

Adolescent psychosis risk symptoms predicting persistent psychiatric service use:

A 7-year follow-up study

Supplementary Table 1. Standardized factor thresholds and loadings of four- and one-dimensional Prodromal Questionnaire confirmatory factor models

Item	Loadings by model		Thresholds
	Four-dimensional	Single dimensional	
	Estimate (S.E.)	Estimate (S.E.)	Estimate (S.E.)
Positive symptoms factor (39 items)			
50 Suddenly distracted	0.87 (0.02)	0.83 (0.02)	0.09 (0.05)
68 Sensing hidden threats	0.78 (0.03)	0.75 (0.03)	0.53 (0.05)
84 See things	0.78 (0.03)	0.75 (0.03)	-0.02 (0.05)
36 Heard own thoughts	0.78 (0.03)	0.74 (0.03)	-0.11 (0.05)
76 People drop hints	0.77 (0.03)	0.73 (0.03)	0.13 (0.05)
38 People are watching	0.76 (0.03)	0.72 (0.03)	-0.06 (0.05)
27 Not in control of thoughts	0.75 (0.03)	0.72 (0.03)	0.40 (0.05)
57 Reality confusion	0.74 (0.03)	0.71 (0.03)	0.09 (0.05)
7 Familiar surroundings strange	0.72 (0.03)	0.69 (0.03)	0.07 (0.05)
65 Thoughts almost audible	0.72 (0.03)	0.68 (0.03)	0.66 (0.05)
19 Illusions of people	0.67 (0.03)	0.64 (0.03)	0.63 (0.05)
18 Unusual sounds	0.67 (0.03)	0.64 (0.03)	0.88 (0.05)
13 Hearing things	0.67 (0.03)	0.63 (0.03)	0.95 (0.06)
56 Nonexistence	0.65 (0.03)	0.61 (0.03)	0.06 (0.05)
25 Suspiciousness	0.63 (0.05)	0.60 (0.05)	1.45 (0.07)
77 Loyalty concerns	0.63 (0.03)	0.60 (0.03)	0.13 (0.05)
74 Some force interferes	0.63 (0.03)	0.59 (0.03)	0.68 (0.05)
60 Unusual bodily sensations	0.62 (0.04)	0.59 (0.04)	1.08 (0.06)
2 Altered passage of time	0.61 (0.04)	0.58 (0.04)	0.97 (0.06)
61 Bizarre beliefs	0.60 (0.04)	0.57 (0.04)	0.92 (0.05)
79 See flashes	0.59 (0.04)	0.56 (0.04)	0.57 (0.05)
32 Thoughts broadcast	0.59 (0.04)	0.56 (0.04)	1.06 (0.06)
55 Something wrong with mind	0.58 (0.04)	0.55 (0.04)	0.80 (0.05)
67 Arranged meanings in things	0.57 (0.04)	0.54 (0.04)	-0.44 (0.05)
5 Bugs on skin	0.56 (0.04)	0.53 (0.04)	0.55 (0.05)
64 Body changed	0.55 (0.04)	0.54 (0.04)	0.69 (0.05)
12 Others read thoughts	0.55 (0.04)	0.53 (0.04)	0.79 (0.05)
52 Invisible force around	0.51 (0.04)	0.49 (0.04)	0.86 (0.05)
75 Supernatural experiences	0.51 (0.05)	0.48 (0.05)	1.39 (0.07)
4 Faces change	0.50 (0.05)	0.47 (0.05)	1.33 (0.07)
34 Sensitive to noise	0.49 (0.04)	0.46 (0.04)	0.48 (0.05)
20 Vision changes	0.49 (0.06)	0.47 (0.06)	1.36 (0.07)
8 Déjà vu	0.48 (0.05)	0.46 (0.05)	0.87 (0.05)
26 Strong sense of smell	0.47 (0.05)	0.44 (0.05)	1.03 (0.06)
24 Belief in telepathy	0.46 (0.05)	0.44 (0.05)	1.07 (0.06)
46 Special meanings on TV	0.46 (0.04)	0.43 (0.04)	0.75 (0.05)
35 Superstitious	0.40 (0.05)	0.38 (0.05)	0.99 (0.06)
9 Smell or taste	0.40 (0.05)	0.37 (0.05)	0.96 (0.06)
30 Special gifts	0.23 (0.06)	0.22 (0.06)	1.11 (0.06)

