



AIIAO

Associazione Italiana Infermieri
di Area Oncologica
Affiliata EONS
European Oncology Nursing Society

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**VALUTAZIONE DELLE
PERFORMANCE ASSISTENZIALI
IN AMBITO ONCOLOGICO**

9-10 Giugno 2017

Università Campus Bio-Medico

ROMA



**L'impatto dell'assistenza
infermieristica nella
sostenibilità e continuità
delle cure in oncologia**

Maria Grazia De Marinis

Rapporto sulla sostenibilità del Servizio Sanitario Nazionale 2016-2025



Presentato a Roma il 7 giugno 2016
Sala degli Atti parlamentari della
Biblioteca "Giovanni Spadolini"
Senato della Repubblica

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Il problema della sostenibilità

- **Il progressivo invecchiamento della popolazione**
- **il costo crescente delle innovazioni**
- **il costante aumento della domanda di servizi e prestazioni**

Alcune Criticità

- **diseguaglianze**
- **carenza di efficaci strategie di prevenzione**
- **inadeguato coordinamento dell'assistenza**

THE NATIONAL INSTITUTE OF NURSING RESEARCH

Changing Practice, Changing Lives:
10 Landmark Nursing Research
Studies





Prevenzione

COPING SKILLS TRAINING IMPROVES TEENS' SELF-MANAGEMENT OF DIABETES

HELPING YOUTHS ESTABLISH HEALTHY HABITS OF EXERCISE AND DIET

A HEALTH CARE TEAM HELPS REDUCE HIGH BLOOD PRESSURE AMONG INNER-CITY BLACK MEN

REDUCING HIV RISK AMONG YOUNG MINORITY WOMEN

A COMMUNITY-BASED PROGRAM IMPROVES SELF-MANAGEMENT OF ARTHRITIS AMONG OLDER HISPANICS

This research is helping to:

PREDICT which individuals will benefit from self-management of arthritis;
PERSONALIZE treatment options, especially among Hispanics in the U.S.;
PREEMPT declines in health and the need for health care visits due to the effects of arthritis and other chronic conditions by improving patient control and self-management.

ORIGINAL ARTICLE

Clinical and Psychosocial Factors Associated With Achievement of Treatment Goals in Adolescents With Diabetes Mellitus

MARGARET GREY, DR.P.H., F.A.A.N., MARYANNE DAVIDSON, M.S.N., P.N.P.,
ELIZABETH A. BOLAND, M.S.N., A.P.R.N., AND WILLIAM V. TAMBORLANE, M.D.



Table 2. Logistic Regression of Factors Associated With Achievement of HbA1c < 7.2% by 1 Year

Variable	β	SE β	<i>p</i>	Odds	95% CI Ratio
Baseline HbA1c	1.34	.87	.05	2.24	1.22-4.98
Family guidance and control	.89	.42	.05	1.96	1.14-2.18
Depression	.03	.04	.48	0.025	0.0-1301.8
Treatment regimen	2.34	7.5	.75	0.097	.94-1.15
Treatment group \times baseline HbA1c	.21	.07	.003	2.67	1.43-6.44

$\chi^2 = 18.3, df = 5, p = .003.$



Table 3. Multiple Regression Results for Quality of Life

Variable	β	SE β	<i>t</i>	<i>p</i>	R^2 Change
Baseline impact of diabetes on quality of life	.70	.08	8.48	.001	.44
Treatment group \times baseline impact of diabetes on quality of life	.27	.15	3.18	.002	.17
Depression	.26	.07	2.93	.03	.05
Self-efficacy for diabetes	-.13	.04	-1.52	.13	

$R^2 = .66; \text{adjusted } R^2 = .57.$



Table II. Physical variables, behavior, and knowledge: Baseline and posttest intervention means and standard errors (unadjusted)

