Scandinavian Journal of Caring Sciences

Challenging and redesigning a new model to explain intention to leave nursing

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Background

It is important to have a full and detailed understanding of the factors that influence intention to leave nursing. It has been shown to be the best predictor of actual turnover, and turnover has a significant financial impact and also on the provision of care.

Aims

The aim is to examine the impact of predictive work environment factors on nurses' intention to leave their position and to explore contributing factors.

Methods

Cross sectional survey using a convenience sample (n=605) of Finnish nurses drawn from five clinical settings. The Nursing Context Index, an internationally used and psychometrically validated tool was used to measure workplace practice environment, work stress, job satisfaction and intention to leave. A response rate of 29.4% was achieved, exceeding power calculation estimates.

Results

Personal satisfaction and satisfaction with profession and resources, and organisational commitment were significantly related to intention to leave. Younger nurses reported higher levels of intention to leave and there was variability among clinical specialties. Measures of stress and practice environment had no significant relationship with Intention to leave.

Discussion

This study provides a new theoretical model for understanding intention to leave. Having a better understanding of the factors that may help reduce intention to leave allow for targeted interventions to be developed; and implemented. This would help reduce the personal and financial implications associated with turnover.

Implications for practice, policy, management and education

The findings have significant implications for all aspects of nursing. Educators need to prepare new nursing staff for the working environment; policy makers must ensure that nursing satisfaction is promoted to strengthen organisational commitment and nurse managers and leaders respond accordingly in implementing effective interventions.

Word count: 4040 (excluding abstract, declaration and references)

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BACKGROUND

Internationally, there is a continuing growth in demand on healthcare settings resources as they face an aging population and associated growth in non-communicable conditions (1). This increase in demand for additional nursing staff in being compounded by a decrease in available nursing staff. The World Health Organisation (2014) predict that by 2035 there will be a shortage gap of 12.9 million health care professionals and nursing constitutes the majority of the health care profession staff (2). Buchan with colleagues (3) identified the current problem of the nursing 'shortage gap' internationally and predicted this to grow significantly over the next thirty years. This shortage gap is due to a lack of investment in developing the profession, an increasingly aging workforce and a more challenging work environment (3) has resulted in scarcity of nurses. In western societies, this has resulted in nurses being recruited from developing countries, moving the issue of scarcity from one country to another (4). This presents a significant moral and ethical issue at an international professional level.

Turnover is recognised as 'complex and multifaceted' (5) and turnover rates range from 15.1% to 44.3% across developing counties (6) and across specialties (7). It can be voluntary (retirement) or involuntary, avoidable or not avoidable, and can be internal, that is leaving for another nursing or non-nursing job in the same organisation or external, that is leaving for another nursing or non-nursing job in a different organisation. This means that defining the nature of 'turnover' is problematic and comparisons between research studies is difficult.

Excessive nursing turnover has a substantial disruptive effect on the organisational process, reducing the effectiveness and productivity of care delivery (8), decreased patient safety and patient outcomes (6). A better understanding of turnover may help with reducing turnover,

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increasing retention and has become an important workforce development issue. The financial burden of recruiting and training nursing staff has been calculated as $10,098 – $88,000 per nurse turnover (9).

Central to predicting turnover is the issue of nursing intention to leave (5). Turnover is usually superseded by intentions to leave the organisation, and Hasselhorn et al. (10) reported that intention to leave varied from 4% to 54% across international studies. Intention to leave is most often seen in workplaces with high rates of absenteeism, work-related stress, burnout and job dissatisfaction (8). Intention to leave among young registered nurses (under the age of 30 years) centred on poor nursing practice environments, lack or support, orientation and mentoring and nursing as a "second best" or serendipitous career choice (11). A workforce survey included responses from 1133 RNs at 32 Finnish hospitals and from two neighbour countries, 3752 RNs at 35 Norwegian hospitals, and 11 015 RNs at 71 Swedish hospitals. Nearly half the Finnish sample reported intention to leave, with significantly lower levels in Norway and Sweden (p < 0.001). Patient workload was associated with job satisfaction and intention to leave to some degree in all countries, i.e. greater patient workload, less job satisfaction and greater intention to leave. (12.)

