

# Structural framework and patient orientation in nursing care delivery systems

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## Background

Question mark icon: Patient-oriented care is receiving increasing attention. The alignment of structures and processes with individual patient needs has a positive influence on individual patients as well as clinical and economic outcomes. The instrument for assessing nursing care delivery systems (IzEP®) is used to record the patient orientation of the nursing care delivery system. The results can be used for practice development, quality management as well as scientific purposes. The aim of the present analysis is to investigate the relationship of structural framework characteristics with the degree of patient orientation in the inpatient care context based on data collected with IzEP®.

## Method

Measuring the degree of patient orientation in the form of a score: range of values 0 to 100, with <10 no arrangement, 10-40 task-oriented nursing, >40-75 team nursing, >75 primary nursing.

### 15 possible influencing factors

Parametric and non-parametric analysis methods: ANOVA incl. post-hoc-test, t-test for independent samples, Pearson`s correlation, partial correlation, Spearman`s Rho.

Calculation of effect sizes

\*\*\* < 0.001, \*\* < 0.01, \* < 0.05

## Sample

N = 576

Inpatient care

in hospitals (88.4%), rehabilitation hospitals (3.8%) and nursing homes (7.8%)

3 survey countries: Germany (45.5%), Austria (12%) und Switzerland (42.5%)

## Results

### Characteristics of the nursing team

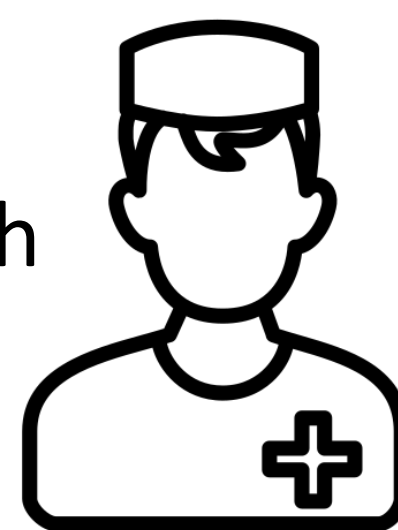
1. Number of beds/treatment places on the ward:

M = 24.32, sd = 10.02, n = 562;  $r_{yx.z} = -0.239$  \*\*\*

2. „Full-time equivalent (FTE)“ (proportion of registered nurses with 80-100% FTE): M = 47.17, sd = 15.86; n = 453;

$r_{yx.z} = 0.189$  \*\*

3. No sign. correlation: proportion of registered nurses in the overall team, length of team affiliation (proportion of registered nurses with a maximum of 1 year team affiliation) and professional experience (proportion of registered nurses with max. 2 years of professional experience).

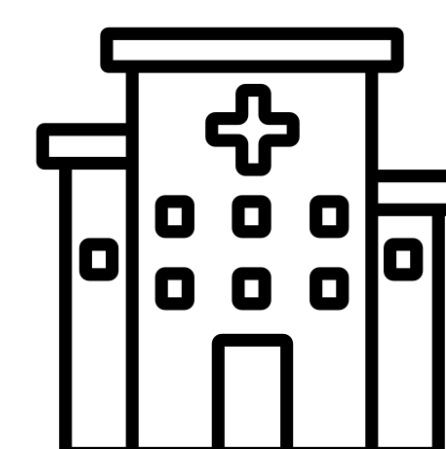


### Organizational criteria

1. Total number of beds in the facility: M = 549.37, sd = 683.17, n = 543;  $r = -0.192$  \*\*\*;  $r_{yx.z} = -0.234$  \*\*\* (third-variable of partial correlation: survey country)

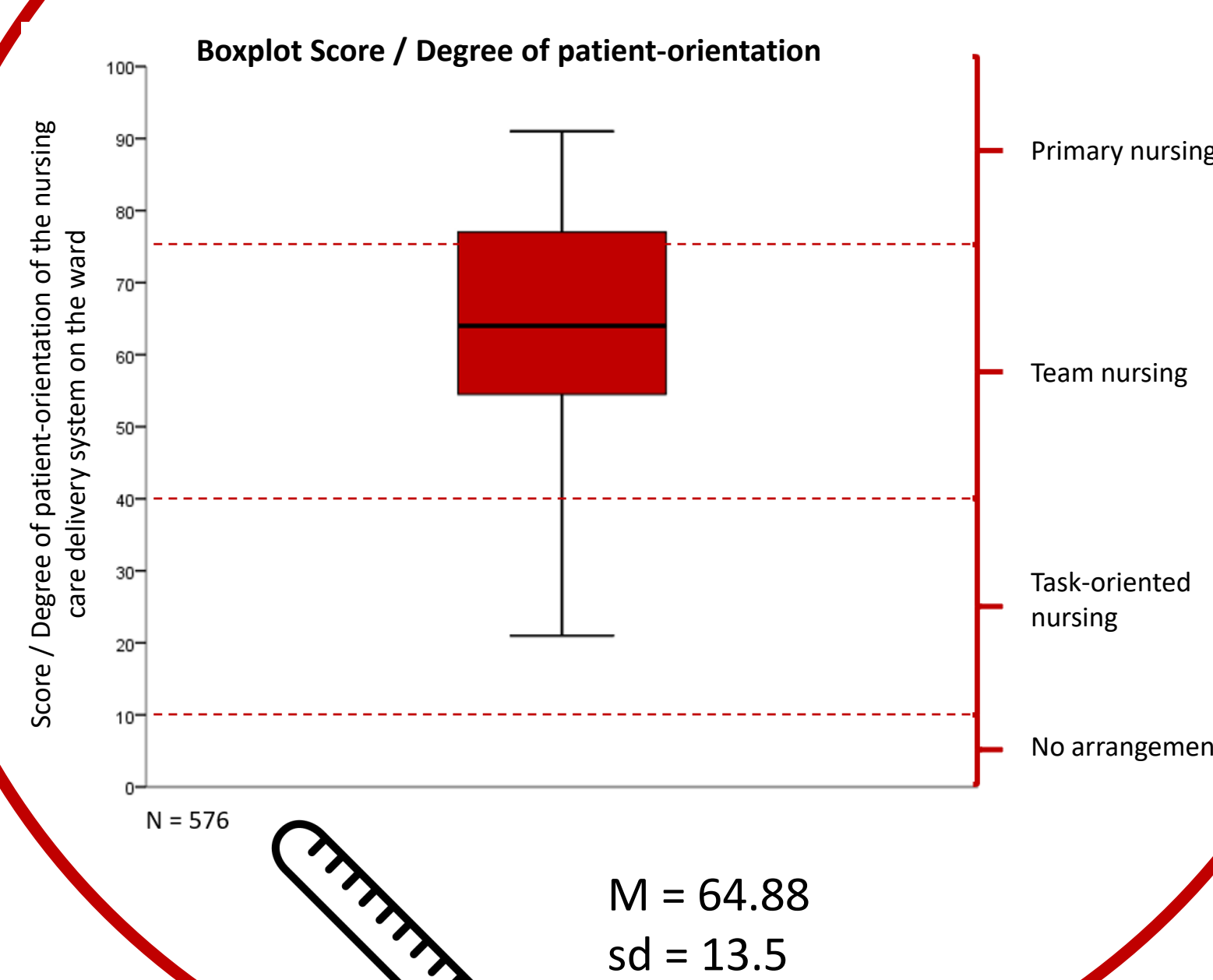
2. Proportion of single rooms on the total number of rooms on the ward: M = 26.55, sd = 25.38, n = 573;  $Rho = 0.119$  \*\*