Measure	Intervention group (n = 588)		Control group (n = 686)	
	Mean	SE	Mean	SE
Cholesterol (mg/dl)				
Baseline	168.28	1.26	164.99	1.07
Posttest	161.32	1.21	163.58	1.18
Absolute change	-6.79	0.85	-1.40	0.78
Percent change	-3.20	0.52	-0.39	0.47
Systolic blood pressure (mm Hg)				
Baseline	103.43	0.41	104.06	0.38
Posttest	107.35	0.37	108.24	0.38
Absolute change	3.96	0.38	4.18	0.35
Percent change	4.32	0.38	4.46	0.35
Diastolic blood pressure (mm Hg)				
Baseline	68.24	0.35	67.88	0.33
Posttest	72.88	0.39	73.66	0.34
Absolute change	4.63	0.44	5.74	0.39
Percent change	8.06	0.72	9.72	0.62
Skin folds (mm)				
Baseline	25.58	0.57	26.14	0.55
Posttest	24.63	0.57	26.43	0.59
Absolute change	-0.90	0.21	0.25	0.17
Percent change	-2.91	0.67	1.14	0.57
Body mass index (kg/m²)				
Baseline	18.26	0.14	18.47	0.14
Posttest	18.50	0.14	18.70	0.14
Absolute change	0.24	0.03	0.18	0.04
Percent change	1.40	0.17	1.15	0.21
Height (cm)				
Baseline	135.49	0.29	136.28	0.28
Posttest	137.80	0.30	138.18	0.29
Absolute change	2.23	0.05	1.85	0.03
Percent change	1.65	0.03	1.36	0.02
Weight (kg)				
Baseline	33.90	0.36	34.70	0.35
Posttest	35.51	0.37	36.12	0.37
Absolute change	1.60	0.07	1.32	0.07
Percent change	4.76	0.17	3.91	0.22
PvO₂ (ml/kg/min)				
Baseline	42.59	0.40	41.58	0.39
Posttest	45.22	0.39	42.89	0.41
Absolute change	2.66	0.29	1.34	0.25
Percent change	8.27	0.81	4.44	0.65
Physical activity score				
Baseline	64.52	1.27	62.57	1.08
Posttest	66.71	1.23	62.32	1.11
Absolute change	1.89	1.46	-0.76	1.25
Percent change	22.66	3.24	15.09	2.89
Knowledge (% correct)				
Exercise	67.27	0.65	58.79	0.57
Exercise	51.45	0.85	41.59	0.69
Nutrition	72.32	0.84	66.06	0.78

Effects of a school-based intervention to reduce cardiovascular disease risk factors in elementary-school children: The Cardiovascular Health in Children (CHIC) Study

Joanne S. Harrell, PhD, Robert G. McMurray, PhD, Shrikant I. Bangdiwala, PhD, Annette C. Frauman, PhD, Stuart A. Gansky, MS, and Chyrise B. Bradley, MA

From the School of Nursing, Department of Physical Education, Exercise and Sport Science, and the Department of Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina



Hypertension Care and Control in Underserved Urban African American Men: Behavioral and Physiologic Outcomes at 36 Months

Martha N. Hill, Hae-Ra Han, Cheryl R. Dennison, Miyong T. Kim, Mary C. Roary, Roger S. Blumenthal, Lee R. Bone, David M. Levine, and Wendy S. Post



Table 4. Change in demographics, behavioral factors, and HTN care utilization from baseline to 36 months (*n* = 231)

	MI (<i>n</i> = 125)		LI (<i>n</i> = 106)	
	Baseline	36 Months	Baseline	36 Months
Sociodemographic characteristics (%)				
Unemployment	67	58†	71	60†
Income <\$10,000/y	68	58	73	57†
No health insurance	54	26†	43	25†
Lifestyle risk factors (%)				
Illicit drug-positive via urine toxicity screen	40	45	44	40
Current cigarette smoking	84	70†	76	65†
Eat salty food all or most of time	56	16†	49	26†
Cardiovascular risk factors (%)				
TC >200 mg/dL	32	34	30	39
HDL-C <35 mg/dL	28	16†	36	18†
TC/HDL-C >5	31	20†	36	29
Diabetes	7	10	14	16
BMI 25–30 kg/m ²	30	30	31	30
BMI >30 kg/m ²	26	29	26	30
HTN care utilization (%)				
MD/NP for HTN care*	67	94†	72	69
On anti-HTN meds*	35	91†	35	65†

* Between-group difference at 36 months, *P* < .001.

† Within-group changes from baseline to 36 months, *P* < .05.



