

Tables: Gender- and age-related predictors of relapse after inpatient treatment. A replication and pilot study (H.C. Vollmer, 2026)

Table 1. Differences between follow-up responders and non-responders in sociodemographic and clinical characteristics.

characteristic	follow-up N = 702	no follow-up N = 611	p
age in years, mean (SD)	48 (9.7)	44.7 (10.1)	<.001
male	61.7	65.5	.155
school ≥ secondary level	62.4	57.3	.059
employed	41.2	33.1	.002
unemployed	43.7	54.5	<.001
retired	9.3	9.2	.953
housewife/man	5.1	2.8	.031
married	33.2	18.7	<.001
partnerless	44.9	54.7	<.001
german citizenship	95.7	95.1	.582
F2-F6 comorbidity	66.8	74.0	.005
F1 comorbidity, without F17	28.6	38.0	<.001
F 17.2 comorbidity	65.0	74.0	<.001
depression (F32, F33, F34.1)	27.4	26.0	.588
Personality disorder (F60, F61)	20.1	27.7	<.001
detoxification > 2	38.2	48.7	<.001
inpatient drug rehab > 0	34.9	42.6	.004

Notes. Data in percent, except for age. Comorbidity according to ICD-10.

Table 2. Differences in sociodemographic characteristics of follow-up responders

sex	male			female			p
age group	< 43	43-51	>51	< 43	43-51	>51	
N	113	165	155	69	92	108	
age in years, mean (SD)	35.4 (5.6)	47.0 (2.6)	57.6 (4.7)	35.5 (5.9)	47.4 (2.3)	57.3 (4.9)	
school ≥ secondary level	61.1	64.8	53.5	75.4	68.5	59.3	.028
employed	35.4	45.5	43.2	40.6	41.3	38.0	.617
unemployed	62.8	49.1	34.8	50.7	43.5	24.1	<.001
retired	0	4.2	21.3	0	6.5	17.6	<.001
housewife/man	0	1.2	0.6	4.3	8.7	20.4	<.001
married	11.5	32.1	45.2	23.2	30.4	49.1	<.001
partnerless	55.8	50.3	41.9	36.2	44.6	35.2	.015
detoxification > 2	36.3	42.6	38.8	33.3	40.7	33.6	.645
inpatient drug rehab >0	33.6	40.0	39.4	26.1	33.7	28.7	.182

Notes. Data in percent, except for age. p: significance value, Chi square tests, df=5.

Table 3. Comorbidity according to ICD-10 and duration of therapy of follow-up responders

sex	male			female			p
age group	< 43	43-51	>51	< 43	43-51	>51	
N	113	165	155	69	92	108	
mental comorbidity, without F1, F2-F6	60.2	67.3	59.4	72.5	79.3	69.4	.016
addiction comorbidity, F1x.2 without F17.2	53.1	29.7	13.5	40.6	23.9	19.4	<.001
tobacco dependence (F17.2)	77.0	66.7	58.1	76.8	72.8	45.4	<.001
depression (F32, 33, 34.1)	15.0	27.9	29.7	24.6	33.7	32.4	.028
personality disorder (F60, F61)	25.7	15.8	10.3	44.9	22.8	16.7	<.001
treatment duration in days, mean (SD)	88.4 (27.3)	87.5 (27.3)	81.2 (22.6)	89.8 (32.1)	96.0 (25.9)	85.5 (26.9)	<.001

Notes. Data in percent, except treatment duration. Only ICD-10 diagnoses > 10% based on the total group; p: significance value, Chi square tests (df=5) or Kruskal-Wallis H Test.

