Empathic accuracy in psychiatric care –
A diary study on perceiver and target predictors on momentary affect

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Background

In psychiatric inpatient care the nursing staff's ability to accurately judge the patients' momentary affect is of high clinical relevance, e.g. with regard to the early detection of mood swings. Until now, studies addressing this issue are scarce. We studied empathic accuracy and related moderators in a psychiatric inpatient facility using a diary approach.

Research questions

I. To what extent ...

(a) is the nursing staff able to assess the patients' momentary affect correctly? **(accuracy)**

(b) does the own affect of the nursing staff influence external assessments? **(assumed similarity/projection)**

(c) do self-reports of patients and self-reports of the nursing staff correspond? **(real similarity)**
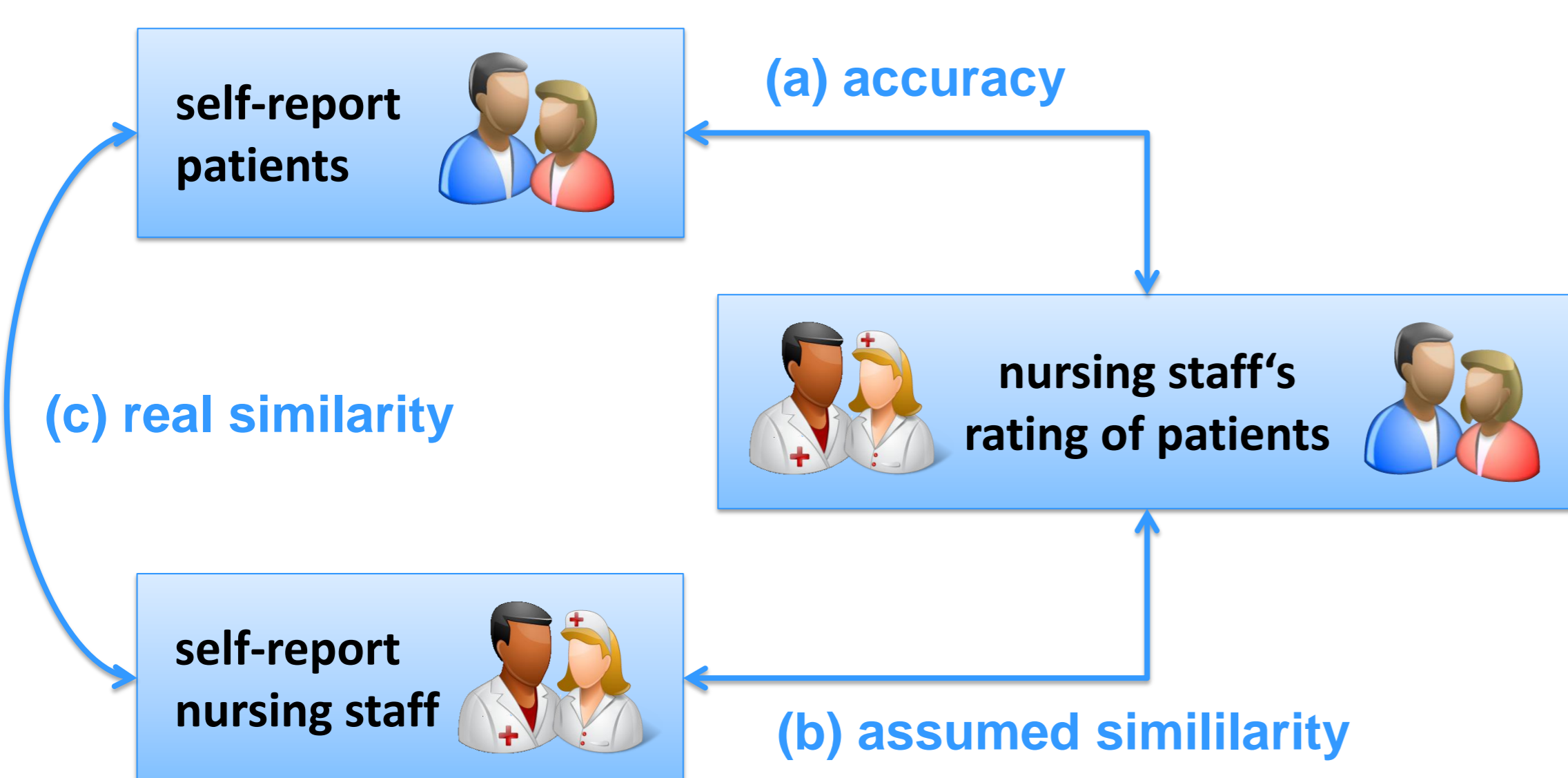
II. Which variables of following domains affect the accuracy of ratings?