In a systematic review of previous systematic reviews on intention to leave, Halter et al. (13) reported the presence of 4 broad categories: Individual determinants included two subsets: demographic details (age, gender, marital status, educational attainment), and psychosocial (stress, job satisfaction, burnout, and job commitment): Job-related determinants include workload, role ambiguity, shift patterns and promotional opportunities; Interpersonal determinants include supervisor support, managerial style, recognition and leadership, autonomy, empowerment and social support: and organisational determinants including climate, organisational structure and financial determinants. These variables have a significant impact on changing intention to leave among nursing staff. However, Halter and

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colleagues (13) reported conflicting findings among many of the studies reported in the systematic reviews. Various reasons for these differences may be due to methodological issues, for example the use of varying measurement tools or uniqueness within the samples accessed.

Nei and colleagues (14) conducted a meta-analysis of the causes of turnover and, including data from 106 primary studies and after correcting for measurement error, reported supportive and communicative leadership, organisational commitment and network centrality were the strongest predictors of turnover. Additional significant variables included job strain, role tension, work-family conflict, job control, complexity, rewards/recognition and team cohesion. The authors concluded that a better understanding of the work environment and dynamic relationships between variables could help address the issue of intention to leave the job. Halter and colleagues (13) confirmed this position after examining interventions to reduce nursing turnover and noted that there is a large body of evidence relating to nursing turnover but it's not of high quality. However, there is robust evidence to show the effectiveness of interventions to decrease intention to leave and turnover (15).

Numerous causal models have been purported relating to intention to leave in nursing (for example: 16-19). Kim and Kim (20) examined 24 papers assessing models of nursing turnover and identified 36 indicators and 105 items were identified to measure nurse turnover. In a review of the models of turnover, it was related to burnout, job stress, organisational commitment, job satisfaction, organisational culture and empowerment in directional relationships and in varying degrees of strength.

Daouk-Oyry and colleagues (21) presented a conceptual (JOINT) model of turnover where determinant was at an interpersonal level (managerial style and relationships); Job level (Job demands and job control) and organisational level (Human resources practices and structure).

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These three concepts were moderated by individual level (demographics, personal characteristics, job attitude, health and wellbeing) and national level (labour supply and legislation) characteristics on turnover. The interact and interplay of the concepts produce intention to leave among nurses.

The variables associated with intention to leave the job used in this study were demographic details, work stress, job satisfaction and organisational characteristics. Structural equational modelling techniques (using factor analysis) will be used to reduce variables that share commonalities and explore the new variables relationships (using path analysis) with intention to leave, in order to help provide a better model of organisational culture of nursing and intention to leave nursing.

METHODOLOGY

The aim was to examine the impact of work environment factors on nurses' intention to leave their position and to explore contributing factors. To achieve this:

1. Work context and intention to leave the position were assessed using the Nursing Context Index;

2. Factor analysis was used to cluster constructs together to examine their impact on intention to leave

3. Path analysis was used to measure the strength and significance of construct clusters on intention to leave.

4. Linear regression analysis was used to measure variance and significance of factors on intention to leave.

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Sample

The sample was collected from Finland. In 2014, about 78 % of staff educated to work in

health and social care worked in health service setting. Around 15 % work in other areas and

8 % in education/management (22). There is a population of 74,781 registered nurses in

Finland (22) in 2014. Based on this population size and 95% confidence level, and a

confidence interval of 5% a sample size of 382 was required. A convenient sample of

Nursing staff (n=605) from two university hospital district areas of five in Southern-Finland

were assessed using the Nursing Context Index (NCI) including the following five settings -

Operating Room nurses (N=336), Emergency nurses (N=506), Designated nurses from health

care centres (N=300), Psychiatric nurses (N=577) and Primary care nurses (N=340).

