Author (year)	Country	Aim	Study design	Population	Setting	Sample size	Instrument	Influencing factors	(statistical) analysis	Corrected	Results	Outcomes	(statistical) analysis	Corrected	Results
Anzai, Douglas, and Bonner [85]	Japan	To describe Japanese hospital nurses' perceptions of the nursing practice environment and examine its association with nurse-reported ability to provide quality nursing care, quality of patient care, and ward morale.	Cross-sectional	Nurses working in acute inpatient wards	12 acute-care (i.e., medical, surgical, and mixed) inpatient wards in a large teaching hospital in the middle of Japan	n=223	Staffing and resource adequacy subscale of the PES-NWI (Japanese version)	Occupation (ward nurse manager or staff nurse)	t-test		NS	Ability to provide quality nursing care	Pearson's correlation		NS
								Ward morale	Pearson's correlation		r=0.33, p<0.01	Quality of patient care	""		r=0.29, p<0.01
								Ward morale	Hierarchical regression	Demographics (gender, years working as a nurse, education), work characteristics (position, shift type, number of total shifts, percentage of day shifts, hours of overtime work, number of patients in day shifts), and PES-NWI subscales (nurse participation in hospital affairs, nursing foundations for quality of care, nurse manager ability, leadership, and support of nurses, collegial nurse-physician relations)	β=0.17, p=0.03	Ability to provide quality nursing care	Hierarchical regression	Demographics (gender, years working as a nurse, education), work characteristics (position, shift type, number of total shifts, percentage of day shifts, hours of overtime work, number of patients in day shifts), and PES-NWI subscales (nurse participation in hospital affairs, nursing foundations for quality of care, nurse manager ability, leadership, and support of nurses, collegial nurse-physician relations)	NS
												Quality of patient care	""	""	β=0.18, p=0.02
Asiret, Kapucu, Kose, Kurt, and Ersoy [83]	Turkey	To determine the effect of the factors affecting nurses' work environment and the work environment itself on the satisfaction of nurses	Cross-sectional	Nurses	A university hospital in Ankara	n=327	Staffing and resource adequacy subscale of the PES-NWI	Educational level	t-test		t=2.392, p=0.017				
								Professional experience	""		t=3.049, p=0.002				
								Age	""		NS				
								Gender	""		NS				
								Working duration in unit	""		NS				
								Work unit	ANOVA		NS				
Bachnick, Ausserhofer, Baernholdt, and Simon [60]	Switzerland	To describe patient-centered care in Swiss acute care hospitals and to explore the associations with nurse work environment factors and implicit rationing of nursing care.	Cross-sectional	Registered nurses	Medical, surgical and mixed units of Swiss acute care hospitals	n=2073 patient n=1810 nurses	Staffing and resource adequacy subscale of the PES-NWI					Patient-centered care (PCC): Easy to understand	Generalized lineair mixed model	Patient characteristics (age, gender, language, levels of education)	β=0.486, CI 0.06 - 0.91, p<0.05
												Sufficient information	""	""	β=0.638, CI 0.30 - 0.98, p<0.001,
												Involved in decision	""	""	β=0.351, CI 0.03 - 0.67, p<0.05
												Treatment & care adapted	""	""	β=0.456, CI 0.04 - 0.87, p<0.05
Bae, Brewer, Kelly, and Spencer [49]	U.S.	To examine the nature and prevalence of the use of temporary nursing staff in intensive care units and relationships between the use of temporary nursing staff and the occurrence of nosocomial infections (central lineassociated blood stream infections and ventilator-associated pneumonia).	Retrospective, longitudinal, secondary analysis	Staff nurses	12 intensive care units at six hospitals	n=144 ICU-month data points n=84 for staffing and resource adequacy	Staffing and resource adequacy subscale of the PES-NWI	Total temporary nursing care hours per patient day	ANOVA		NS	Occurrence of central line-associated blood stream infection (CLABSI) model 1	Logistic regression	Total temporary nursing staff, Nursing unit covariates (RN care hours, UAP care hours, nursing professional skill mix, unit size and work environment characteristics)	
								RN temporary nursing care hours per patient day	""		NS		""		OR=0.050, p<0.01
												CLABSI model 2	""	RN temporary nursing staff, Nursing unit covariates	OR=0.069, p<0.01
												Ventilator-associated pneumonia (VAP) model 1	""	Total temporary nursing staff, Nursing unit covariates	OR=0.215, p<0.01
												VAP model 2		RN temporary nursing staff, Nursing unit covariates	OR=0.166, p<0.01
Bragadóttir, Kalisch, and Tryggvadóttir [62]	Iceland	To identify the contribution of hospital, unit, staff characteristics, staffing adequacy and teamwork to missed nursing care in Iceland hospitals.	Cross-sectional	Registered nurses and practical nurses	27 medical, surgical and intensive care inpatient units in eight hospitals in Iceland	n=527	MISSCARE Survey					Missed nursing care	ANOVA		F(3,514) = 6.099, p<0.001
												Missed nursing care	Hierarchical regression	Unit type, role, age	PAS 75%; **NS** PAS 50%; NS PAS 0-25%; NS
												Missed nursing care	""	Unit type, role, age, teamwork	PAS 75%; NS PAS 50%; NS PAS 0-25%; NS
Bragadóttir, Kalisch, and Tryggvadóttir [79]	Iceland	To examine the extent to which staffing adequacy predicts nursing teamwork, controlling for demographic and background variables.	Cross-sectional	Registered nurses, practical nurses, nurse unit managers and unit secretaries	All inpatient medical, surgical and intensive care units in Iceland	n=567	Nursing Teamwork Survey	Overall teamwork	t-test		p<0.001				
								Trust	""		p<0.001				
								Team orientation	""		p<0.05				
								Backup	""		p<0.001				
								Shared mental models	""		p<0.001				
								Team leadership	""		p<0.001				
								Overall teamwork	Linear regression	Unit type, role, experience on unit, intent to leave	B=0.17, SE=0.04, β=0.16, p<0.001				

Bruyneel, Van den Heede, Diya, Aiken, and Sermeus [78]	Belgium	To study the predictive validity of the instrument used in the International Hospital Outcomes Study (IHOS) for an upcoming EU-funded project (RN4CAST), which will indicate the effect of the nursing work environment and nursing staff deployment on nurse recruitment, retention, and productivity; and on patient outcomes in 11 European countries.	Cross-sectional	Nurses working in direct patient care in general acute hospitals	Four Belgian general acute-care hospitals	n=179	Staffing and resource adequacy subscale of the NWI-R (translated in Dutch)					High job satisfaction	Univariate logsitic regression		OR 2.87, CI 1.48-5.58, p<0.01