Negative symptoms factor (19 items)			
16 Sense of self	0.81 (0.03)	0.76 (0.02)	0.27 (0.05)
89 Uninterested	0.79 (0.03)	0.74 (0.03)	0.30 (0.05)
42 Emotionally distant	0.77 (0.03)	0.72 (0.03)	0.16 (0.05)
85 Fatigue	0.72 (0.04)	0.68 (0.03)	-0.36 (0.05)
82 Dulled feelings	0.71 (0.03)	0.66 (0.03)	0.22 (0.05)
87 Social anxiety	0.70 (0.04)	0.65 (0.03)	0.94 (0.06)
14 Express feelings	0.67 (0.03)	0.63 (0.03)	0.50 (0.05)
80 Anxious meeting strangers	0.67 (0.03)	0.63 (0.03)	0.41 (0.05)
43 Social avoidance	0.67 (0.03)	0.63 (0.03)	0.53 (0.05)
81 Outside body experiences	0.66 (0.03)	0.62 (0.03)	0.18 (0.05)
39 Nervous in conversation	0.66 (0.03)	0.62 (0.03)	0.51 (0.05)
58 Aloof and distant	0.64 (0.04)	0.60 (0.03)	0.36 (0.05)
71 Spectator in life	0.61 (0.04)	0.57 (0.04)	0.75 (0.05)
48 Unable to enjoy	0.57 (0.04)	0.53 (0.04)	0.14 (0.05)
66 Social clumsiness	0.57 (0.04)	0.53 (0.04)	0.45 (0.05)
33 Nothing to say	0.57 (0.04)	0.53 (0.04)	0.72 (0.05)
78 Not interested in new acquaintances	0.48 (0.04)	0.44 (0.04)	0.66 (0.05)
21 Quiet socially	0.44 (0.04)	0.40 (0.04)	0.17 (0.05)
59 Hiding feelings	0.24 (0.05)	0.22 (0.05)	-0.05 (0.05)
Disorganized symptoms factor (19 items)			
45 Odd person	0.82 (0.02)	0.79 (0.02)	0.23 (0.05)
92 Spacey	0.77 (0.03)	0.74 (0.03)	-0.34 (0.05)
62 Strange ideas	0.76 (0.03)	0.73 (0.03)	0.49 (0.05)
3 Difficulty organizing thoughts	0.74 (0.03)	0.72 (0.03)	0.13 (0.05)
90 Speech hard to understand	0.70 (0.03)	0.68 (0.03)	0.07 (0.05)
49 Thinking muddled	0.67 (0.03)	0.65 (0.03)	0.05 (0.05)
1 Distracted by noise	0.66 (0.03)	0.63 (0.03)	0.27 (0.05)
91 Memory troubles	0.65 (0.04)	0.63 (0.04)	0.86 (0.05)
22 Odd appearance	0.65 (0.03)	0.63 (0.03)	0.52 (0.05)
31 Strange person	0.65 (0.03)	0.63 (0.03)	0.21 (0.05)
37 Many thoughts compete	0.64 (0.03)	0.62 (0.03)	0.27 (0.05)
51 Talking to self	0.63 (0.03)	0.61 (0.03)	0.10 (0.05)
23 Rambling speech	0.58 (0.04)	0.56 (0.04)	0.28 (0.05)
10 Trouble concentrating	0.52 (0.04)	0.50 (0.04)	0.62 (0.05)
15 Collect unvalued things	0.52 (0.04)	0.50 (0.04)	0.37 (0.05)
40 Mannerisms	0.50 (0.04)	0.48 (0.04)	0.57 (0.05)
69 Unusual word use	0.49 (0.04)	0.47 (0.04)	0.19 (0.05)
17 Hygiene	0.40 (0.05)	0.38 (0.05)	1.02 (0.06)
54 Eccentric habits	-0.03 (0.07)	-0.03 (0.07)	1.22 (0.06)
General symptoms factor (15 items)			
88 Hard to relax	0.89 (0.03)	0.82 (0.03)	-0.46 (0.05)
28 Unhappy	0.87 (0.02)	0.80 (0.02)	-0.21 (0.05)
86 Everyday things stressful	0.82 (0.03)	0.76 (0.03)	-0.28 (0.05)
63 Feeling worthless	0.78 (0.03)	0.72 (0.03)	0.33 (0.05)
44 Very guilty	0.77 (0.03)	0.70 (0.03)	-0.23 (0.05)
72 Less able to do tasks	0.76 (0.03)	0.69 (0.03)	0.47 (0.05)
70 Often angry	0.74 (0.03)	0.68 (0.03)	0.29 (0.05)
29 Brooding	0.65 (0.03)	0.60 (0.03)	0.03 (0.05)
41 Less interested in school	0.65 (0.04)	0.60 (0.04)	-0.27 (0.05)
83 Cry often	0.65 (0.04)	0.60 (0.04)	0.72 (0.05)
11 Trouble at school	0.58 (0.04)	0.53 (0.04)	-0.32 (0.05)
73 Not sleeping well	0.56 (0.04)	0.51 (0.04)	0.27 (0.05)
6 Don't get along	0.55 (0.04)	0.51 (0.04)	-0.17 (0.05)
53 Failing school	0.55 (0.04)	0.50 (0.04)	0.71 (0.05)
47 Unstable mood	0.49 (0.06)	0.46 (0.05)	1.22 (0.06)