Original Contribution

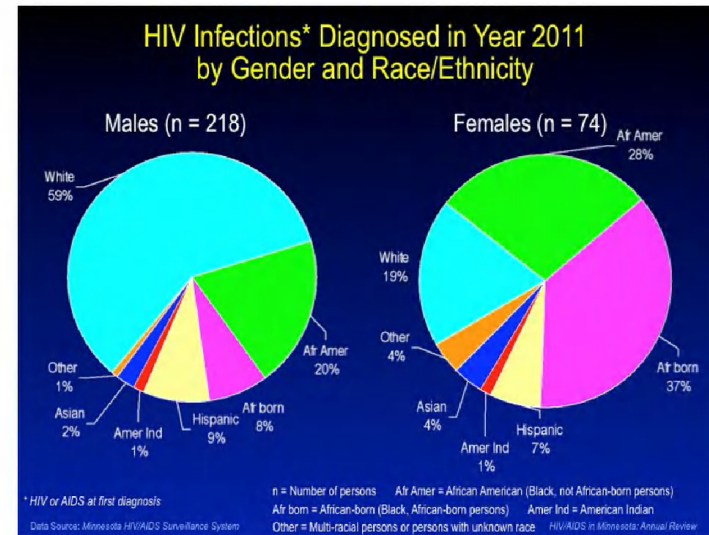
Abstinence and Safer Sex HIV Risk-Reduction Interventions for African American Adolescents

A Randomized Controlled Trial

John B. Jemmott III, PhD; Loretta Sweet Jemmott, PhD, RN, FAAN; Geoffrey T. Fong, PhD



Respect yourself
Protect yourself.
Because you'r
worth it



Community-Based Spanish Language Arthritis Education Program

A Randomized Trial

KATE LORIG, RN, DRPH, VIRGINIA M. GONZALEZ, MPH, AND PHILIP RITTER, PhD



Vol. 37, No. 9

SPANISH ARTHRITIS EDUCATION

TABLE 2. Baseline and 4-Month Changes for Treatment and Control Subjects

	Baseline		4-Month Change			Significance P*
	Treatment Mean (SD) (n = 189)	Control Mean (SD) (n = 97)	Treatment Mean (SD)	Control Mean (SD)	E.S.	
Health behaviors						
Range of motion exercise ¹⁰ (min/wk)	41.7 (58.5)	50.9 (66.1)	22.2 (68.7)	-6.9 (73.1)	0.41	0.004 [†]
Aerobic exercise ¹⁰ (min/wk)	95.7 (109.6)	98.8 (106.7)	25.7 (119.2)	17.5 (130.2)	0.07	0.41
Health status						
General health ¹⁰ (1-5, ↓ = better)	3.7 (0.81)	3.5 (0.97)	-0.33 (0.86)	-0.12 (0.82)	0.25	0.20
Disability ¹² (0-3, ↓ = better)	0.88 (0.68)	0.82 (0.70)	-0.10 (0.49)	0.0 (0.41)	0.32	0.03
Pain ^{10, 15, 16} (0-10, ↓ = better)	5.5 (2.5)	5.7 (2.4)	-0.88 (2.4)	0.02 (2.2)	0.38	0.0001 [†]
Self-efficacy ¹⁰ (0-10, ↑ = better)	6.4 (2.3)	6.3 (2.4)	1.1 (2.2)	-0.04 (2.2)	0.50	0.0001 [†]
Depression ¹³ (0-57, ↓ = better)	20.8 (12.4)	20.2 (12.7)	-3.2 (10.1)	-2.5 (9.3)	0.07	0.67
Drug and health care utilization						
Outpatient MD visits ¹⁰ (times past 6 months)	2.0 (2.6)	1.9 (1.9)	-0.06 (2.9)	-0.24 (1.7)	0.07	0.16
NSAIDS	0.53 (.50)	0.66 (.48)	-0.04 (.52)	-0.18 (.50)	0.27	0.28

*Analysis of covariance on posttest scores controlling for pre-test score, age, gender, education, use of steroids, and use of NSAIDS.

[†]Remained statistically significant at the .05 level after adjustment for multiple comparison using a Bonferroni correction.