												""	Multivariate regression modelling	Highest degree obtained (undergraduate, bachelor's in nursing/registered nurse, master's in nursing), employment (part-time, full-time), years worked in direct patient care	OR 2.81, CI 1.38-5.72, p<0.01
												Excellent nurse perceived quality of care			NS
												""	Univariate logsitic regression Multivariate regression modelling	Highest degree obtained (undergraduate, bachelor's in nursing/registered nurse, master's in nursing), employment (part-time, full-time), years worked in direct patient care	NS
												Intention to leave within a year			NS
												""	Univariate logsitic regression Multivariate regression modelling	Highest degree obtained (undergraduate, bachelor's in nursing/registered nurse, master's in nursing), employment (part-time, full-time), years worked in direct patient care	NS
												Burnout			OR 0.23, CI 0.12-0.46, p<0.001
												""	Univariate logsitic regression	Highest degree obtained (undergraduate, bachelor's in nursing/registered nurse, master's in nursing), employment (part-time,	OR 0.23, CI 0.12-0.47, p<0.001
Burmeister et al. [94]	Australia, Iceland, Italy, South Korea, Lebanon, Turkey and the United States	To determine factors associated with nurses' intent to leave their positions and absenteeism	Cross-sectional	Registered nurses	Medical-surgical, rehabilitative, intermediate, and intensive care patient units in acute care hospitals	n=6212	MISSCARE Survey					Intention to leave	Logistic regression		100% of time: OR 1.00 75% of time: OR 1.22, CI 0.97-1.53 50% of time: OR 2.15, CI 1.68-2.74 25% of time: OR 3.85, CI 2.96-5.01 0% of time: OR 2.94, CI 2.08-4.14
												""	""	Country, hospital, age, education, unit experience, full or part-time, satisfaction with job, satisfaction with nursing, satisfaction with team, sex, patient turnover	100% of time: AOR 1.00 75% of time: AOR 0.78, CI 0.57-1.07 50% of time: AOR 1.01, CI 0.71-1.43 25% of time: AOR 1.72, CI 1.17-2.54 0% of time: AOR
												Absenteeism	""		100% of time: OR 1.00 75% of time: OR 1.53, CI 1.32-1.77 50% of time: OR 1.76, CI 1.49-2.09 25% of time: OR 1.72, CI 1.40-2.10 0% of time: OR 1.83, CI 1.39-2.43
												""	""	Country, hospital, age, satisfaction with job, satisfaction with role, education, full or part-time, staffing perception, patient turnover	100% of time: AOR 1.00 75% of time: AOR 1.23, CI 1.00-1.52 50% of time: AOR 1.40, CI 1.10-1.79, 25% of time: AOR 1.46, CI 1.09-1.97 0% of time: AOR
Cho et al. [86]	Korea	To examine the relationship between nurse staffing and nurse-rated quality of nursing care, job dissatisfaction, burnout and plan to leave among ICU nurses in Korea.	Cross-sectional	Nurse managers, charge and staff nurses	ICUs of 22 general hospitals providing secondary or tertiary care located in Seoul or Kyeonggi Province	n=1365	Perception of staffing adequacy	Patients per nurse	t-test		p=0.004	Nurse rated quality of care	Multilevel logistic regression	Hospital, ICU and nurse characteristics	OR=2.97, CI 2.22 - 3.97
												Job dissatisfaction	""	""	OR=0.30, CI 0.23 - 0.40
												Burn out	""	""	OR=0.50, CI 0.34 - 0.70
												Planning to leave	""	""	OR=0.40, CI 0.28 -

Cho et al. [87]	South Korea	To examine the relationship of nurse staffing, as measured by nurse-perceived and patient-perceived staffing adequacy as well as by the patient-to-nurse-ratio, with patient experiences, and to determine the mediating effects of patient-reported missed care on the relationship between nurse staffing and patients' experiences	Cross-sectional	Nurse managers, registered nurses, and patients	Medical and surgical inpatient unit of six hospitals	n=23 nurse managers n=362 registered nurses n=208 patients	Nurse-perceived staffing adequacy	PAS patient: Nurse-perceived staffing adequacy	Descriptive		PAS patient: Missed communication Missed basic care Adverse events Communication with nurses Overall hospital rating PAS nurse: Missed communication Missed basic care Adverse events Communication with nurses Overall hospital rating Patient, PAS very sufficient: Missed communication Missed basic care Adverse events Communication with nurses Overall hospital rating (patient) Adverse events, adding - missed communication - missed basic care Communication with nurses, adding - missed communication - missed basic care Overall hospital rating, adding - missed communication - missed basic care	Descriptive "" "" "" "" Lineair mixed model "" Generalized lineair mixed model "" "" Lineair mixed model "" Generalized lineair mixed model "" "" "" "" "" "" "" ""		RC = –0.58, CI -1.06, - -0.06, p = 0.029 NS NS NS NS RC -0.69, CI -1.02- -0.35, p<0.001 RC -0.82, CI -1.32 - -0.31, p<0.01 OR 0.27, CI 0.09 - 0.86, p<0.05 OR 5.81, CI 2.04 - 13.2, p<0.001 NS NS OR 2.75, p<0.05 OR 3.70, p<0.01 OR 4.87, p<0.01
Choi and Staggs [24]	U.S.	To examine correlations among six nurse staffing measures and to compare their explanatory power in relation to unit-acquired pressure ulcers (UAPUs)	Descriptive, correlational	Registered nurses	US acute care hospitals, including unit types critical care, step-down, medical, surgical, and combined medical–surgical	n=2397 nursing units	Staffing and resource adequacy subscale of the PES-NWI	RN HPPD Total nursing HPPD RN skill mix RN-reported number of assigned patients Non-RN HPPD	Pearson correlation	r=0.228, p<0.001 r=0.234, p<0.001 r=0.158, p<0.001 r=-0.300, p<0.001 NS	Unit-acquired pressure ulcers Unit-acquired pressure ulcers Unit-acquired pressure ulcers	Logistic regression "" ""	Hospital characteristics (size, teaching status, and Magnet status) and unit type Hospital characteristics (size, teaching status, and Magnet status) and unit type, total nursing HPPD, RN skill mix Hospital characteristics (size, teaching status, and Magnet status) and unit type, RN HPPD,	OR=0.782, CI 0.647-0.944, p<0.05 OR=0.787, CI 0.650 - 0.953, p<0.05 OR=0.783, CI 0.647 - 0.948, p<0.05