3. No sign. correlation: facility category (acute care hospital, rehabilitation facility, nursing home)



Third-variables of partial correlation: the other factors of the group and the survey country

### Degree of patient-orientation



### Supportive structures

1. Use of supportive services:

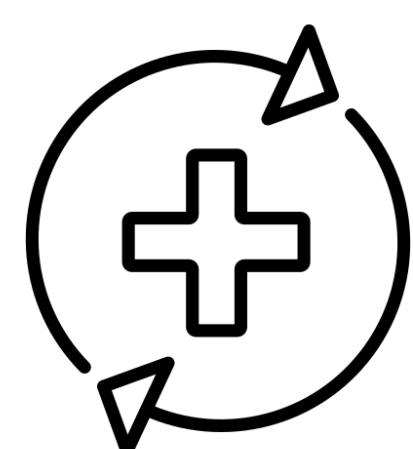
M (yes) = 65.54, sd (yes) = 13.53, M (no) = 53.75, sd (no) = 8.40, n = 566;  $T = -6.974$  \*\*\*,  $d = 0.89$

2. Form of documentation: M (score - electronic) = 70.75, sd (score - electronic) = 11.59, M (score - paper) = 63.32, sd (score - paper) = 13.83; M (score - mixed) = 65.22, sd (score - mixed) = 12.23, n = 3296;

$F = 85.693$  \*\*\*,  $\eta^2 = 0.049$ , results post-hoc-test: sign. differences electronic > paper, mixed

3. Further education rate (proportion of employees with a max. of ½ day of further education in the previous 12 months): M = 25.65, sd = 23.30, n = 217;  $r = -0.189$  \*\*;  $r_{yx.z} = -0.182$  \*

Third-variable of partial correlation: survey country



### Patient-related criteria

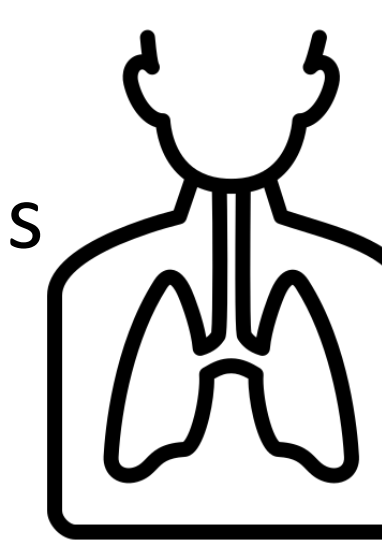
1. Age groups: M (score up to 18 yrs.) = 64.50, sd (score up to 18 yrs.) = 9.67, M (score 19-65 yrs.) = 67.75, sd (score 19-65 yrs.) = 13.54, M (score from 66 yrs.) = 2.18, sd (score from 66 yrs.) = 13.71, n = 539;  $F = 10.456$  \*\*\*,  $\eta^2 = 0.038$ , result post-hoc-test: sign. differences from 66 yrs., < 19 to 65 yrs., up to 18 yrs.

2. Length of stay „Short-stay patients“ (proportion of patients with max-3 days of stay): M = 31.68, sd = 24.33, n = 574;  $r = -0.149$  \*\*\*

3. Length of stay „Long-stay patients“ (proportion of patients with length of stay >1 month): M = 18.77, sd = 30.94, n = 574;  $r = 0.142$  \*\*\*

4. No sign. correlation: limitation of verbal communication skills

5. Not included in analysis: medical discipline



## Conclusion

Exclamation mark icon: Supportive structures promote patient orientation. The proportion of registered nurses in full-time positions and the proportion of single patient rooms are also positively related. In addition, the patient orientation decreases the more beds/treatment places a ward has and the larger the overall facility is. Differences also exist for patient age groups. Also, the patients length of stay shows connections with the degree of the patient orientation. By deliberately changing the framework conditions, the patient orientation of the nursing care delivery system can be decisively influenced and patient, economic and clinical outcomes can be optimized.