Assistenza

DEVELOPING AN INDEX TO REDUCE PRESSURE SORE RISK

This research is helping to:

- PREDICT persons at risk for developing a pressure sore;
- PERSONALIZE care to maintain skin integrity for immobilized patients;
- PREEMPT the need to treat a pressure sore after it has developed, which often adds several days and tens of thousands of dollars to the cost of hospitalization.

GENDER-BASED DIFFERENCES IN PAIN RESPONSE

This research is helping to:

- PREDICT persons who can be helped by certain medications for pain;
- PERSONALIZE gender-based strategies to manage pain;
- PREEMPT the lower quality of life and increased disability related to chronic pain.

Multi-site Study of Incidence of Pressure Ulcers and the Relationship Between Risk Level, Demographic Characteristics, Diagnoses, and Prescription of Preventive Interventions

Nancy Bergstrom, PhD, RN, FAAN,* Barbara Braden, PhD, RN, FAAN†
 Mildred Kemp, PhD, RN, FAAN,‡ Mary Champagne, PhD, RN, FAAN,§ and
 Elizabeth Ruby, MS¶

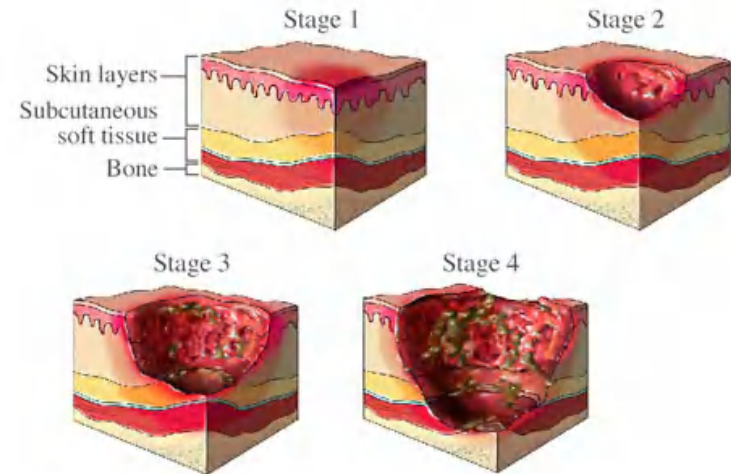


Table 3. Logistic Regression Predicting Pressure Ulcer Development Using Demographic Characteristics, Braden Scale Score, and Preventive Measures

	OR	95% CI	χ^2	P
Variables in Model				
Turning Prescription	.68	0.37-1.22	1.68	.195
Pressure Reduction	.80	0.49-1.30	0.81	.368
Braden Scale	1.30	1.19-1.41	36.05	<.001
Age	.97	0.95-0.98	15.56	<.001
Race	2.73	1.25-5.98	6.29	.012
Gender	0.93		0.08	.773
Intercept			1.60	.206
Model χ^2			121.80	<.001
Degrees of Freedom			6	

SCALA DI BRADEN

Indicatori	4	3	2	1
Percezione sensoriale	Non limitata	Leggermente	Molto limitata	Completamente limitata
Umidità	Raramente bagnato	Occasionalmente bagnato	Spesso bagnato	Costantemente bagnato
Attività	Cammina frequentemente	Cammina occasionalmente	In poltrona	Completamente allettato
Mobilità	Limitazione assente	Parzialmente limitata	Molto limitata	Immobile
Nutrizione	Eccellente	Adeguate	Probabilmente povera	Molto povera
Frizione e scivolamento		Assenza di problemi	Problema potenziale	Problema

