

Supplementary Online Content

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eFigure 1. Predictions of 3 nosologic models regarding relationships between nonaffective psychosis ratio and outcome

eFigure 2. Distributions of predictors

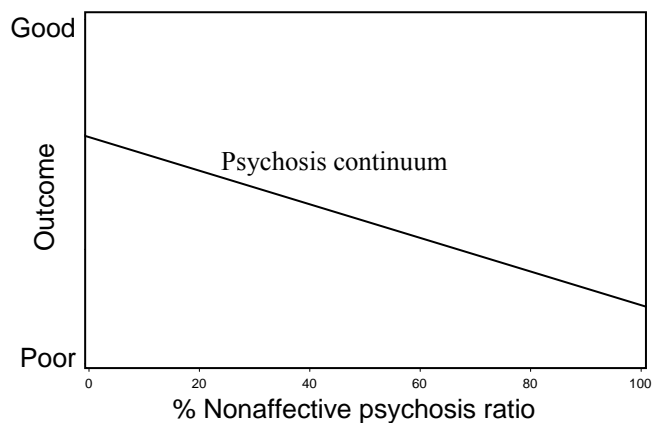
eMethods. Additional methodologic considerations

eTable. Comparison of nonlinear regression (LOESS) to linear regression

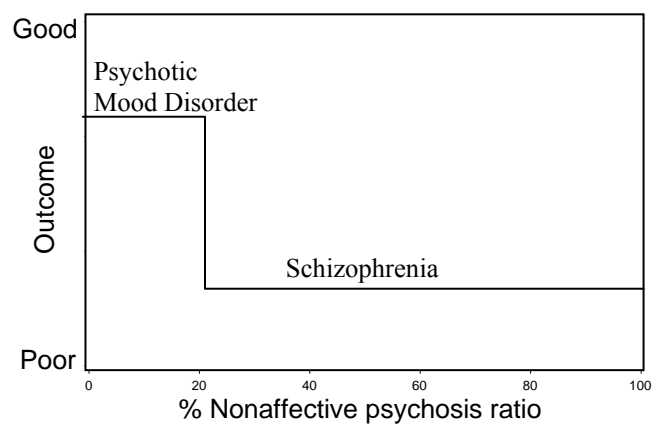
This supplementary material has been provided by the authors to give readers additional information about their work.

eFigure 1. Predictions of 3 nosologic models regarding relationships between nonaffective psychosis ratio and outcome