Procedure

The lead nurses in each setting were contacted and acted as gatekeeper for the distribution of

the survey. Data were collected using mainly an electronic survey (in one clinical area the

paper format was used) from 2012 to 2016 in one clinical area at a time and data collection

formed part of a larger continuing research project. All nurses from purposefully selected

units were sent by a contact person (selected by the organization) an information package

with a letter of invitation, and a participation information sheet with a hyperlink to the

questionnaire. The sample was sent three reminder emails. Cover letters with a short

announcement were sent to the contact persons and head nurses, and they conveyed the

letters to the nursing staff.

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Instrumentation

The Nursing Context Index (NCI) (23) is a measure of micro-level contextual factors,

localised to the ward and hospital level but influenced by meso and macro-level determinants.

The Nursing Context Index is a 78-item instrument designed to measure the 19 constructs

that are the focus of this paper (2 to 7 items in each) on a 7- point Likert scale. Developed as

a tool to measure workplace context indicators, such as work stress, job satisfaction, and the

practice environment such as management, organisational commitment and intention to leave

the job, associated with nursing. Higher scores indicate a higher level of perception of the

measured item. Job stress was measured on a no stress to extreme stress; job satisfaction was

measured on very dissatisfied to very dissatisfied; the practice environment was measured

from strongly disagree to strongly agree (24). Intention to leave was measured on strongly

disagree to strongly agree, where higher scores reflect greater intention to leave the post

(negatively scored). Its psychometric properties have been previously demonstrated

internationally (23, 25-29) and across nursing specialties references. In earlier studies, the

Cronbach's alpha of the NCI was registered as 0.57-0.9 (23). Demographic details are also

collected but vary across studies. The NCI was previously tested with a sample to ensure

appropriateness to a Finnish population of nurses (26, 27). The analysis in this study reduced

the items to 19 construct scores and focused analysis on the relationships between constructs

and intention to leave the job.

Statistical Analysis

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Data were examined for missing data prior to analysis using the Little's test for MCAR to confirm no pattern to missingness. Missing data was replaced using estimation maximisation on the 78 Likert scale variables. This ensured uniformity of the final data set, prior to generation of construct scores. Demographic details were not replaced.

Descriptive statistics (means and standard deviations) were generated for the 19 constructs of the Nursing Context Index. Measures of distribution and Cronbach's Alpha scores were generated for the constructs. Exploratory factor analysis was conducted for all 18 constructs (except Intention to Leave) to identify patterns of distribution and focused analysis on the relationships between constructs and intention to leave the job. To help reduce confusion – the 19 constructs will henceforth be referred to as items (as is usual with second order latent variable modelling analysis).

These NCI was tested for its psychometric properties prior to full analysis. Cronbach' alpha scores were also generated for the final factor in the model and scores greater than 0.7. The 18 scores (intention to leave is an outcome variable that we wish to predict and therefore excluded from the factor analysis) were tested for appropriateness for factor analysis using Kaiser-Meyer-Olkin measures of sampling adequacy and the Bartlett's test for Sphericity. In factor analysis, a maximum likelihood method of extract was conducted on the 18 scores and set to extract a factor model containing anywhere between 1 – 10 subsets. Acceptable factor loadings based on the sample size, were set at 0.45 (30). Acceptable fit statistics were set at Root Mean Square Estimations of Approximation (RMSEA) of 0.06 or below; 90% RMSEA higher bracket below 0.08; and Confirmation Fit Indices (CFI) of 0.95 or higher (31). were considered acceptable. Intention to leave was examined using linear regression according to the 18 scores as well as the demographic characteristics of the respondents.