S.E, standard error

Supplementary Table 2. Factor correlations

	F1	F2	F3	F4
F1 Positive	1			
F2 Negative	0.80	1		
F3 Disorganized	0.90	0.90	1	
F4 General	0.79	0.88	0.83	1

Supplementary Table 3. Background and clinical variables predicting psychiatric service use trajectories with brief service use as the reference category; separate models for the each background variable.

Predictor	Intermittent	Persistent
	OR (95% CI), p-value	
Baseline inpatient status	1.4 (0.6, 3.7), p=.449	1.7 (0.7, 4.4), p=.261
Age	0.9 (0.8, 1.1), p=.430	1.1 (0.9, 1.3), p=.620
Gender	1.4 (0.9, 2.0), p=.095	1.4 (1.0, 2.1), p=.083
Psychotic disorder during follow-up	6.5 (1.8, 23.0), p=.004	39.1 (12.0, 127.4), p<.001
Standardized PQ symptom factors		
Single factor	1.5 (1.2, 1.8), p<.001	2.0 (1.6, 2.4), p<.001
Positive symptoms	1.4 (1.1, 1.7), p=.001	1.9 (1.5, 2.3), p<.001
Negative symptoms	1.6 (1.3, 1.9), p<.001	2.1 (1.7, 2.6), p<.001
Disorganization symptoms	1.5 (1.2, 1.8), p<.001	2.1 (1.7, 2.6), p<.001
General symptoms	1.6 (1.3, 1.9), p<.001	2.0 (1.6, 2.5), p<.001
Baseline diagnosis category		
Non-psychotic mood disorders	1.4 (1.0, 2.1), p=.077	1.7 (1.2, 2.6), p=.006
Anxiety disorders	0.9 (0.6, 1.4), p=.728	1.5 (1.0, 2.3), p=.051
Eating disorders	1.1 (0.6, 2.3), p=.732	1.7 (0.8, 3.2), p=.141
Substance use disorders	0.8 (0.3, 2.4), p=.667	0.6 (0.1, 2.1), p=.379
Intentional self-harm	1.1 (0.2, 4.8), p=.934	N/A
Disorders usually first diagnosed in infancy, childhood, or adolescence	1.0 (0.6, 1.7), p=.933	1.2 (0.7, 2.0), p=.515
Other psychiatric disorders	2.4 (0.6, 10.1), p=.234	1.1 (0.2, 6.8), p=.900
Multimorbidity ^a	2.5 (1.3, 5.0), p=.009	2.3 (1.1, 4.7), p=.025

OR, Odds Ratio

95 % CI, 95% Confidence Interval

^a Baseline diagnosis from more than one diagnosis category

Supplementary Table 4. Predicting the service use trajectories with PQ factors with brief service use as the reference category, when participants with follow-up psychosis were excluded from the sample, n=648. Separate regression models for each PQ factor. Baseline mood disorder and multimorbidity have been controlled for in every model.

Standardized PQ symptom factor	Predicted trajectory, OR (95% CI)	
	Intermittent	Persistent
Single factor (all 94 items)	1.5 (1.2, 1.8), p<.001	2.0 (1.6, 2.5), p<.001
Positive symptoms	1.4 (1.1, 1.7), p=.003	1.9 (1.5, 2.4), p<.001
Negative symptoms	1.6 (1.3, 1.9), p<.001	2.1 (1.7, 2.8), p<.001
Disorganization symptoms	1.5 (1.2, 1.8), p<.001	2.1 (1.7, 2.7), p<.001
General symptoms	1.5 (1.2, 1.9), p<.001	2.0 (1.6, 2.6), p<.001

PQ, Prodromal Questionnaire

OR=Odds Ratio per unit change; 95 % CI=95% Confidence Interval