Table 4. Follow-up return and abstinence rates.

age group	20-42			43-51			52-76		
	male	female	p	male	female	p	male	female	p
N, QATP	269	133		305	184		259	163	
rate of follow-up	42.0 %	51.9 %	.061	54.1 %	50.0 %	.379	59.8 %	66.3 %	.186
abstinence, 12m	17.5 %	18.8 %	.744	28.5 %	27.2 %	.747	34.4 %	38.7 %	.372
N, QACC	113	69		165	92		155	108	
abstinence, 12m	41.6	36.2	.473	52.7	54.3	.803	57.4	58.3	.883

Notes. QATP: Quota abstinence total patients; QACC: Quota abstinence catamneses consented; 12m: continuous 12-month abstinence; p: significance value, Chi square tests, df=1

Table 5. Age- and gender-specific prognosis criteria for relapse, clinic A

sex	male			female		
age group	20-42	43-51	52-76	20-42	43-51	52-74
N (QACC12m)	113	162	152	66	91	107
not gainfully employed	1.21 (0.5-2.8) .649	3.15 (1.6-6.2) .001	0.54 (0.2-1.2) .131	1.64 (0.6-4.7) .362	1.42 (0.6-3.4) .428	1.93 (0.7-5.2) .189
partnerless	0.8 (0.4-1.8) .593	1.52 (0.8-3.0) .221	2.28 (1.1-4.8) .029	0.59 (0.2-1.8) .344	0.64 (0.3-1.5) .315	0.44 (0.2-1.1) .071
detoxification >2	3.8 (1.6-9.3) .003	0.92 (0.5-1.9) .804	4.04 (1.9-8.5) <.000	1.18 (0.4-3.7) .772	1.20 (0.5-3.0) .693	1.69 (0.7-4.0) .231
F2-F6 comorbidity	0.97 (0.4-2.2) .946	2.33 (1.1-4.8) .023	1.59 (0.8-3.3) .205	2.24 (0.7-7.2) .176	2.39 (0.7-8.0) .158	2.53 (1.0-6.5) .052
Nagelkerke R ²	.127	.160	.172	.079	.083	.119
prognosis, %	67.3	66.7	64.5	65.2	59.3	62.6
backward elimination	detox, 3.97 (1.7-9.5), p=.002	work, 3.30 (1.7-6.4), p<.001, F2-F6 com, 2.4 (1.2-4.9) p=.016	detox, 3.30 (1.7-6.6), p<.001, partnerless, 1.93 (1.0-3.8), p=.061	F2-F6 com, 2.2 (0.7-6.7), p=.163	F2-F6 com, 2.96 (1.0-9.1), p=.058	F2-F6 com, 2.24 (0.9-5.5), p=.077, partnerless, 0.42 (0.2-1.0), p=.048
N (QATP12m)	266	295	254	126	181	162
backward elimination	detox, 3.64 (1.7-7.9), p=.001, work, 1.84 (0.9-3.6), p=.075	work, 2.59 (1.5-4.4), p<.001, F2-F6 com, 1.77 (1.0-3.0), p=.038	detox, 2.49 (1.4-4.4), p=.002, partnerless, 2.45 (1.4-4.3), p=.001	F2-F6 com, 3.48 (1.3-9.0), p=.014	detox, 1.94 (1.0-3.8), p=.056	F2-F6 com, 2.53 (1.2-5.3), p=.013, detox, 2.03 (1.0-4.1), p=.047
Nagelkerke R ²	.115	.094	.139	.085	.059	.113

Notes. binary logistic regression to predict relapse, calculation according a) QACC12m, b) QATP12m; for all characteristics: OR, (CI 95%) and p. In row 10 and 12 after stepwise backward elimination. Abbreviations: work: not gainfully employed, detox: detoxification >2, F2-F6 com(orbidity)

Table 6. QACC12m-Relapse rates of patients with more than two detoxifications compared to <3 detoxifications, clinic A