De Groot, Burke, and George [47]	U.S.	To create a budget-neutral compensation distinction for different competencies and educational levels, evaluate the effect of the new salaried model on unit costs and pay, determine the effect of the DPS model on job satisfaction, organizational commitment, and anticipated turnover, and assess the impact of professional commitment, professional practice climate, perception of staffing adequacy, and dispositional optimism on job satisfaction, organizational commitment, and anticipated turnover.	quasi-experimental, non-equivalent control group design	Registered nurses	St. Luke's Medical Center, a not-for-profit, community hospital that provides tertiary care to cardiac and oncology patients	n=232 nurses	Revised version of the Head nurse questionnaire	Life orientation Professional commitment Professional practice climate Organizational commitment	Correlation	r=0.35, p<0.001 r=0.24, p<0.001 r=0,23, p<0.001 r=0,17, p<0.05	Job satisfaction index: Work Supervision Pay Promotion Coworker Perceptions of care quality Anticipated turnover	Correlation		r=0.23, p<0.001 r=0.20, p<0.05 r=0.20, p<0.01 r=0.16, p<0.05 r=0.22, p<0.001 r=0.93, p<0.001 r=0.17, p<0.05
Desmedt, De Geest, Schubert, Schwendimann, and Ausserhofer [63]	Switzerland	To describe the quality of the nurse work environment in 35 Swiss acute care hospitals and to benchmark findings based on international Magnet hospital research.	Multi method design	Registered nurses	35 Swiss acute-care hospitals	Swiss hospitals n=1633 Magnet studies n=755-1610 Nonmagnet studies n=46-72.889	Staffing and resource adequacy subscale of the PES-NWI	Setting (hospital) Setting (magnet or nonmagnet)	ANOVA Descriptive	F(34,1593) = 11.94, p<0.001 Mean (standard deviation) magnet 2.81 (0.06), nonmagnet 2.40 (0.19)				
Ducharme, Bernhardt, Padula, and Adams [35]	U.S.	To examine relationships between leaders' perceived influence over professional practice environments (PPEs) and clinical nurses' reported engagement in essential professional nursing practice.	nonexperimental method of prediction	Clinical nurses	a 247-bed acute care Magnet hospital	n=30 nurse leaders n=166 clinical nurses	PAS scale	Nurse leaders perceived themselves to be more influential, domain: Collegial administrative approach Authority Access to resources Leadership expectations of staff Internal strategy and resolve Status	General linear model "" "" "" "" ""	Slope 3.758, CI 0.849-6.666, p=0.014 Slope 5.478, CI 2.571-8.384 . p=0.001 Slope 4.491, CI 1.601-7.381, p=0 .004 Slope 3.790, CI 0.211-7.368, p=0.014 p=0.308 p=0.127	Perception quality nursing care	Logistic regression		p<0.0001

Escobar-Aguilar et al. [84]	Spain	To analyze the relationship between the work environment and burnout of nurses and the quality of care for patient safety at the Spanish National Health System Hospitals included in SENECA and RN4CAST studies.	Secondary analysis	Staff nurses	24 hospitals of more than 150 beds	n= 984 patient records n= 1469 patient surveys n= 1886 professional surveys from SENECA project, n=2139 nurse' surveys from	Staffing and resource adequacy subscale of the PES-NWI					Pain	Pearson's correlation		r = −0.435, p = 0.03
Fuentelsaz-Gallego, Moreno-Casbas, Gomez-Garcia, and Gonzalez-Maria [65]	Spain	To know if there are differences between the critical care units and the medical-surgical care units regarding the perception of the nurses working in National Health System hospitals about their work environment, burnout level and job satisfaction	Cross-sectional	Nurses	Medical-surgical, and critical care units from 59 Spanish hospitals with more than 150 beds	n=7539	Staffing and resource adequacy subscale of the PES-NWI (Spanish version)	Setting (medical-surgical or critical care)	t-test		p<0.001				
Gunnarsdóttir, Clarke, Rafferty, and Nutbeam [66]	Iceland	To investigate aspects of nurses' work environments linked with job outcomes and assessments of quality of care in an Icelandic hospital.	Cross-sectional	Nurses	a 900-bed university hospital, the largest tertiary health centre in Iceland	n=695	Staffing and resource adequacy subscale of the NWI-R (Q1-Q4) (Icelandic version)					Satisfaction with current job	Logistic regression	Nurse characteristics and specialities	OR 2.23, CI 1.63-3.05, p<0.001
												Satisfaction with current job	""	Nurse characteristics and specialities, nurse-physician relations, unit-level support, philosophy of practice, hospital-level support	OR 1.47, CI 1.02-2.10, p<0.05
												Emotional exhaustion	Generalized lineair modelling	Nurse characteristics and specialities	β -3.95, p<0.001
												Emotional exhaustion	""	Nurse characteristics and specialities, nurse-physician relations, unit-level support, philosophy of practice, hospital-level support	β -3.45, p<0.001
												Nurse-rated quality of patient care	Logistic regression	Nurse characteristics and specialities	OR 2.16, CI 1.53-3.04, p<0.001
												Nurse-rated quality of patient care	""	Nurse characteristics and specialities, nurse-physician relations, unit-level support,	NS
Hegney et al. [91]	Australia	To explore nurses' perceptions of factors affecting workloads and their impact on patient care	Exploratory, descriptive, cross-sectional	Membership of the Queensland Nurses and Midwives Union employed as a regulated or un-regulated nurse and/or midwife	Public (acute hospital, community, and other public health), private (acute hospital, domiciliary, community, and other private) and aged care (public and private) sectors	n=2397	Workload perceptions survey	Sector	Chi-square and Fisher exact test		Number: $\chi 2$ = 93.60, df = 12, p < 0.001 Skill mix: $\chi 2$ = 78,01, df = 12, p < 0.001				
Heinen et al. [76]	Belgium, Finland, Germany, Ireland, the Netherlands, Norway, Poland, Spain, Switzerland and the United	To determine factors associated with nurses' intention to leave the profession across European countries.	Cross-sectional	Nurses	2025 surgical and medical units from 385 hospitals in ten European countries	n=23159	Staffing and resource adequacy subscale of the PES-NWI					Intention to leave nursing (Germany)	Multilevel anaysis	Five subscales of the PES-NWI, Patient to nurse staffing ratio on unit level, burnout, quality of care, safety of care, hospital size, age, gender, working full-time or part-time, educational level, country and hospital-unit	OR=0.66, CI 0.47-0.92, p<0.05
												Intention to leave nursing (other countries)	""		NS