Vi è rischio di contrarre lesioni con un punteggio =<16pt



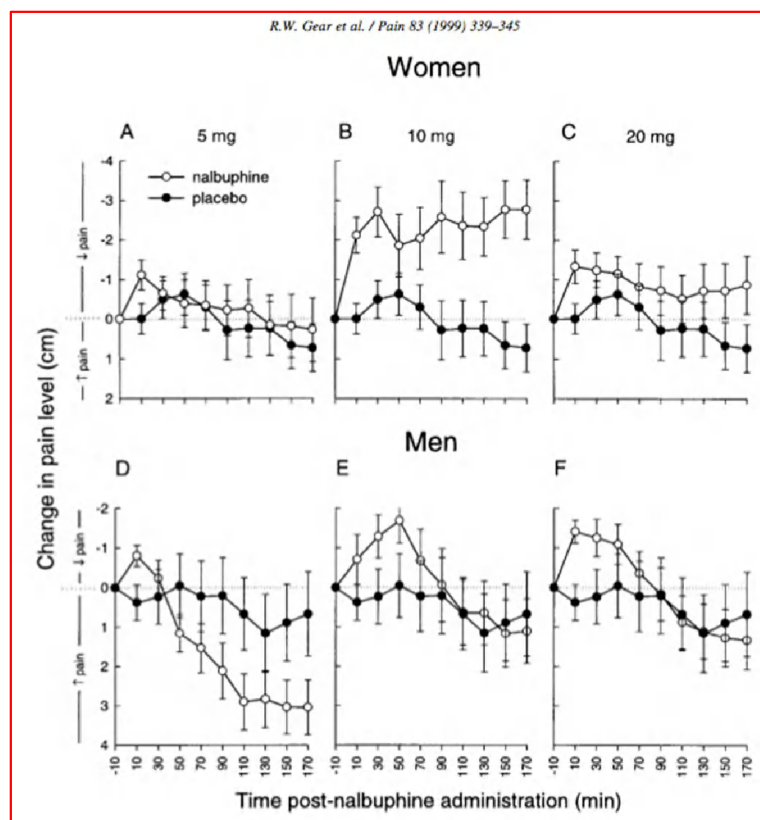
Pain 83 (1999) 339–345

PAIN

www.elsevier.nl/locate/pain

The kappa opioid nalbuphine produces gender- and dose-dependent analgesia and antianalgesia in patients with postoperative pain

Robert W. Gear^{a,b}, Christine Miaskowski^c, Newton C. Gordon^b, Steven M. Paul^{c,d},
Philip H. Heller^h, Jon D. Levine^{b,e,f,g,*}





Organizzazione dei servizi sanitari

TRANSITIONAL CARE IMPROVES OUTCOMES FOR ELDERERS AFTER LEAVING THE HOSPITAL

This research is helping to:

PREDICT problems in the transition of care for elders after hospital discharge;
PERSONALIZE discharge planning and home care to individual health care needs;
PREEMPT complications and rehospitalizations after elderly patients are discharged home.

HOME NURSING VISITS BENEFIT LOW- INCOME MOTHERS AND THEIR CHILDREN

This research is helping to:

PREDICT the needs of young mothers at risk for pregnancy complications and children at risk for behavioral or developmental problems;
PERSONALIZE pre- and post-natal care to help these women and their families cope;
PREEMPT adverse pregnancy and child outcomes, and a continued cycle of pregnancy and impoverishment in low-income or minority families.

INADEQUATE NURSE STAFFING INCREASES RISKS FOR PATIENTS

This research is helping to:

PREDICT factors involved in hospital nursing care and patient safety;
PERSONALIZE methods to promote safe hospital environments and nurse job satisfaction;
PREEMPT adverse patient outcomes by promoting safe nurse working conditions and staffing levels.

J Am Geriatr Soc 52:675–684, 2004.

Transitional Care of Older Adults Hospitalized with Heart Failure: A Randomized, Controlled Trial

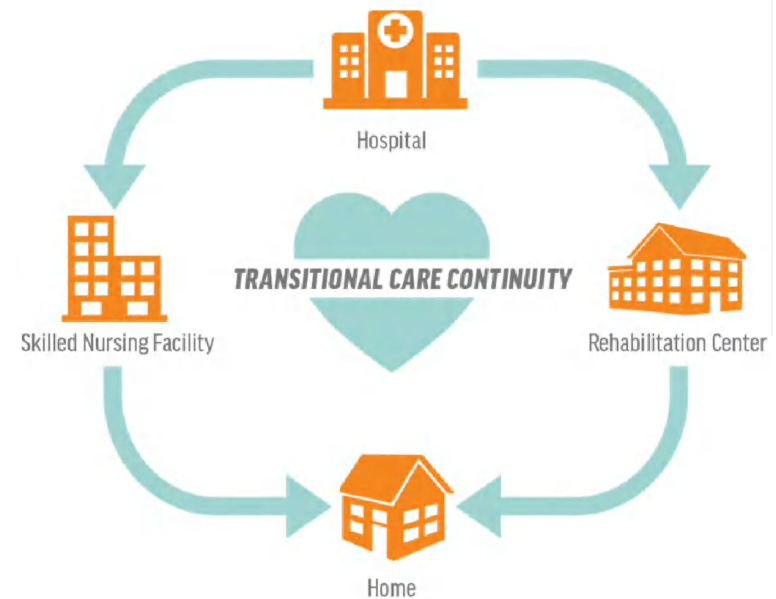
Mary D. Naylor, PhD,*[†] Dorothy A. Brooten, PhD,^{||} Roberta L. Campbell, PhD,* Greg Maislin, MS, MA,[¶] Kathleen M. McCauley, PhD,* and J. Sanford Schwartz, MD^{†‡§}