① patient characteristics	② nursing staff characteristics
• **sex** • **age** • **multimorbidity** ≤ 2 psychiatric diagnoses vs. > 2 psychiatric diagnoses • **medication** antidepressant monotherapy vs. polymediaction • **depression** Common Depression Scala (Hautzinger & Bailer, 1993) • **anxiety** State-Trait Anxiety Inventory (Laux et al., 1981) • **Alexithymia** Toronto Alexithymia Scale 20 (Kupfer et al., 2001) • **neuroticism** Freiburg Personality Inventory (Fahrenberg et al., 2010, subscale emotionality) • **variation of affect** ratio of items standard deviation and items mean	• **sex** • **age** • **working experience** years in profession • **empathy** ▪ Interpersonal Reactivity Index (Davis, 1983; german version of Enzmann, 1996) ▪ E-Scale (Leibetseder et al., 2001) • **alexithymia** Toronto Alexithymia Scale 20 (Kupfer et al., 2001) **③ patients-nursing-staff- relation characteristics** • **familarity** duration of hospitalization in days • **contact intensity** per rating interval ▪ no contact ▪ 1-15 minutes ▪ > 15 minutes

Method

A nine month field study at the psychiatric hospital Bethanien of the Johanna-Odebrecht-Stiftung in Greifswald was conducted. The inpatient sample consisted of 30 patients (15 female, 15 male) with anxiety, affective and somatoform disorders (age in years: $M = 49.93$, $SD = 9.40$; duration of inpatient treatment in days: $M = 18.92$, $SD = 8.72$). Part of the external assessment team were ten members of the nursing staff (8 female, 2 male) attending the respective ward (age in years: $M = 40.38$, $SD = 11.72$; years of job experience: $M = 10.13$; $SD = 6.41$). The patients reported their momentary affect six times a day for five consecutive days with a paper pencil diary following a signal-contingent sampling scheme. Beyond that patients rate their affect in retrospect twice a day. Simultaneously, the nursing staff reported their own affect as well as the patients' affect whenever changing shifts.

Results

(Tab. 1) Based on ten items measuring affect three subscales (valence, energetic arousal, tense arousal) were formed. Correlation coefficients show substantially relations of patients' self-report and nursing staff's external ratings, indicating medium-sized accuracy for all three scales. With the exception of the subscale valence, coefficients for assumed and real similarity were smaller than those for accuracy. Particularly, the subscale energetic arousal displays high accuracy and less biasing similarity compared to other subscales.

Table 1
Correlation coefficients of measures of similarity for the three mood dimensions

	Accuracy	Assumed Similarity	Real Similarity
Valence	.17*	.21**	.18**
Energetic Arousal	.34**	.13	.01
Tense Arousal	.18**	.07	.15*

Notes. * p < .05, ** p < .01

(Tab. 2) As measure of accuracy the absolute value of difference between patients' self-report and nursing staff's rating of patients was computed. Across all subscales accuracy was notably associated with various key indicators of target persons. Additionally items concerning the activation level of patients revealed relations between rating discrepancy and the age of perceiver as well as familiarity of perceiver and target.

Table 2
Random-intercept mixed regression for prediction of rating accuracy

Variable	Valence Estimate	SE	Energetic Arousal Estimate	SE	Tense Arousal Estimate	SE
Constant	1.462*	.676	9.481***	1.810	1.180	.902
nursing staff						
sex	-.181	.119	.027	.317	-.265	.158
age	.003	.008	-.052*	.021	-.006	.010
working experience	-.003	.021	.103	.056	.010	.028
empathy (IRI)	-.006	.007	-.032	.019	-.012	.010
empathy (E-Scale)	-.004	.004	-.014	.011	-.006	.005
alexithymia	.013	.014	.051	.037	.022	.018
patients						
sex	.115	.078	-.113	.206	.176	.104
age	-.021***	.004	-.042***	.011	-.007	.006
multimorbidity	.035	.091	.600*	.241	-.191	.121
medication	.017	.076	-1.049***	.207	.253*	.099
depression	.002	.004	-.021*	.011	.005	.005
anxiety	-.014***	.003	.026**	.008	-.015***	.004
alexithymia	.000	.003	.045***	.007	-.003	.004
neuroticism	.034*	.015	.087*	.039	.003	.019
variation of affect	.781***	.216	-.206	.283	.910***	.168
patients-nursing-staff-relation						
familarity	-.006	.005	-.034**	.012	-.002	.006
contact intensity (0 min)	-.046	.208	-.296	.523	.278	.264
contact intensity (≤ 15 min)	.130	.109	.208	.292	-.023	.146
contact intensity (> 15 min)	-.003	.074	-.248	.196	.058	.099

Notes. * p < .05, ** p < .01, *** p < .001

Conclusions

The findings support the multidimensional view of empathy by identifying particularly key indicators of targets and rarely characteristics of perceiver and target perceiver-relationship as significant moderators of empathic accuracy. Relevance of empathic accuracy for clinical practice is underpinned, assuming a major role of perception precision in contexts of medical education and postgraduate training.