sex	male			female		
age group	20-42	43-51	52-76	20-42	43-51	52-74
N	113	165	155	69	92	108
relapsed	58.4 %	47.3 %	42.6 %	63.8 %	45.7 %	41.7 %
employed	80 % vs. 40 % N=10, 30 OR: 6.0, p=.028	36.4 % vs. 32.7 % N=22, 52	50 % vs. 33.3 % N=16, 48	75 % vs. 50 % N=8, 18	45.5 % vs. 42.3 % N=11, 26	45.5 % vs. 26.7 % N=11, 30
unemployed	77.4 % vs. 50 % N=31, 40 OR: 3.4, p=.018	61.9 % vs. 62.6 % N=42, 37	62.1 % vs. 20 % N=29, 25 OR: 6.6, p=.002	64.3 % vs. 75 % N=14, 20	63.2 % vs. 42.9 % N=19, 21 OR: 2.3, p=.199	42.9 % vs. 50 % N=7, 18
no F2-F6 comorbidity	85.7 % vs. 45.2 % N=14, 31 OR: 7.3, p=.011	37.5 % vs. 32.4 % N=16, 37	57.1 % vs. 22.9 % N=28, 35 OR: 4.5, p=.005	75.0 % vs. 42.9 % N=4, 14	0 % vs. 27.8 % N=1, 18	40 % vs. 26.1 % N=10, 23
F2-F6 comorbidity	74.1 % vs. 48.8 % N=27, 41 OR: 3.0, p=.038	56.6 % vs. 51.8 % N=53, 56	64.5 % vs. 36.2 % N=31, 58 OR: 3.2, p=.011	66.7 % vs. 70 % N=18, 30	55.6 % vs. 47.2 % N=36, 36	57.7 % vs. 41.7 % N=26, 48 OR: 1.9, p=.187
no F1 comorbidity, without F17	93.3 % vs. 50 % N=15, 38 OR: 14.0, p=.003	47.8 % vs. 39.7 % N=46, 68	60.4 % vs. 27.7 % N=48, 83 OR: 4.0, p<.001	66.7 % vs. 56.5 % N=15, 23	55.6 % vs. 42.9 % N=27, 42	44.4 % vs. 33.9 % N=27, 59 OR: 3.5, p=.195
F1 comorbidity, without F17	69.2 % vs. 44.1 % N=26, 34 OR: 2.9, p=.053	60.9 % vs. 56.0 % N=23, 25	63.6 % vs. 60 % N=11, 10	71.4 % vs. 66.7 % N=7, 21	50 % vs. 33.3 % N=10, 12	77.8 % vs. 50 % N=9, 12 OR: 3.5, p=.195
Partner, yes	80.0 % vs. 50.0 % N=20, 30 OR: 4.0, p=.032	44.8 % vs. 36.5 % N=29, 52	56.7 % vs. 24.1 % N=30, 58 OR: 4.1, p=.002	66.7 % vs. 66.7 % N=12, 30	54.2 % vs. 50.0 % N=24, 26	58.6 % vs. 41.5 % N=29, 41 OR: 2.0, p=.157
no Partner	76.2 % vs. 45.2 % N=21, 42 OR: 3.9, p=.020	57.5 % vs. 53.7 % N=40, 41	65.5 % vs. 42.9 % N=29, 35 OR: 2.5, p=.071	70.0 % vs. 50.0 % N=10, 14	53.8 % vs. 32.1 % N=13, 28 OR: 2.5, p=.185	28.6 % vs. 30.0 % N=7, 30

Notes. Chi squared results with significance value p and OR when p<.200. If p≥.200 then no OR and p is entered. Example: among those under 43 years of age, 80% of the 10 male patients with detoxification >2 relapsed, with detoxification <3 40% of the 30 patients.

Table 7. QATP12m-Relapse rates, effect sizes and significance values in a comparison of detoxification >2 vs. <3 for clinics A and B