Jafree, Zakar, Zakar, and Fischer [88]	Pakistan	To investigate the association between organizational culture and the culture of error reporting, as perceived by nurses.	Cross-sectional data, mixed methodology	Registered female nurses, including nurse supervisors, nurse ward heads, nurse instructors, staff nurses and nurse students	Two tertiary care public sector hospitals from Lahore	n=309	Staffing and resource adequacy subscale of the PES-NWI	Error reporting culture	Pearson's correlation		r=0.630, p<0.01				
								Governance	""		r=0.591, p<0.01				
								Nurse participation in hospital affairs	""		r=0.715, p<0.01				
								Nurse manager ability, leadership and support	""		r=0.676, p<0.01				
								Nurse foundations for quality care	""		r=0.614, p<0.01				
								Nurse coworker relations	""		r=0.710, p<0.01				
								Higher error reporting culture	Logistic regression		OR 7.83, CI 4.64-13.22, p<0.001				
								Higher error reporting culture	Mulitvariable regression	Nurse age, nurse literacy, nurse monthly income	AOR 7.86, CI 4.18-14.76, p<0.001				
Jolivet et al. [67]	France	To test the hypothesis that some organisational constraints at the work-unit level may be related to depressive symptoms in hospital workers, either directly or through individual perceptions of effortereward imbalance (ERI).	Cross-sectional results of a longitudinal survey	Female registered nurses and nursing aids	Medicine (including geriatric, psychiatric and paediatric units), surgery, and emergency or intensive care units of teaching hospitals	n=3316	Staffing inadequacy to perform duties subscale of the Nursing Work Index - Extended Organisation	Occupation (nursing aid or RN)	t-test		p<0.001	Depressive symptoms	Multilevel anaysis		**RN OR=0.20, 0.05<p<0.01** **NA OR=0.22, 0.05<p<0.01**
												Depressive symptoms	""	NWI-EO, age, profession, speciality of the work unit, work schedule	NS
												Depressive symptoms	""	"", ERI model	OR -0.16, 0.05<p<0.01
												Effort-reward imbalance	""	NWI-EO	OR=0.98, p<0.001
												Effort-reward imbalance	""	NWI-EO, age, profession, speciality of the work unit, work week, work schedule	OR=1.38, p<0.001

Kalisch and Lee [37]	U.S.	To examine the relationship among hospital, patient units, and staff characteristics and nursing teamwork	Cross-sectional	Registered nurses, licensed practical nurse, nursing assistants, nursing leaders, and unit secretaries	95 patient care units in six hospitals in Michigan and California	n= 3769	Nursing Teamwork Survey	Teamwork	Linear regression	Hospital effects, nursing role, Full-time equivalency, shift worked, years of experience in the unit, absenteeism, unit type	β=0.13, t=10.02, p=0.00				
								Trust	""	""	β=0.17, p<0.01				
								Team orientation	""	""	β=0.13, p<0.01				
								Backup	""	""	β=0.21, p<0.01				
								Shared mental models (SMMs)	""	""	β=0.15, p<0.01				
								Team leadership scores	""	""	β=0.19, p<0.01				
Kalisch, Lee, and Rochman [39]	U.S.	To explore the influence of unit characteristics, staff characteristics and teamwork on job satisfaction with current position and occupation	Cross-sectional	Registered nurses, licensed practical nurses, assistive personnel and unit secretaries	Four Midwestern hospitals, one Southern hospital and 80 different patient care units	n=3675	Nursing Teamwork Survey					Satisfaction with the current position	Lineair regression		p<0.001
												Satisfaction with the occupation	""		p<0.001
												Satisfaction with the current position	Hierarchical regression	Hospital effects, type of unit, age, job title, years of experience in the current working unit, number of patients cared for, hospital	β=0.36, p<0.001
												Satisfaction with the current position	""	Hospital effects, type of unit, age, job title, years of experience in the current working unit, number of patients cared for, hospital, teamwork	β =0.30, p<0.001
												Satisfaction with the occupation	Logistic regression	Hospital effects, teamwork, gender, age, education, job title, years of experience on the current working unit, number of patients	OR=1.553, p=0.000
Kalisch, Tschanen, and Lee [52]	U.S.	To explore the impact of missed nursing care (required patient care that is omitted) on job satisfaction of nursing personnel.	Cross-sectional	Registered nurses and nursing assistants	Ten midwestern hospitals	n=4074	MISSCARE Survey					Job satisfaction	Linear regression	Hospital effects, missed care, age, type of unit, hospital	β=0.326, p<0.001
												Occupation dissatisfaction	Logistic regression	Hospital effects, gender, job title, education, hospital	OR = 1.49, CI 1.35-1.64
Kalisch, Tschannen, Lee, and Friese [40]	U.S.	To investigate the extent and type of nursing care missed and the reasons for missed care.	Cross-sectional	Registered nurses and nursing assistants	Acute care hospitals	n = 4086	MISSCARE Survey					Missed nursing care	Multiple regression	Hospital effects, constant, seks, age, job title, shift worked, years of experience in the role, absenteeism, number of patients cared for	β=-0.104, p=0.000
Kalisch, Friese, Choi & Rochman [59]	U.S.	To examine empirically the correlations among 3 measures of nurse staffing (nurse-reported patient workload on the last shift, nurse-perceived staffing adequacy, and hours of care per patient day) and to identify characteristics associated with these measures	Cross-sectional, correlational	Registered nurses	Medical-surgical, rehabilitation, and intermediate in 11 acute care hospitals	n=92 patient care units	MISSCARE Survey	Nurse-reported patient load, last shift	Pearson's correlation		r=-0.384, p<0.01				
								Unexpected rise in patient volume and/or acuity	""		r=-0.288, p<0.01				
								Inadequate number of assistive personnel	""		r=-0.426, p<0.01				
								HPPD	""		NS				
								Case mix index	""		NS				
								HPPD	Multivariable lineair regression	Hospital effects	r^2=0.105, p=0.044				
								HPPD, CMI	""	""	r^2=0.041, p=0.242				
								HPPD, CMI, Nursing education≥BSN	""	""	r^2=0.036, p=0.275				
								HPPD, CMI, Nursing education≥BSN,	""	""	r^2=0.338, p=0.000				
Kim et al. [53]	U.S.	To examine association between perceived inadequate staffing and musculoskeletal pain and to evaluate the role of work-related psychosocial and physical work factors in the association among hospital patient care workers	Cross-sectional	Registered nurses, licensed practical nurses, and patient care/nursing assistants with direct patient care responsibilities	Two large academic hospitals in the metropolitan Boston area	n=1339	Staffing and resource adequacy subscale of the NWI-R (Q1-Q4) Response set is frequency on a 5 point scale (always - never)					Neck/Shoulder pain	Multilevel logistic regression		NS
