Concordance of Patients' and Physicians' Ratings of Morbidity – Impact on Treatment Adherence

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DETECT *Der Gesundheit auf der Spur*

Background

Especially in chronic diseases constant adherence to the treatment is important for improving their long-term course and health outcomes. Adherence is essentially influenced by patient-physician communication which potentially generates a shared perspective on morbidity. The patients' perception of their disease is an essential basis for proper health-related behaviour and forming a therapeutic alliance.

Aims

1. To examine the concordance of patients' and physicians' assessments of generic physical/mental health status.
2. To determine the possible influence of age, gender and occupational status on the concordance of patients' and physicians' ratings of morbidity.
3. To determine the impact of the amount of disagreement of both estimates of generic health status on treatment adherence (medicamentous compliance by patients' ratings and general compliance by physicians' ratings).

Results

1. **Concordance of patients' and physicians' assessments of generic physical and mental health status**
   Health status was measured by a scale ranging from 0 = bad/seriously ill to 3 = very good/inconspicuous. Patients' assessments of their physical (mean 1.7 vs. 2.3/ p < 0.001) and mental (mean 1.9 vs. 2.5/ p < 0.001) health was generally worse than their physicians' assessments. Only few patients (8.0%/6.2% physical/mental health) assessed their health status better than their physicians did. Regarding physical health status 36%, regarding mental health status 34.6% of the patients were estimated equally. 9.8/9.2% (physical/mental health status) of the cases showed a difference of 2 points between both assessments. The distributions for mental and physical health status are nearly similar (Figure 2). Absolute differences were used in the following analyses.

2. **Relationship of gender, age and occupational status on the concordance of patients' and physicians' assessments**
   The data could not show a linear relationship of **age** and patients-physicians disagreement of physical and mental health status. Patients from 45-65 years showed greater differences than did younger (18-44 years) or older patients (over 65 years). There was no significant difference between **men** and **women** (physical/mental health status: OR 1.01/0.98; CI 0.99-1.03/0.97-1.0). **Occupational status** has a significant influence on the deviation between patients' and physicians' assessments. Homemakers and unemployed showed a greater difference than did employed patients. Retired patients showed a smaller difference than unemployed patients (Table 1). Separate logistic regressions were calculated for each variable.

3. **Impact of the concordance of patients' and physicians' estimations (physical/mental health status) on treatment adherence**
   There are increasing problems in medicamentous compliance (patients' ratings) and general compliance (physicians' ratings) with increasing deviations in the assessments of physical and mental health status (Table 2).

Discussion

There are **differences in patients' and physicians' ratings of physical and mental health status**. Patients' assessments are generally worse than physicians' assessments, only a few patients rated their health status better than their physicians did. Distributions of differences between patients' and physicians' ratings of physical as well as mental health status are comparable. About 10% of the patients showed a great disagreement with physicians ratings.

The differences in the ratings show no relationship to **gender**, even if it is known that normally women report more complaints than do men. Possibly, men attending a primary care practice are even disposed to report more complaints and physicians are receiving similar information from men and women. Differences in the ratings are moderated by **age and occupational status**.

According to our hypothesis we could show that increasing differences in patients' and physicians' perception of the health status are related to worsening **treatment adherence.** This helds true for physicians' ratings of general compliance as well as for patients' ratings of medicamentous compliance. But it should be noted that both items /perspectives are not totally comparable.

Methods

DETECT is a German nationwide point-prevalence study (with an additional follow-up component) including 3,188 primary care physicians (72.3% general medicine and 26.7% internal medicine) and 55,518 consecutive patients (59% women and 41% men; over 18 years, mean age = 59.8 years). Patients' self-assessments and physicians' assessments of each patient were obtained. Questionnaires are available under http://www.detect-studie.de.
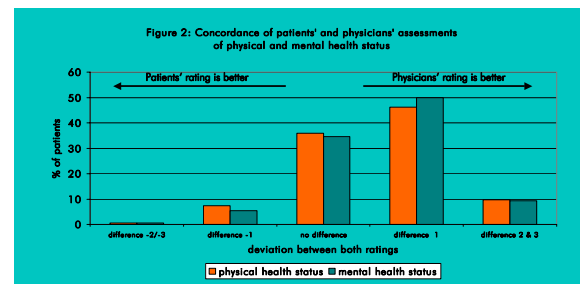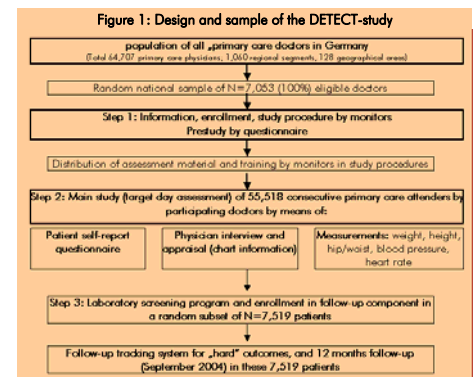

Figure 1: Design and sample of the DETECT-study

Figure 2: Concordance of patients' and physicians' assessments of physical and mental health status

Table 1: Occupational status and deviation of physicians and patients assessments (logistic regression analysis) (*significant)

		physical health status			mental health status		
	N (%)	OR	CI	mean	OR	CI	mean
employed	40.9%	reference		0.76	reference		0.74
unemployed	6.9%	1.21*	1.14-1.27	0.84	1.3*	1.22-1.38	0.85
Homemaker	7.9%	1.06*	1.01-1.12	0.79	1.14*	1.07-1.21	0.80
retired	40.2%	0.89*	0.86-0.92	0.71	1.03	0.99-1.06	0.76
others	4.0%	1.06	0.98-1.13	0.78	1.05	0.99-1.07	0.76

Table 2: Influence of the deviation of the generic assessments on compliance (multinomial regression analysis, controlled by age) (*significant)

Patient's rating of problems with medicamentous compliance		deviation between the assessments of physical health status		deviation between the assessments of mental health status	
		OR	CI	OR	CI
„hardly ever"	81.6 %	reference		reference	
„rarely"	14.2 %	1.17*	1.12-1.22	1.22*	1.17-1.28
„often"	3.2 %	1.31*	1.22-1.43	1.33*	1.22-1.45
„always"	0.9 %	1.14	0.98-1.33	1.19*	1.01-1.41
Physician's rating of general compliance		OR	CI	OR	CI
low	6.0%	reference		reference	
medium	26.6%	0.90*	0.84-0.96	0.94	0.87-1.01
high	67.4%	0.90*	0.87-0.93	0.96*	0.92-0.99

One of our main hypothesis was a possible deterioration of the long-term health outcomes because of a different perspective on morbidity mediated by worse compliance. We will examine this aspect in our follow-up subsample shortly. Our further analyses will also consider some more factors influencing the differences, for instance qualification, age and gender of the physicians etc..

Differences in the assessments could be decreased by better patient's-physician's communication and an improved physicians' training of verbal skills.