%	
Education, %			0.001*
Lower education	58.9%	44.4%	
Middle education	20.7%	28.1%	
Higher education	20.4%	27.5%	
Type of antipsychotic, %			0.023*
Strong dopamine antagonist	37.5%	33.4%	
Partial dopamine antagonist	11.1%	15.8%	
Weak dopamine antagonist	31.1%	24.2%	
Other	15.8%	22.4%	
No antipsychotic	4.4%	4.2%	

P-values ≤0. 1 are included in the first logistic regression model in the backward selection method

Table 3. Univariate analysis comparing the high stable subgroup with the high decreasing subgroup and the medium stable subgroup with the medium increasing subgroup for the continues variables

Potential predictor	High stable	High decreasing	P-value
Age (mean), years	42.6	43.7	0.260
Time since onset (median), years	15	17	0.153
Age at onset (mean), years	26.0	25.9	0.891
PANSS positive (median)	1.33	1.67	0.002
PANSS negative (median)	1.33	1.67	0.003
PANSS generic (median)	1.00	1.00	0.113
Single item happiness (mean), 0-10	6.74	6.62	0.447
HONOS behaviour (median)	0.00	0.00	0.002
HONOS limitations (median)	0.50	0.50	0.027
Total antipsychotic Haloperidol equivalent dose (median), mg	5.00	5.00	0.137
Potential predictor	Medium stable	Medium increasing	P-value
Age (mean), years	44.9	43.7	0.298
Time since onset (median), years	19	17	0.003
Age at onset (mean), years	24.5	25.9	0.036
PANSS positive (median)	2.00	1.67	<0.001
PANSS negative (median)	2.33	2.00	<0.001
PANSS generic (median)	1.50	1.00	0.001
Single item happiness (mean), 0-10	6.48	6.53	0.701
HoNOS behaviour (median)	0.33	0.00	0.002
HoNOS limitations (median)	1.00	0.50	<0.001
Total antipsychotic Haloperidol equivalent dose (median), mg	6.67	6.25	0.004

P-values ≤ 0.1 are included in the first logistic regression model in the backward selection method. An independent samples t-test was used for normally distributed predictors (mean reported) and a Mann-Whitney test was used for non-normally distributed predictors (median reported). PANSS = The Positive and Negative Syndrome Scale; HoNOS = The Health of the Nation Outcome