												Arm pain	""		NS
												Low back pain	""		OR 1.49, CI 1.04 - 2.13, p<0.05
												Lower extremiity	""		NS
												Any musculoskeletal pain	""		NS
												Number of area in pain	""		OR 1.42, CI 1.02 - 1.99, p<0.05
												Neck/Shoulder pain	""	Work characteristics (age, race, gender, job title, having a second job or not, day shift or not, worked hours per week, and BMI)	NS
												Arm pain	""	"	NS
												Low back pain	""	"	OR 1.50, CI 1.06 - 2.14, p<0.05
												Lower extremiity	""	""	NS
												Any musculoskeletal pain	""	""	NS
												Number of area in pain	""	""	OR 1.42, CI 1.01 - [illegible]
												Neck/Shoulder pain	""	Work characteristics, physical work factors including use of a lifting device, and the amount of time on the job for each of five physical activities on the job (i.e. sitting, standing, walking, lifting and carrying, pushing and pulling	NS
												Arm pain	""	""	NS
												Low back pain	""	""	OR: 1.50, CI: 1.03 - 2.19, p<0.05
												Lower extremeniity	""	NS	NS
												Any musculoskeletal pain	""	NS	NS
												Number of area in pain	""	NS	NS
												Neck/Shoulder pain	""	Work characteristics, work-related psychosocial factors (i.e. job demands, job control, supervisor support, co-worker support)	NS
												Arm pain	""	""	NS
												Low back pain	""	""	NS
												Lower extremeniity	""	""	NS
												Any musculoskeletal pain	""	""	NS

Leineweber et al. [68]	Sweden	To investigate associations between nurse work practice environment measured at department level and individual level work-family conflict on burnout, measured as emotional exhaustion, depersonalization and personal accomplishment among Swedish RNs.	Cross-sectional	Registered nurses	369 departments in 53 hospitals	n=8620	Staffing and resource adequacy subscale of the PES-NWI				Risk for emotional exhaustion	Multilevel logistic regression	Department level variables (NWI-PES variables)	OR=0.724 CI 0.684-0.766, p<0.001
											""	""	Department level variables and individual variables (age, sex, baccalaureate degree in nursing, years of experience as RN, work-family conflict)	OR=0.733 CI 0.693-0.775, p<0.001
											Depersonalization	""	Department level variables	OR=0.856 CI 0.782-0.937, p<0.05
											""	""	Department level variables and individual variables	OR=0.864 CI 0.788-0.948, p<0.05
											Personal accomplishment	""	Department level variables	OR=0.883 CI 0.882-0.950, p<0.001
											""	""	Department level variables and individual variables	OR=0.888 CI 0.824-0.957, p<0.05
Lin, Chiang, and Chen [89]	Taiwan	To compare the differences between nurses with intent to leave and those with intent to stay in employment and nursing regarding their perceptions of the practice environment in Taiwan.	Cross-sectional	Nurses	Four hospitals in southern Taiwan: one medical center, one regional hospital, and two local hospitals	n=524	Staffing and resource adequacy subscale of the PES-NWI (Chinese version)				Intention to stay in employment	t-test		t=4.4, p<0.001
											Intent to leave and stay in nursing	""		t=5.9, p<0.001
Louch, O'Hara, Gardner and O'Connor [77]	U.K.	To examine nurses' daily perceptions of staffing and patient safety and to explore the potential role of personality factors as moderators of daily level associations	Longitudinal	Staff nurses	Acute NHS Trusts	n= 324 diary days (for 83 participants)	Hospital Survey on Patient Safety Culture				Perceptions of patient safety	Hierarchical linear model		p<0.001
											Safe practitioner	""		p<0.001
											Workplace cognitive failure	""		p<0.001
											Safe practitioner (at high level of agreeableness)	""		β=0.139, p<0.001
											Safe practitioner (at low level of agreeableness)	""		β=0.245, p<0.001
											Perceptions of patient safety (at high level of emotional stability)	""		β=0.666, p<0.001
											Perceptions of patient safety (at low level of emotional stability)	""		β=0.409, p<0.001
											Safe practitioner (at high level of conscientiousness	""		β=0.151, p<.001
											Safe practitioner (at low level of	""		β=0.226, p<0.001
Mark, Salyer and Harless [58]	U.S.	To examine the impact of hospital characteristics, nursing unit characteristics, nurse characteristics, and patient characteristics on nurses' perceptions of staffing adequacy.	Secondary analysis, cross-sectional and longitudinal	Registered nurses	60 hospitals in the Southeastern United States	Nurses n=1583 (time 1) n=1023 (time 2) Patient n=1231 (time 1) n=1235 (time 2)	Perceptions of adequacy of staffing	Time 1: Number of high technology services Case mix index Skill mix Workload Unit size Time 2: Number of high technology services Number of beds on the unit	Correlation	r=0.216, p=0.018 r=0.206, p=0.024 r=0.204, p=0.025 r=-0.221, p=0.015 r=-0.231, p=0.011 r=0.278,p=0.002 r=-0.309, p=0.001				
								Model 1: cross-sectional Hospital (case mix index, case mix index squared), hospital size ("high tech" services, teaching status, life cycle - grower, life cycle - decliner, life cycle - unstable), unit (total staff, skill mix, workload, number of beds, support services, patient technology, education, life cycle - grower, life cycle - decliner, life cycle - unstable), nurse, (experience, age), patient (age)	Regression model	r^2=**0,348**, p<.000				
								Model 2: delayed effects Hospital (case mix index, case mix index squared), hospital size ("high tech" services, teaching status, life cycle - grower, life cycle - decliner, life cycle - unstable), unit (total staff, skill mix, workload, number of beds, support services, patient technology, education, life cycle - grower, life cycle - decliner, life cycle - unstable), nurse, (experience,	""	r^2=0,325, p<.000				
								Model 3: dynamic model Hospital (case mix index, case mix index squared), hospital size ("high tech" services, teaching status, life cycle - grower, life cycle - decliner, life cycle - unstable), unit (total staff, skill mix, workload, number of beds, support services, patient technology, education, life cycle - grower, life cycle - decliner, life cycle - unstable, lagged perceptions), nurse, (experience, age), patient (age)	""	r^2=0.512, p<0.000				
