UNIVERSITÄT BASEL

Institute of Nursing Science

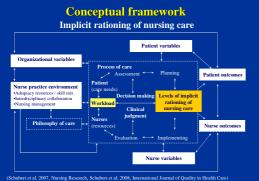


RICH-Nursing Study (Rationing of Nursing Care in Switzerland Study)

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Aims

- To document the extent of implicit rationing of nursing care in a sample of Swiss acute care hospitals
- To investigate the relationship between implicit rationing of nursing care, nurse work environment quality, staffing and skill mix and selected patient and nurse outcomes
- To benchmark the data of the involved Swiss hospitals with data from an international hospital outcomes study (IHOS)



Model 1: Patient Satisfaction*

Implicit rationing of nursing care (1/2 point↑) OR 0.63, 95% VI (0.38, 1.05), p 0.08	Ŷ
Workload (nurse/ patient ratio), 1 patient ↑) OR 0.97, 95% VI (0.89, 1.06), p 0.50	<u> </u>
Staffing & Resources& Autonomy OR 0.78; 95% VI (0.24, 2.57), p 0.68	Patient
Interdisciplinary collaboration & competence OR 1.51, 95% VI (0.37, 6.24), p 0.57]
Patient are in less good health compared to othe their age OR 1.46, 95% VI (1.02, 2.09), p 0.04	*
* Patient survey	

Model 4: Nosocomial Infections* (sometimes - often in the last year)

Implicit rationing of nursing care (1/2 point [†]) OR 1.61, 95% VI (1.03, 2.51), p 0.04	↑
Workload (nurse/ patient ratio), 1 patient ↑) OR 1.00, 95% VI (0.92, 1.08), p 0.93	
Staffing & Resources& Autonomy OR 0.48, 95% VI (0.22, 1.03), p 0.06	Nosocomial Infections
Interdisciplinary collaboration & competence OR 1.48, 95% VI (0.50, 4.35), p 0.48	
Hospital size (100 beds ↑) OR 1.00, 95% VI (1.00, 1.08), p 0.001	^
Surgical department (compared with medical) OR 0.54, 95% VI (0.37, 0.78), p 0.001	

Design / Sample

- Multi-center cross-sectional design
- 8 Swiss acute care hospitals in the German (5) and French (3) speaking regions of Switzerland (convenience sample)
- 1338 of 2052 eligible nurses (DNI or DNII) participated
- 779 of 1190 eligible patients participated
- 65% response rate for both samples



Model 2: Medication Errors* (sometimes - often in the last year)

Implicit rationing of nursing care (1/2 point [↑])

OR 1.68, 95% VI (1.17, 2.41), p 0.005	^		
Workload (nurse/ patient ratio), 1 patient ^) OR 1.00, 95% VI (0.93, 1.07), p 0.99]	Medication	
Staffing & Resources& Autonomy OR 0.71, 95% VI (0.39, 1.31), p 0.28	\mathbf{F}	errors	Т
Interdisciplinary collaboration & competence OR 1.37, 95% VI (0.58, 3.24), p 0.47	7		

Model 5: Critical Incidents*

(sometimes - often in the last year)			
Implicit rationing of nursing care (1/2 point ↑) OR 1.10, 95% VI (1.04, 1.17), p 0.002	♠		
Workload (nurse/ patient ratio), 1 patient ↑) OR 0.99, 95% VI (0.98, 1.00), p 0.15	þ	Critical	
Staffing & Resources& Autonomy OR 0.96, 95% VI (0.87, 1.07), p 0.45	F	incidents	T
Interdisciplinary collaboration & competence OR 0.93, 95% VI (0.80, 1.07), p 0.31			

Conclusions / Recommendations

Implicit rationing of nursing care

- Is an important new empirical factor, which appears to be directly linked with patient safety outcomes and quality of hospital care
- Appears to reflect conditions affected by the adequacy of staffing and quality of the nurse practice environment vis-à-vis patient outcomes
- Should be avoided as much as possible, since all detectable rationing showed negative effects on three of the six studied patient outcomes
- The identified rationing threshold levels (0.5 and 1.0) can be used (clinicians, administrators) to track negative effects of low resources, or difficulties in allocating those resources, on patient outcomes, and to respond accordingly whenever rationing exceeds tolerable levels

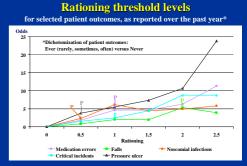
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Definition Implicit Rationing of Nursing Care

"Implicit rationing of nursing care refers to the withholding or failure to carry out necessary nursing tasks due to inadequate time, staffing levels and/or skill mix"

(Schubert & De Geest, 2005)



Model 3: Falls with and without injuries* (sometimes - often in the last year)

Implicit rationing of nursing care (1/2 point ↑) OR 2.81, 95% VI (1.65, 4.78), p <0.001	1
Workload (nurse/ patient ratio), 1 patient ↑) OR 1.01, 95% VI (0.92, 1.11), p 0.87	
Staffing & Resources& Autonomy OR 1.00, 95% VI (0.41, 2.43), p 0.99	→ Falls
Interdisciplinary collaboration & competence OR 1.63, 95% VI (0.46, 5.85), p 0.45	→
Medical department (compared to surgical) OR 1.77, 95% VI (1.13, 2.76), p 0.01	
Model 6: Pressure Ulcers* (sometimes - often in the last year)	
Implicit rationing of nursing care (1/2 point [†]) OR 1.15, 95% VI (1.06, 1.25), p 0.001	↑
Workload (nurse/ patient ratio), 1 patient [↑]) OR 0.99, 95% VI (0.99, 1.01), p 0.15	
Staffing & Resources & Autonomy OR 1.00; 95% VI (0.99, 1.02), p 0.55	Pressure
Interdisciplinary collaboration & competence OR. 1.01, 95% VI (0.83, 1.24), p 0.91	
Age of the nurse 20-30 years: OR 1.00 (reference group) 31-40 y: OR 0.91, 95% VI (0.86, 0.98), p 0.008 41-50 y: OR 0.88, 95% VI (0.80, 0.97), p 0.008 51-70 y: OR 0.85, 95% VI (0.73, 0.99), p 0.04	•
Hospital size (100 beds ↑) OR 1.00, 95% VI (1.00, 1.08), p 0.009	^

(Schubert et al. 2008, International Journal of Quality in Health Care)

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