Table 2. Time to First Rehospitalization or Death by Patient Characteristic (Multivariate Cox Proportional Hazards Model)

Variable	Incidence Density Ratio (95% Confidence Interval)	P-value
Control group versus intervention group	1.65 (1.13–2.40)	.001
Fair or poor self-rating versus good or excellent self-rating	1.29 (0.83–2.00)	.263
Number of prior hospitalizations within the past 6 months	1.19 (1.06–1.35)	.005
Living with spouse versus relative or friend*	0.81 (0.51–1.29)	.376
Living alone versus with relative or friend*	0.59 (0.35–0.98)	.043
Number of daily medications	1.09 (1.02–1.16)	.014
Site [†]		.176

* Likelihood ratio test for prior living arrangements $\chi^2 = 4.262$, $df = 2$, $P = .119$.

[†] Likelihood ratio test for site differences $\chi^2 = 7.663$, $df = 5$.



Effect of Prenatal and Infancy Home Visitation by Nurses on Pregnancy Outcomes, Childhood Injuries, and Repeated Childbearing

A Randomized Controlled Trial

Harriet Kitzman, RN, PhD; David L. Olds, PhD; Charles R. Henderson, Jr; Carole Hanks, RN, DrPH; Robert Cole, PhD; Robert Tatelbaum, MD; Kenneth M. McConnochie, MD, MPH; Kimberly Sidora, MPH; Dennis W. Luckey, PhD; David Shaver, MD; Kay Engelhardt, RN, PhD; David James, MD; Kathryn Barnard, RN, PhD



Table 3.—Adjusted Birth Weight, Length of Gestation, and Apgar Outcomes by Treatment Condition*

Dependent Variables	Comparison Groups, Mean	Nurse-Visited Groups, Mean	Mean Difference†	95% Confidence Interval
Birth weight, g	3050.4	3032.2	18.2	-62.4 to 98.7
Gestational age, wk	39.0	39.0	0.0	-0.4 to 0.4
5-min Apgar	8.7	8.6	0.1	-0.1 to 0.3
			Odds Ratio‡	95% Confidence Interval
Low birth weight (<2500 g), %	14	15	1.1	0.8 to 1.6
IUGR,§ %	9	9	1.0	0.6 to 1.5
Preterm (<37 wk), %	13	11	0.8	0.6 to 1.2
Indicated preterm delivery, %	3	3	1.0	0.5 to 2.4
Spontaneous preterm delivery, %	9	8	0.8	0.5 to 1.3

*Estimates adjusted for maternal age, number of cigarettes smoked, sex of child, maternal prepregnancy weight, and maternal height. Comparison groups were treatment groups 1 and 2; nurse-visited groups, treatment groups 3 and 4.

†Difference = (comparison mean) - (nurse-visited mean).

‡Odds = $p/(1-p)$; odds ratio = nurse-visited odds/comparison odds.

§Intrauterine growth restriction; cases with birth weights less than 10th percentile for gestational age.



Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction ^F

Linda H. Aiken, PhD, RN; Sean P. Clarke, PhD, RN; Douglas M. Sloane, PhD; Julie Sochalski, PhD, RN; Jeffrey H. Silber, MD, PhD

JAMA. 2002;288(16):1987-1993. doi:10.1001/jama.288.16.1987.