Nelson-Brantley, Park, Bergquist-Beringer [42]	U.S.	To examine characteristics of the nursing practice environment associated with lower RN turnover	Secondary analysis	Staff nurses	162 acute care hospitals in the United States	n=1002 nursing units	Staffing and resource adequacy subscale of the PES-NWI				RN-turnover	Lineair regression	Practice environment characteristics, magnet status, hospital size, teaching status, hospital ownership,CMI, unit type, RN age, RN tenure, and RN education levels	RC=-0.16, CI -0.23 -0.09, p<0.01

O'Brien-Pallas et al. [45]	Canada	To determine the work environment and nurse staffing variables at the nursing-unit level that influence system outcomes, and identify optimal staffing levels for achieving positive system outcomes.	Prospective, correlational	Staff nurses	Cardiac and cardiovascular units of six participating hospitals in the Canadian provinces of Ontario and New Brunswick	n=1198 patients and 555 nurses	Staffing and resource adequacy subscale of the NWI-R (Q1-Q4)				Absenteeism	Hierarchical lineair regression	Nurse level (years of work experience in nursing, education, full-time employment, clinical expertise, overtime hours, unit instability, shift change, effort-reward imbalance, emotional exhaustion, physical health, mental health, nurse-patient ratio), patient level (resource intensity weight, number of nursing diagnoses, pre-operative clinics, medical consequences, physical health at admission, mental health at admission), unit level (step-down unit, skill mix, average number of patient care interventions omitted or delayed, average autonomy score, staffing utilization)	β=-0.26, OR=0.77, p≤0.05
											Patient care interventions omitted or delayed	""	""	β=-0.48, OR=0.6, p≤0.05
											Therapeutic interventions omitted	""	""	β=-0.44, OR=0.6, p≤0.05
Pineau Stam, Laschinger, Regan, and Wong [46]	Canada	To examine the influence of new graduate nurses' personal resources (psychological capital) and access to structural resources (empowerment and staffing) on their job satisfaction.	Secondary analysis of data from a longitudinal study	New graduate nurses (NGNs) who had been working <3 years in the profession	Specialty unit medical-surgical, critical care, mental health, maternal child, community/public health and long term care	n=205	New graduates' perception of adequate staffing	Psychological capital	Correlation	r=0.12, p<0.05	Job satisfaction	Correlation		r=0.29, p<0.01
								Structural empowerment	Correlation	r=0.16, p<0.01	Job satisfaction	Hierarchical multiple regression	Psychological capital, structural empowerment	β=0.19, p<0.001
Rauhala and Fagerström [69]	Finland	To identify the contribution of the information about non-patient factors to the RAFAELA PCS in routine use and to identify how strong an association there is between NCI and PAONCIL in routine use, compared with the association between non-patient factors and PAONCIL	non-experimental, retrospective	Nurses	Somatic wards of a secondary healthcare hospital on the west coast of Finland	n=4870	PAONCIL	Managerial planning and organization of the work	Pearson's correlation	p=0.392				
								Planning of the work rota		p=0.064				
								Substitute situation		p=0.054				
								Meetings, training		r=0.160, p<0.001				
								Students		p=0.294				
								Co-operation with doctors		r=0.109, p=0.011				
								Co-operation/coordination with other staff		r=0.097, p=0.024				
								Co-operation within the organization		r=0.165, p<0.001				
								Co-operation in your own group		p=0.308				
								Own work ability		p=0.09				
								Mental stress		r=0.19, p<0.001				
								Other factors		r=0.348, p<0.001				
								OPCQ (22 wards)	Lineair regression	r^2 0.000 - 0.648, 12/22 wards p<0.001, 18/22 wards p<0.05, median r^2=0.450				
								OPCQ and 6 non-patient factors	""	r^2 0.249 - 0.817, 13/20 wards p<0.001, 20/20 wards p<0.05.				
Reeder, Burleson, and Garrison [54]	U.S.	To measure physician and nursing staff subjective assessments of ED overcrowding, to compare the agreement of this assessment between physician and nursing staff, to use data to calculate proposed READI scores to assess ED demand, and to compare the READI scores with staff perceptions to evaluate the agreement of these scores and the ability to predict resource demands that exceed available capacity	Prospective	Physicians and charge nurses of the ED	Emergency department of the Pitt County Memorial Hospital, a tertiary referral academic medical center in rural eastern North Carolina	n=221	Assessment of real time demand for the ED	Crowding scores (READI)	Kappa	NS				
Roche and Duffield [92]	Australia	To examine the differences between characteristics of the work environment of nurses working in mental health and general acute inpatient nursing settings.	Secondary analysis	RNs, enrolled nurses (similar to Licensed Vocational Nurse or Licensed Practical Nurse in the United States), and assistants in nursing (similar to patient care assistants)	24 public acute general hospitals across two Australian states	n=2556	Staffing and resource adequacy subscale of the PES-NWI	Setting (mental health, medical or surgical)	t-test	t=4.063, p≤0.01				
Roche, Duffield, and White [93]	Australia	To test a model of hypothesized relationships between aspects of the practice environment and the therapeutic commitment of nurses working in mental health, and to identify those characteristics of the practice environment that impact most significantly on therapeutic	Model testing, cross-sectional	Registered nurses enrolled nurses	Six mental health wards attached to five public general acute hospitals in metropolitan areas of New South Wales Australia	n=149	Staffing and resource adequacy subscale of the PES-NWI	Role support	Partial least squares path modeling	NS				
Rochon, Heale, Hunt, and Parent [57]	Canada	To determine the perceived level of nursing teamwork by registrered nurses, registrered practical nurses, personal support workers and unit clerks working on patient care teams in one acute care hospital in northern Ontario, Canada, and to determine if a relationship exists between the staff scores on the Nursing Teamwork Survey and participant perception of	Descriptive, cross-sectional	Registered nurses, registrered practical nurses, personal support workers, unit clerks, nurse clinicians and managers	One acute care hospital in northern Ontario	n=200	Nursing Teamwork Survey	Nursing teamwork	Not reported	p=0.258				