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Ethical Issues

The study was part of a larger study 'Improving the quality and safety of health care through outcomes' project" which aimed at identifying models that seek to explain the functionality of the service system to contribute to knowledge and safety and to use it to benefit the health service system and patients. All research was conducted in line with the principles of the declaration of Helsinki (32). The study followed the guidelines of the Scientific Ethics Advisory Board (TENK) in Finland whilst no ethical committee statement was needed, while patients were not involved in the study. The permission to collect the data was granted from all institutions involved.

To retain objectivity, the study design was operationalised without any direct contact with participants. Electronic (in one clinical area the paper format was required) distribution of the questionnaire was used to collect all data. IP-addresses could not be used to identify computers, and hence participants. The anonymity and confidentiality of participants were assured. Participation was voluntary and completing the questionnaire implied consent.

RESULTS

Demographic Details

A response rate of 29% (n=605) was achieved. This exceeded the power calculation and produced confidence interval of 3.97%. Most respondents were female (90.0%) and the mean age of participants was 41.41 (SD 11.57) years of age. One third of participants (32.0%, n=125) had over 20 years' experience working in healthcare settings. (Table 1) Most participants were nursing personnel working in primary health care in patient units (33.6%)

but there was a good spread across the five work categories with adequate samples within groups to compare with further analysis. (Figure 1)

Insert Table 1 here

Insert Figure 1 here

Overall, the workplace environment was positive. Examination of table 2 shows that work stress was scored highest source of stress at moderate stress (mean=3.96, SD 1.17) and the lowest score of stress was 'Conflict with other Nurses' (mean=2.11, SD 0.82) indicating little stress. Personal satisfaction provided the highest score of satisfaction but there was a general ambivalence on scoring with most measures on job satisfaction being scored at mean = 3.76 – 5.24. Similar results were found with constructs relating to the practice environment.

Insert Table 2 here

Examination of the correlation matrix indicated no issues of collinearity between the 18 constructs of the questionnaire and all relationships were in the directions as expected. Cronbach alpha scores indicate all factors were statistically appropriate (See Table 2)

Intention to leave

Examination of scoring of nurses' intention to leave showed that 44.6% disagreed that they wanted to leave the job, and 14.6% agreed that they would leave their position. The 18 scores

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of the NCI were categorised into three blocks of variable for linear regression analysis: block

1 – Stressors in work; block 2 – Job satisfaction; block 3 – Organisational characteristics.

Each block of predictors contributed to explaining the outcome model of intention to leave

the job. Examination of the adjusted R show an increase in variance explained (model 1 –

0.089; model 2 – 0.248; model 3 – 0.274) with block 2 'job satisfaction' making the largest

contribution. In the final model statistically significant predictors of intention to leave the job

were: Work social life balance, (standardised beta, 0.131 P=0.009); Lack of Staff Support

(standardised beta, -0.168 P=0.007); satisfaction with pay (standardised beta, 0.131 P=0.009);

satisfaction with training (standardised beta, 0.131 P=0.009); Personal satisfaction

(standardised beta, 0.131 P=0.009); nursing management (standardised beta, 0.131 P=0.009);

organisational commitment (standardised beta, 0.131 P=0.009). In order to provide a

parsimonious and simplistic model to explain intention to leave, it was considered

appropriate to conduct a factor analysis on the 18 measures to identify patterns in responding

and further reduce measures for path analysis.

Examination of the Emergent Factor Structure

Examination of the correlation matrix show all scores to be in a low to moderate range and

that collinearity was not an issue. Examination of Kaiser-Meyer-Olkin measures of Sampling

Adequacy (0.851) and the Bartlett's test for Sphericity (2953, df=190, p=0.000) scores show

the acceptability of the 18 measures for acceptability for factor analysis.

An exploratory factor analysis was conducted to examine the most appropriate structure

model. Examination of the various factor model fit statistics and theoretical structuring of the

emergent model show that the 8-factor model provides the best explanation for the data and

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providing acceptable fit statistics (RMSEA 0.054, 90% RMSEA 0.042–0.067; CFI=0.983,

SRMR = 0.014). The details of the emergent model are outlined in table 3.