sex	male			female		
age, A / B	20-42 / 19-41	43-51 / 42-48	52-76 / 55-78	20-42 / 19-41	43-51 / 42-48	52-74 / 55-78
N, A / B	269 / 472	305 / 436	259 / 321	133 / 266	184 / 322	163 / 235
relapsed, A / B	82.5 % / 73.9 %	71.5 % / 64.2 %	65.6 % / 49.2 %	81.2 % / 74.8 %	72.8 % / 66.5 %	61.3 % / 59.6 %
employed	89.5 % / 50.0 % OR: 5.3, p=.026 OR: 1.5, p=.259	68.2 % / 31.4 % OR: 1.6, p=.233 OR: 1.0, P=.880	72.4 % / 35.0 % OR: 2.1, p=.117 OR: 2.9, p=.057	86.7 % / 70.8 % OR: 2.4, p=.287 OR: 3.2, p=.021	77.8 % / 50.0 % OR: 1.8, p=.287 OR: 2.0, p=.088	68.4 % / 41.2 % OR: 2.1, p=.202 OR: 1.2, p=.779
unemployed	92.1 % / 92.3 % OR: 2.9, p=.017 OR: 5.8, p=.006	80.7 % / 70.3 % OR: 1.1, p=.876 OR: 2.4, p=.090	76.6 % / 65.0 % OR: 2.5, p=.040 OR: 1.9, p=.317	83.9 % / 78.6 % OR: 0.9, p=.914 OR: 1.4, p=.681	84.8 % / 80.0 % OR: 2.4, p=.099 OR: 1.9, p=.290	76.5 % / 88.9 % ! OR: 1.6, p=.488 OR: 17.6, p=.006
no F2-F6 comorbidity	94.4 % / 84.5 % OR: 7.6, p=.004 OR: 2.8, p=.001	73.0 % / 73.2 % OR: 2.0, p=.128 OR: 2.4, p<.001	70.0 % / 62.5 % OR: 2.0, p=.100 OR: 2.4, p=.002	85.7 % / 81.6 % OR: 5.3, p=.132 OR: 1.9, p=.201	85.7 %! / 76.5 % OR: 4.6, p=.154 OR: 2.5, p=.005	50.0 % / 61.1 % OR: 1.4, p=.613 OR: 1.5, p=.212
F2-F6 comorbidity	91.0 % / 87.0 % OR: 2.8, p=.023 OR: 3.4, p=.001	77.0 % / 77.0 % OR: 1.3, p=.487 OR: 1.5, p=.333	83.3 % / 66.7 % OR: 3.5, p=.001 OR: 2.0, p=.166	86.0 % / 85.0 % OR: 1.1, p=.855 OR: 2.6, p=.025	79.2 % / 78.6 % OR: 1.5, p=.290 OR: 2.4, p=.027	78.0 % / 92.6 % OR: 2.3, p=.043 OR: 10.6, p=.001
no F1 comorbidity, without F17	97.5 % / 81.4 % OR: 15.8, p=.001 OR: 2.4, p=.002	73.9 % / 72.2 % OR: 1.6, p=.153 OR: 2.3, p<.001	76.8 % / 62.6 % OR: 2.7, p=.001 OR: 2.4, p<.001	80.0 % / 80.6 % OR: 1.3, p=.642 OR: 2.2, p=.027	78.9 % / 75.0 % OR: 1.6, p=.241 OR: 2.3, p=.002	65.9 % / 64.2 % OR: 1.6, p=.198 OR: 1.4, p=.238
F1 comorbidity, without F17	89.2 % / 92.1 % OR: 2.3, p=.057 OR: 5.0, p=.001	80.0 % / 83.8 % OR: 1.4, p=.493 OR: 1.1, p=.912	83.3 % / 75.0 %! OR: 1.8, p=.452 OR: 1.5, p=.671	92.0 % / 90.3 % OR: 2.8, p=.215 OR: 2.3, p=.219	81.5 % / 86.2 % OR: 3.9, p=.043 OR: 2.5, p=.197	88.9 % / 94.4 % OR: 5.3, p=.054 OR: 31.9, p<.001
Partner, yes	92.3 % / 87.5 % OR: 3.5, p=.030 OR: 4.2, p<.001	72.9 % / 74.1 % OR: 2.0, p=.066 OR: 3.1, p<.001	69.8 % / 50.0 % OR: 2.6, p=.015 OR: 1.6, p=.103	85.2 % / 80.4 % OR: 1.7, p=.416 OR: 2.4, p=.026	78.0 % / 75.7 % OR: 1.2, p=.680 OR: 2.2, p=.021	72.1 % / 69.2 % OR: 2.1, p=.080 OR: 1.8, p=.133
no Partner	91.9 % / 84.6 % OR: 4.2, p=.004 OR: 2.5, p=.002	78.2 % / 74.8 % OR: 1.1, p=.770 OR: 1.5, p=.156	84.1 % / 86.5 % OR: 2.4, p=.047 OR: 5.3, p=.001	87.0 % / 88.1 % OR: 1.9, p=.402 OR: 2.2, p=.146	82.4 % / 79.1 % OR: 3.3, p=.024 OR: 2.8, p=.006	73.7 % / 70.2 % OR: 2.3, p=.167 OR: 2.4, p=.024