Sasso et al. [80]	Italy	To investigate the push and pull factors of nurses' intention to leave the profession in Italy.	Cross-sectional	Staff nurses	292 units of general and surgery in 40 acute hospitals	n=3667	Staffing and resource adequacy subscale of the PES-NWI					Intention to leave	Logistic regression		OR=0.347, CI 0.309-0.39
												Intention to leave	""	Gender, setting, nurse-physician relationship, leadership, quality of care, participation in hospital affairs, emotional exhaustion, depersonalisation, personal accomplishment, satisfcation with current job	NS
Schubert, Glass Clarke, Schaffert-Witvliet, and De Geest [70]	Switzerland	To examine the validity and reliability of the newly developed BERNCA instrument.	Psychometric analysis	Nurses	Five Swiss acute care hospitals	n=957	Nursing resources and autonomy subscale of the NWI-R, items not reported					Implicit rationing of nursing care	Spearman correlation		r=-0.46, p=0.01
Sharma et al. [81]	Switzerland	To assess nurse-reported organizational readiness for implementing change in acute care hospitals.	Secondary analysis	Registered Nurses	124 medical, surgical and medical–surgical (mixed) units in 23 acute care hospitals across Switzerland's	n=1833	Staffing and resource adequacy subscale of the PES-NWI	Change commitment	Linear regression	Individual factors (education level, nursing work experience), work environment (nursing foundation for quality of care, supportive leadership, standardized staffing), organizational characteristics (unit type)	NS				
								Change efficacy	""	""	β=0.125, CI 0.0008-0.243, SE=0,06, p=0.037				
Smeds Alenius, Tishelman, Runesdotter, and Lindqvist [71]	Sweden	To investigate how RNs' assessments of the safety of patient care at their workplace, the nursing work environment, the patient safety culture, as well as their level of involvement in direct patient care, and length of work experience as an RN relate to, and interact with, RNs' global assessment of patient safety in acute-care hospitals in Sweden	Secondary analysis, cross-sectional	Registered nurses	Acute care hospitals	n=9236	Staffing and resource adequacy subscale of the PES-NWI					RN-reported patient safety	Spearman's correlation		r=0.27-0.43 for staffing items, p<0.0001
												RN-reported patient safety	Regression		OR=5.44 CI 5.06-5.85
												RN-reported patient safety	Regression	Gender, education, work environment, RNs' level of involvement in direct patient care, patient safety culture, work experience	OR=2.74 CI 2.52-2.97
Spence et al. [90]	Australia	To determine if a suitable method of measuring nursing workload could be developed in neonatal intensive care units (NICUs).	Descriptive, cross-sectional	Front-line clinical nurses	Two NICUs, one in a perinatal centre (perinatal) and one in a predominately neonatal surgical unit in a children's hospital (children's).	n=12649 acuity tools n=6727 PAONCIL	PAONCIL	<5 year work experience	Regression		1<OR>10				
								Use of causal staff	""		""				
								Mental stress	""		""				
								Own work capacity	""		""				
								Presence of students (Perinatal)	""		""				
								Meetings during shift (Children's)	""		""				
								Use of relief staff	""		""				
								Planning of shift schedule	""		""				
								Organisation of manager	""		""				
								Cooperation with peer nurses	""		""				
								Cooperation with docters	""		""				
								Presence of students (Children's)	""		NS				
								Meetings during shift (Perinatal)	""		NS				
Spence Laschinger [56]	Canada	To test an exploratory model of the antecedents and consequences of nurses' perceptions of respect in hospitals.	Cross-sectional	Staff nurses	Ontario urban teaching hospitals	n=285	Adequate staff for care	Nurses' feelings of respect	Pearson's correlation		r=0.30				
Stalpers, Van Der Linden, Kaljouw, and Schuurmans [72]	The Netherlands	To assess job satisfaction and nurse-perceived quality of care in a sample of Dutch ICUs and to determine work environment characteristics that, according to ICU nurses are associated with overall job satisfaction and with perceived quality of care, after controlling for the effects of overall job satisfaction	Cross-sectional	Nurses working in the ICUs	Three Dutch intensive care units based in teaching hospitals (level III)	n=123	PAS scale (Dutch version)					Overall job satisfaction	Hierarchical regression		β=0.42, p<0.001
												Nurse perceived quality of care	""	Overall job satisfaction	β=0.34, p<0.001
												Nurse perceived quality of care	""	"", nurse characteristics	β=0.35, p<0.001
Trivedi and Hancock [43]	U.S.	To measure levels of need for nursing care based on the perceptions of head nurses.	Cross-sectional	Head nurses	Five units of a 300-bed community general short-term hospital in the Midwest: medical-surgical (60 beds), pediatric (28 beds), surgical (68 beds), ICU/CCU (16 beds), and medical (86	The head nurse of each of the five study units completed the questionnaire for the seven-week period	Head nurse questionnaire	Nursing hours	Stepwise regression		p=0.05				
								Census	""		p=0.05				
								Patient classification	""		NS				
								New admissions	""		NS				
								Transfers	""		NS				
								Discharges	""		NS				
								Postoperative patients	""		NS				
								Specialized nursing procedures	""						
								Patient classification (pediatric and	""		p=0.05				
Tvedt, Sjetne, Helgeland, and Bukholm [73]	Norway	To determine the correlations between hospital-aggregated, nurse-assessed quality and safety, and estimated probabilities for 30-day survival in and out of hospital.	Observational, ecological	Nurses	30 Norwegian hospitals with more than 85 beds	n=3556	Staffing and resource adequacy subscale of the NWI-R (Q1, Q2, Q4)					Overall survival	Stepwise regression	Patient safety management	RC=0.09, p=0.002
												Quality of nursing	""		0.44, p<0.001
												Patient safety	""	Patient safety management	0.24, p=0.005
												Survival after acute myocardial infarction	""	Local university hospital, regional university hospital	NS

Tvedt, Sjetne, Helgeland, Lawer, and Bukholm [74]	Norway	To examine the associations between nurse-reported characteristics of the work environment and incidence of surgical site infections after total hip arthroplasty.	Cross-sectional	Nurses	16 Norwegian hospitals with 20 wards specialized in orthopaedic care	n=320 nurses n=2885 patients	Staffing and resource adequacy subscale of the PES-NWI (Q1, Q2, Q4)						Surgical site infection after total hip arthroplasty	Univariate mixed-effects logistic regression		OR=0.97, CI 0.95, 0.99, p=0.009