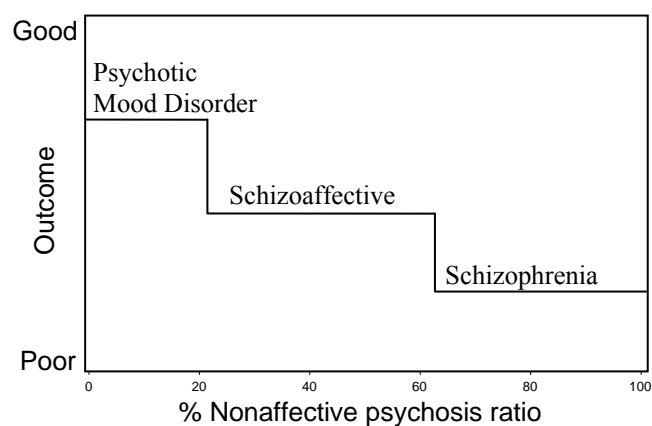
Continuum model



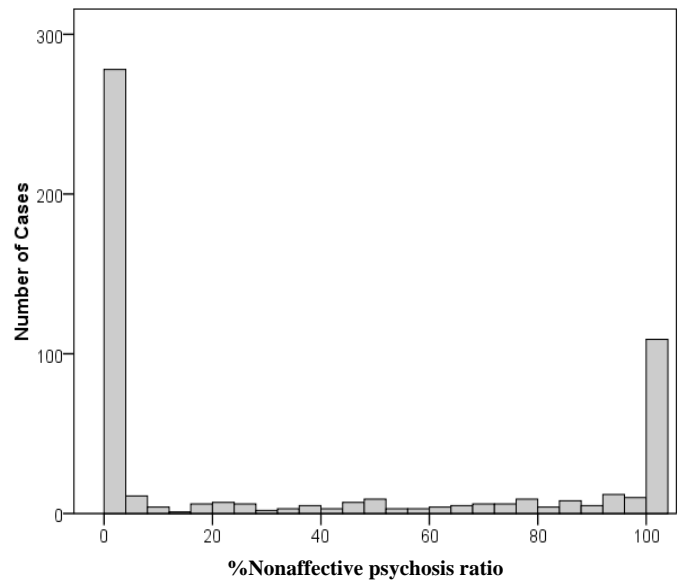
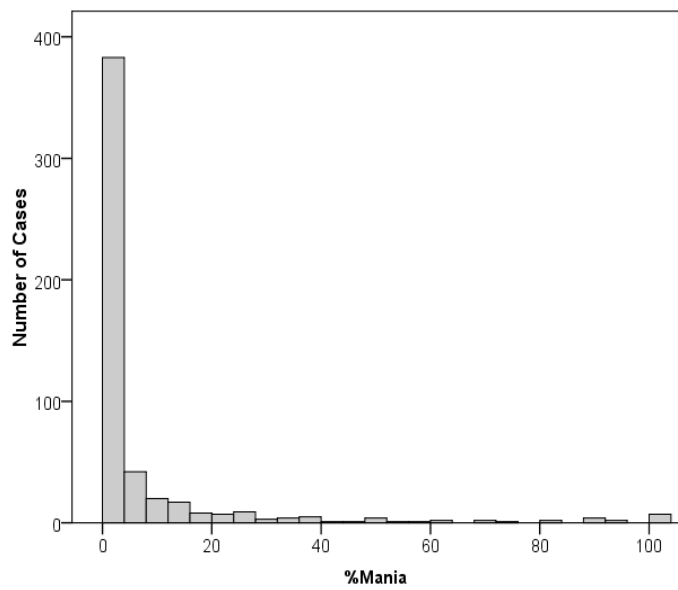
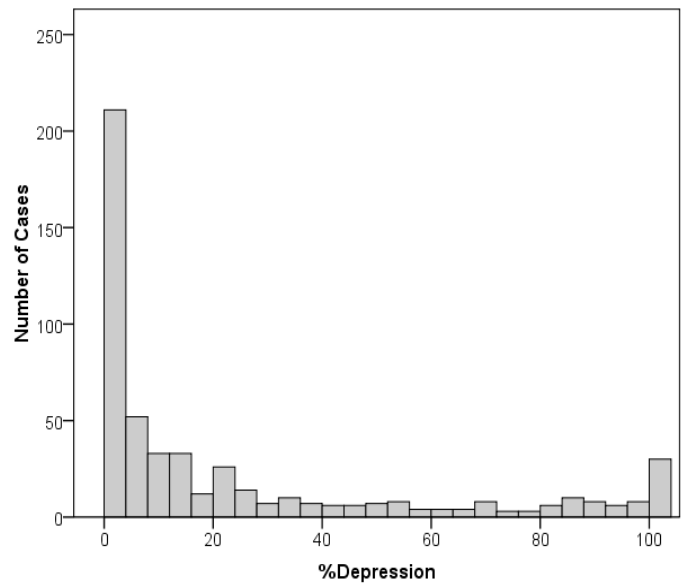
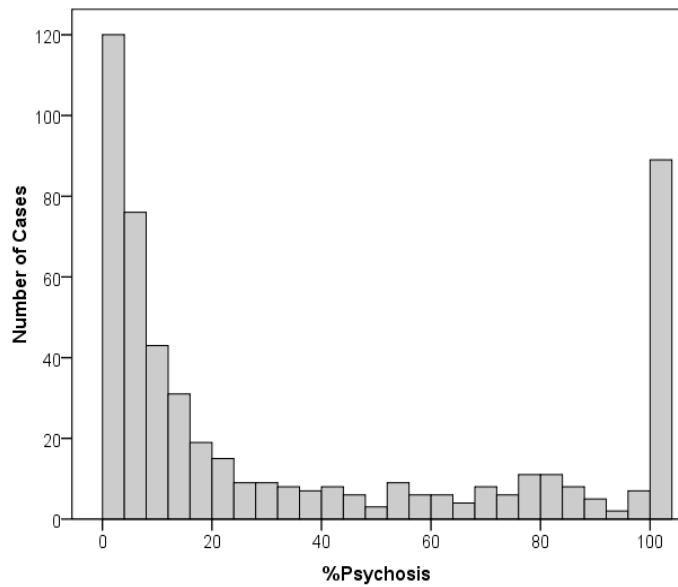
Kraepelinian model



DSM-IV model



eFigure 2. Distributions of predictors



eMethods. Additional Methodological Considerations.

Zero-order correlations

We computed zero-order correlations between the four symptom course variables and the four outcomes. Psychosis duration was strongly associated with all outcomes ($r = -0.50$ to -0.55), nonaffective psychosis correlations were moderate (-0.29 to -0.35), depression correlations were small (-0.11 to -0.13), and none of mania correlations were significant (-0.02 to 0.02). Correlations among the four course variables were moderate, ranging from -0.48 to 0.37 .

Definition of spline models

Spline curves are composed of segments. The length of segments and their shape can vary (we considered flat, linear, quadratic, and cubic). Transition between segments can be either smooth or with a sharp boundary. We selected transition type, number, and shape of segments. The procedure determined starting points of segments, their slopes, and end points, and assessed model fit.

The Kraepelinian model was specified as two flat segments (no association between nonaffective psychosis and outcome within groups) with a vertical boundary between them (difference in outcome between groups). The DSM-IV model was specified as three flat segments with two vertical boundaries. We also tested whether alternative models can account for the data better, including combinations of linear, quadratic, and cubic segments with smooth transitions. Model with linear segments tested whether nonaffective psychosis is associated with outcome within groups to a different degree but without qualitative boundaries between groups. Models with quadratic and cubic segments allowed us to examine whether the initial drop in LOESS reflects a sharp discontinuity or a more gradual non-linear transition.

Similar curves were fit for mania. Three groups were evident in mania LOESS graphs (no mania, episodic manic, and chronic mania), but the decline between 20% and 40% manic may be indicative of a fourth group (Figure 1). To evaluate this possibility, we considered two additional models for mania that specified four segments: flat model and linear model.

eTable. Comparison of nonlinear regression (LOESS) to linear regression

Predictor/Outcome	GAF		GAF-F		GAS		SADS	
	Δ AICC1	P Value	Δ AICC1	P Value	Δ AICC1	P Value	Δ AICC1	P Value
%Psychosis	3.15	.037	1.37	.092	1.07	0.107	-1.25	.357
%Mania	42.29	<.01	51.57	<.01	40.68	<.01	30.68	<.01
%Depression	-0.47	.209	5.02	.016	5.01	.016	4.83	.018
%Nonaffective psychosis ratio	6.69	.005	8.91	.002	7.46	.004	11.87	<.01

Note: AICC1 = Akaike Information Criterion Corrected 1; GAF = Global Assessment of Functioning (overall); GAF-F = Global Assessment of Functional Performance; GAS = Global Assessment of Symptoms; SADS = psychosocial functioning.