Note. detox: detoxifications; OR: Odds ratio with evaluation method QATP12m (all unknown as relapsed); ! : N<20; p: significance level.

Clinic A: first value in each cell, Clinic B second value

Table 8. Effect sizes for the predictors partner situation and mental comorbidity, clinic A and B

sex			male			female		
age group		A / B	20-42 / 19-41	43-51 / 42-48	52-76 / 55-78	20-42 / 19-41	43-51 / 42-48	52-74 / 55-78
detox.>2	employed	Partner, no vs. yes	OR: 0.7, p=.811 OR: 1.1, p=.949	OR: 1.4, p=.632 OR: 1.6, p=.436	OR: 3.3, p=.185 OR: 4.5, p=.110	OR: n.p. OR: 0.8, p=.215	OR: 0.8, p=.822 OR: 1.4, p=.545	OR: 4.3, p=.216 ! OR: 0.8, p=.805
		F2-F6 com, yes vs. no	OR: 1.8, p=.683 ! OR: 0.6, p=.430	OR: 1.1, p=.895 OR: 1.4, p=.630	OR: 0.8, p=.793 OR: 1.7, p=.537	OR: n. p. OR: 0.2, p<.30	OR: n.p. OR: 1.2, p=.790	OR: n. p. OR: 9.1, p<.10
	un-em- ployed	Partner, no vs. yes	OR: 1.0, p=.993 OR: 0.8, p=.702	OR: 1.4, p=.556 OR: 0.8, p=.642	OR: 0.8, p=.706 OR: 3.5, p=.142	OR: 0.8, p=.800 OR: 1.1, p=.883	OR: 1.3, p=.775 OR: 0.8, p=.731	OR: n.p. OR: n.p.
		F2-F6 com, yes vs. no	OR: 0.4, p=.336 OR: 2.0, p=.222	OR: 1.5, p=.474 OR: 1.2, p=.630	OR: 2.1, p=.276 OR: 0.8, p=.881	OR: n.p. OR: 2.4, p=.189	OR: n. p. OR: 0.9, p=. 930	OR: n. p. OR: n. p.
detox.<3	employed	Partner, no vs. yes	OR: 1.3, p=.689 OR: 1.4, p=.370	OR: 2.4, p=.063 OR: 2.0, p=.037	OR: 1.2, p=.689 OR: 1.6, p=.320	OR: 1.3, p=.776 OR: 1.7, p=.279	OR: 0.4, p=.105 OR: 0.5, p=.079	OR: 0.6, p=.449 OR: 1.0, p=.988
		F2-F6 com, yes vs. no	OR: 0.6, p=.435 OR: 0.9, p=.810	OR: 1.3, p=.539 OR: 1.3, p=.532	OR: 0.6, p=.289 OR: 0.5, p=.258	OR: 4.8, p=.053 OR: 0.5, p=.206	OR: 1.7, p=.431 OR: 1.4, p=.373	OR: 1.3, p=.672 OR: 1.0, p=.988
	un-em- ployed	Partner, no vs. yes	OR: 0.3, p=.064 OR: 1.2, p=.635	OR: 2.1, p=.230 OR: 2.2, p=.095	OR: 6.7, p=.004 OR: 1.9, p=.237	OR: 0.7, p=.731 OR: 2.3, p=.115	OR: 0.4, p=.240 OR: 2.0, p=.257	OR: 2.5, p=.276 OR: 0.7, p=.682
		F2-F6 com, yes vs. no	OR: 2.7, p=.048 OR: 0.9, p=.835	OR: 4.4, p=.014 OR: 2.8, p=.078	OR: 2.2, p=.202 OR: 2.5, p=.108	OR: n.p. OR: 1.0, p=.960	OR: 1.0, p=.1,0 OR: 0.7, p=.594	OR: 28.0, p=.001 OR: n.p.