													""	Mixed-effects logistic regression model		OR=1.00, CI 0.96, 1.02, NS
													""	Mixed-effects logistic regression model	Interaction: elective procedure × staffing adequacy	OR=0.94, CI 0.91, 0.97, p=0.001
													"" for non-elective procedures	""		NS
Weigl, Schmuck, Heiden, Angerer, and Müller [82]	Germany	To determine individual and shared associations between understaffing and psychosocial work characteristics and cardiovascular health outcomes in hospital nurses.	Cross-sectional	Nursing professionals	Intensive care units, operating rooms, anesthesia units, three inpatient wards, and the intra-hospital patient transportation services of an academic hospital	n=273	Perceptions of undertaffing						Blood pressure	Regression		NS
													Total cholestrol level	""		NS
													LDL cholestrol level	""		NS
													Blood pressure	""		OR=1.60, CI 1.05-2.43
													Total cholestrol level	""		OR=1.42, CI 1.04-1.95
													LDL cholestrol level	""		NS
Williams and Murphy [44]	U.S.	To determine to what extent associations existed between objective measures of staffing adequacy, the patient care services provided under various staffing conditions, and charge nurses' subjective judgements of both these elements	Multi method design	Charge nurses	Four nursing units in a 316 bed private hospital and two nursing units in a 260 bed county hospital located in inland northern California.	n=204 shifts n=155 patients (waiting time and drug administration)	Unit staffing/care evaluation form	Setting (County medical, county surgical, private medical, private surgical, private coronary care, private post-coronary care)	Descriptive		County medical 19/30 adequate, county surgical 20/30 adequate, private medical 13/30 adequate, private surgical 17/30 adequate, private coronary care 30/42 adequate, private post-coronary care 33/42 adequate 2/6 units p<0.05, 4/6 units NS 1/6 units p<0.05, 5/6 units NS 3/16 shifts p<0.05, 13/16 shifts NS 5/16 shifts p<0.05. 11/16 shifts NS 5/16 shifts p<0.05, 11/16 shifts NS	Six units combined: Patient service (10 categories)	Corralation		p<0.0005 (for all categories)
													Six units:	""		
													Basis hygiene	""		5/6 units p<0.05, 1/6 units NS
													Basic feeding and toileting	""		4/6 units p<0.05, 2/6 units NS
													Mobility	""		5/6 units p<0.05, 1/6 units NS
													Medications, IV's	""		2/6 units p<0.05, 4/6 units
													Communication with patient/family	""		6/6 units p<0.05
													Special procedures			
								Census	Correlation					""		4/6 units p<0.05, 2/6 units NS
													Observation of patient			
								Number of maximum care patients	""				Vital signs	""		6/6 units p<0.05
														""		3/6 units p<0.05, 3/6 units NS
								Staff hours available	""				Rounds with or assist MD	""		5/6 units p<0.05, 1/6 units
													Implementation of new orders without undue delay	""		4/6 units p<0.05, 2/6 units NS
								Staff hours available per patient	""							
								Staff hours available per maximum care patient	""							
													CCU/PCCU			
													Signal response: minutes	""		1/2 units p<0.05, 1/2 units NS
													Filling of request: minutes	""		1/2 units p<0.05, 1/2 units NS
													Number of analgestics	""		1/2 units p<0.05, 1/2 units
													Number of tranquilizers	""		NS
													Number of [illegible]	""		NS
Zander, Dobler, and Busse [75]	Germany	To analyze whether the DRG implementation in German acute hospitals (as well as other changes over the 10-year period) had measurable effects on (1) the nurse work environment (including e.g. an adequate number of nursing staff to provide quality patient care), (2) quality of patient care and safety (incl. confidence into patients' ability to manage care when discharged), and (3) whether the effects from (1) and (2) – if any – impacted on the nurses themselves (satisfaction with their current job and their choice of profession as well as emotional exhaustion).	pre-post comparison with two cross-sectional sets	Nurses	1998/1999 29 acute care hospitals, 2009/2010 49 acute care hospitals	1998/1999 n=2681, 2009/2010 n=1511	Staffing items of the PES-NWI (items not reported)	Wave	Logistic regression	Female, professional experience>10years, part time, general medical ward, mixed ward, age	OR=0.405, 95%CI 0.339-0.484, p<0.001	1998/1999:	Logistic regression		OR=4.118, CI 2.822-6.009, p<0.001
								1998/1999:					Quality of care on wards			OR=2.081, CI 1.624-2.666, p<0.001
								Female			OR=-.709. CI -.521-0.966, p=0.029		Quality improved within the last year			OR=4.726, CI 3.390-6.590, p<0.001
								General medical ward			OR=1.837. CI1.464-2.306, p<0.001		Patient safety on ward			OR=0.255, CI 0.199-0.328, p<0.001
								Mixed ward			OR=1.640. CI 1.164-2.311, p=0.005		Lack of psychosocial attention			NS
								Professional experience>10years			NS		Patients' ability to manage care after discharge			
								Part time			NS					
								Age			NS					
								2009/2010			NS					
								Female			NS					
								Professional experience>10years			NS					
								Part time			NS					
								General medical ward								
								Mixed ward								

2009/2010:	
Quality of care on wards	OR=3.504, 95%CI 2.360-5.202, p<0.001
Quality improved within the last year	OR=2.470, 95%CI 1.811-3.368, p<0.001
Lack of psychosocial attention	OR=0.336, 95%CI 0.245-0.459, p<0.001
Patients' ability to manage care after discharge	OR=2.058, 95%CI 1.443-2.935, p<0.001
Patient safety on wards	NS
1998/1999:	
Satisfaction with current job	OR=1.920, CI 1.262-2.921, p<0.002
Dissatisfaction with choice of profession	NS
Emotional exhaustion	NS
2009/2010:	
Satisfaction with current job	OR=2.914, CI 1.870-4.541, p<0.001
Emotional exhaustion	OR=0.440, 95%CI 0.284-0.683, p<0.001
Dissatisfaction with choice of	NS

Abbriviations
- ANOVA: analysis of variance
- AOR: adjusted odds ratio
- CI: confidence interval
- ED: emergency department
- ERI: effort-reward imbalance
- HPPD: hours per patient day
- ICU: intensive care unit
- MANOVA: multivariate analysis of variance
- NA: nursing assistent
- NCI: nursing care intensity
- NS: non-significant
- OR: odds ratio
- PCS: patient classification system
- Q: question
- RC: regression coefficient
- READI: Real-time Emergency Analysis of Demand Indicators
- RN: registered nuse