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Imbalance between working environment and family life of registered nurses: A multilevel modeling analysis.

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Background

The present shortage of registered nurses (RNs) in many European countries is expected to continue and worsen, which poses a substantial threat to the maintenance of health-care in this region. In Sweden, nursing staff is one of the occupational groups with the highest rates of long-term sickness absence. One way of dealing with the RN shortage is to keep staff healthy and willing to continue to work. EU has identified work-family conflict as a leading source of stress-related ill health, but it is largely unknown how organizational factors in nurses' practice environment at hospitals influence their work-home balance.

Objective

To examine empirically whether the nurse practice environment is associated with experienced work-family conflict (WFC), a known risk factor for turnover and sickness absence.

Methods

A sample of 8550 RNs (7982 female and 568 male) was used from the Swedish portion of a 15-nation EU 7th Framework collaborative project, RN4CAST, which allowed multilevel structure with nurses nested within departments (369) and then departments nested within hospitals (72), complemented with organizational data from these hospital administrations.

Three versions of random intercept multilevel model was fitted with RN at the 1st, and department at the 2nd level in a stepwise manner to uncover variability explained by variables at different levels.

Conclusion

The study is the first to demonstrate that higher order organizational factors related to the practice environment have significant impact on the risk

of work-family conflict among RNs. Since work groups could not be identified in the material, the impact of organizational factors at lower levels – which are likely also to be of importance – could not be estimated apart from individual factors. The study therefore indicates that more research and attention should be paid to how the nursing environment enables employees to successfully combine work and private life.

Results

Six percent of the variability in WFC lies between departments, and this drops to 1% after adjusting for aggregated department level variables with variables *having adequate staff* and *involve in hospital affairs* significantly reduce WFC. Individual characteristics-male, advancing in age, and higher proportion of RN in direct care significantly reduce the WFC (table 1).

Table 1: Estimates for multilevel models as a function of nurse & department level variables.

Note: *p<0.05; figures in parentheses are S.Es of estimates; RN: registered nurse.

Fixed Effect	Model-I	Model-II	Model-III
Nurse level			
Intercept	5.857*(0.029)	5.711*(0.038)	8.714*(0.323)
Age (in years)		-0.012*(0.003)	-0.012*(0.003)
Male		-0.155*(0.070)	-0.143*(0.069)
Job dissatisfaction		2.009*(0.071)	1.979*(0.071)
Proportion RN in direct care		-0.350*(0.094)	-0.224*(0.088)
Degree in nursing		0.048(0.044)	0.041(0.043)
Career experience as RN(in years)		0.006***(0.003)	0.006***(0.003)
Department level			
Staff adequacy			-0.180*(0.021)
Nursing impact on hospital affairs			-0.064*(0.018)
Nursing care model			0.003(0.018)
Leadership & support for nurses			-0.013(0.029)
Nurse-physician relationship			-0.004(0.015)
Random Effects(variance)			
Department level(τ_{00})	0.178*(0.022)	0.137*(0.019)	0.030*(0.010)
Nurse level(σ^2)	2.718*(0.041)	2.471*(0.039)	2.470*(0.039)
AIC	34677.45	32306.31	32110.64
BIC	34698.75	32369.79	32209.39
Deviance	34671.46	32288.30	32082.64

CONTACT