Notes. detox: detoxification; F2-F6 com: ICD-10 F2-F6 comorbidity; OR: Odds ratio with evaluation method QATP12m (all unknown as relapsed); p: significance level; n.p.: Calculation not possible, because a characteristic N<7; ! : N<20; Clinic A: first line in each cell, Clinic B second line.

Table 9. Comparison of relapse rates and characteristics of unemployed and employed patients, clinic A and B

Sex	male			female		
age group, A / B	20-42 / 19-41	43-51 / 42-48	52-76 / 55-78	20-42 / 19-41	43-51 / 42-48	52-76 / 55-78
A: unemployed vs. employed	85.9 % vs. 70.1 % 191 vs. 67 OR: 2.6, p=.004	80.4 % vs. 61.5 % 158 vs. 130 OR: 2.6, p<.001	66.7 % vs. 60.0 % 93 vs. 105 OR: 1.3, p=.332	83.3 % vs. 78.8 % 66 vs. 52 OR: 1.3, p=.534	78.2 % vs. 69.9 % 87 vs. 73 OR: 1.5, p=.231	68.9 % vs. 56.3 % 45 vs. 64 OR: 1.7, p=.182
B: unemployed vs. employed	81.3 % vs. 63.6 % 257 vs. 184 OR: 2.5, p<.001	73.7 % vs. 52.2 % 213 vs. 209 OR: 2.6, p<.001	63.6 % vs. 40.0 % 99 vs. 125 OR: 2.6, <.001	78.1 % vs. 71.3 % 137 vs. 101 OR: 1.4, p=.229	76.5 % vs. 59.5 % 115 vs. 163 OR: 2.2, p=.003	61.9 % vs. 55.3 % 42 vs. 76 OR: 1.3, p=.485
comparison of selected characteristics for unemployed vs. employed patients						
detoxification >2, A / B	OR: 2.2, p=.010 OR: 3.2, p<.001	OR: 2.2, p=.001 OR: 3.7, p<.001	OR: 2.5, p=.002 OR: 2.8, p=.001	OR: 2.1, p=.067 OR: 2.2, p=.006	OR: 1.9, p=.053 OR: 2.1, p=.004	OR: 1.5, p=.332 OR: 1.0, p=.953
F2-F6 comorbidity, A / B	OR: 1.3, p=.388 OR: 1.6, p=.024	OR: 1.2, p=.490 OR: 1.7, p=.021	OR: 1.2, p=.540 OR: 1.6, p=.147	OR: 2.7, p=.040 OR: 2.6, p<.001	OR: 2.5, p=.020 OR: 1.3, p=.246	OR: 0.8, p=.521 OR: 0.6, p=.300
F1 comorbidity without F17, A / B	OR: 3.4, p<.001 OR: 4.4, p<.001	OR: 2.5, p=.001 OR: 3.7, p<.001	OR: 1.0, p=.951 OR: 4.2, p=.010	OR: 5.6, p<.001 OR: 2.6, p=.002	OR: 1.9, p=.087 OR: 1.9, p=.058	OR: 2.8, p=.033 OR: 1.5, p=.443
no partner, A / B	OR: 1.9, p=.020 OR: 1.6, p=.026	OR: 2.6, p<.001 OR: 1.9, p=.001	OR: 3.9, p<.001 OR: 1.9, p=.028	OR: 1.0; p=.975 OR: 1.4; p=.234	OR: 1.7, p=.114 OR: 2.0, p=.005	OR: 1.0, p=.963 OR: 0.9, p=.827

Notes. Row 3, 4: Relapse rates, sample sizes, odds ratio (OR) and significance value (p) comparing unemployed vs. employed patients, according to the calculation method QATP12m. Row 6-9: Odds ratio and significance value comparing selected characteristics for unemployed vs. employed patients.