Linda Aiken

Table 4. Patient-to-Nurse Ratios With High Emotional Exhaustion and Job Dissatisfaction Among Staff Nurses and With Patient Mortality and Failure-to-Rescue*

	Odds Ratio (95% Confidence Interval)					
	Unadjusted	P Value	Adjusted for Nurse or Patient Characteristics	P Value	Adjusted for Nurse or Patient and Hospital Characteristics	P Value
Nurse outcomes						
High emotional exhaustion	1.17 (1.10-1.26)	<.001	1.17 (1.10-1.26)	<.001	1.23 (1.13-1.34)	<.001
Job dissatisfaction	1.11 (1.03-1.19)	.004	1.12 (1.04-1.19)	.001	1.15 (1.07-1.25)	<.001
Patient outcomes						
Mortality	1.14 (1.08-1.19)	<.001	1.09 (1.04-1.13)	<.001	1.07 (1.03-1.12)	<.001
Failure-to-rescue	1.11 (1.06-1.17)	.004	1.09 (1.04-1.13)	.001	1.07 (1.02-1.11)	<.001

*Odds ratios, indicating the risk associated with an increase of 1 patient per nurse, and confidence intervals were derived from robust logistic regression models that accounted for the clustering (and lack of independence) of observations within hospitals. Nurse characteristics were adjusted for sex, experience (years worked as a nurse), type of degree, and type of unit. Patient characteristics were adjusted for the patient's Diagnosis Related Groups, comorbidities, and significant interactions between them. Hospital characteristics were adjusted for high technology, teaching status, and size (number of beds).

THE LANCET

Articles

Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study



Linda H Aiken, Douglas M Sloane, Luk Bruyneel, Koen Van den Heede, Peter Griffiths, Reinhard Busse, Marianna Diomidous, Juha Kinnunen, Maria Kozka, Emmanuel Lesaffre, Matthew D McHugh, M T Moreno-Casbas, Anne Marie Rafferty, Rene Schwendimann, P Anne Scott, Carol Tishelman, Theo van Achterberg, Walter Sermeus, for the RN4CAST consortium*

Summary

Background Austerity measures and health-system redesign to minimise hospital expenditures risk adversely affecting patient outcomes. The RN4CAST study was designed to inform decision making about nursing, one of the largest components of hospital operating expenses. We aimed to assess whether differences in patient to nurse ratios and nurses' educational qualifications in nine of the 12 RN4CAST countries with similar patient discharge data were associated with variation in hospital mortality after common surgical procedures.

Methods For this observational study, we obtained discharge data for 422730 patients aged 50 years or older who underwent common surgeries in 300 hospitals in nine European countries. Administrative data were coded with a standard protocol (variants of the ninth or tenth versions of the International Classification of Diseases) to estimate 30 day in-hospital mortality by use of risk adjustment measures including age, sex, admission type, 43 dummy variables suggesting surgery type, and 17 dummy variables suggesting comorbidities present at admission. Surveys of 26516 nurses practising in study hospitals were used to measure nurse staffing and nurse education. We used generalised estimating equations to assess the effects of nursing factors on the likelihood of surgical patients dying within 30 days of admission, before and after adjusting for other hospital and patient characteristics.

Findings An increase in a nurses' workload by one patient increased the likelihood of an inpatient dying within 30 days of admission by 7% (odds ratio 1.068, 95% CI 1.031-1.106), and every 10% increase in bachelor's degree nurses was associated with a decrease in this likelihood by 7% (0.929, 0.886-0.973). These associations imply that patients in hospitals in which 60% of nurses had bachelor's degrees and nurses cared for an average of six patients

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See Online Comment
[http://dx.doi.org/10.1016/S0140-6736\(14\)60288-4](http://dx.doi.org/10.1016/S0140-6736(14)60288-4)
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Realizzazione di un'assistenza competente ed empatica



PROMOTING HEALTH
NURSING RESEARCH INNOVATION
SCIENCE SYMPTOM SCIENCE
QUALITY OF LIFE SELF-MANAGEMENT
WELLNESS DEVELOPING NURSE SCIENTISTS
HEALTH STRATEGIES
PALLIATIVE CARE PERSONALIZED END-OF-LIFE
INDIVIDUALS TECHNOLOGY



Coordinamento ed integrazione delle strutture e del personale



Informazione, Comunicazione, Educazione