Insert Table 3 here

Five new constructs emerged, contained two or more items (See Table 4), and all

relationships were statistically significant. There were three single measure items. These

factors were titled: factor 1 – Work stress and Preparation; Factor 2 - Interpersonal

relationships; Factor 3 – The work climate; Factor 4 – Satisfaction with the profession and

resources; and Factor 5 - Organisational management (Table 4). All eight measures were

included into a path analysis for examination.

Insert Table 4 here

Path Analysis Model of Intention to Leave

As figure 2 displays, the examination of the measurement model using path analysis shows

that only the construct 'Satisfaction with the Profession and Resources' had a statistically

significant negative relationship with intention to leave. The single measures 'Personal

satisfaction' and 'Organisational Commitment' (v12 and v17 respectively, see figure 2) had a

statistically significant negative relationship with intention to leave. These measures show

that with increasing satisfaction levels (pay, training, personal, professional, adequate staffing

and resources, organisational commitment) there is a decrease in intention to leave the job.

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There were no other statistically significant relationships between the other four factors, or uncertainty regarding treatment (v5) and intention to leave.

Insert Figure 2 here

Impact of Demographic Characteristics on intention to leave

Linear regression modelling technique was used to examine the impact of the demographic details (age, specialty, gender, qualification and years working in health care and years working in current setting) on intention to leave. The model helped explain 6.4% of the variance of intention to leave. The findings show that age (0.580, p=0.000), years in the healthcare profession (0.162, p=0.038) and nursing specialty (0.160, p=0.039) were statistically significant. Examination of the categorical data (Age and specialty) using inferential statistics confirm the findings (unit = 2.851, p=0.023; age f=7.685, p=0.001). Further comparison using post hoc analysis shows lowest intention to leave scores among the emergency nurses and designated nurses (primary nurses/community nurses responsible of certain client group) in health care settings. Statistically significant differences were noted between both 18–25 and 26–35 years old and both 46–55 and >55-year old nurses; and 36–45 years old and >55 years old. (Table 5)

Insert Table 5 here

DISCUSSION

Discussion of the results

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Nursing faces a significant 'shortage gap' now and in the future (3). It is important to have a full and detailed understanding of the factors that influence intention to leave nursing (1, 13). Intention to leave has been shown to be the best predictor of actual turnover (5), and turnover has a negative significant impact on the provision of care (8). A deeper understanding of the factors that impact (and not impact) on intention to leave are important as Halter and colleagues (13) have shown that well informed, evidence-based interventions can and do have a statistically significant impact on increasing retention/reducing turnover. The targeted application of interventions on those identified variables will help reduce intention to leave as well as reduce wasted resources, costs, time and finance (3).

Overall the work environment was generally ambivalent and/or slightly positive. Work stress was low to moderate (also e.g. 33); nurses were neither satisfied nor dissatisfied with the job (also e.g. 34, 35) and the practice environment was generally positive (also e.g. 34, 36).

The emergence of an 8-factor model provided the best fit for the 18 variables both as a statistical and a theoretically relevant model. This included 5 factors and 3 single item measures. The variables identified in this research as significant, that impact on intention to leave, do not align themselves with the broad themes identified by Halter et al. (13). Whilst the researchers do acknowledge that not all previously identified variables were included in this study, there are a significant number of variables that were included but failed to have a statistically significant impact. Kim and Kim (20) reported a growth the number and complexity of models examining intention to leave. This study provides a new, more parsimonious model of understanding of 'Intention to leave' and the relationship between these variables.

The model that emerged from the data replicated that of Kim and Kim's (20) review of theoretical models and job stress, organisational commitment, job satisfaction, organisational

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culture and empowerment (burnout not measured here), but in this model only those variables relating to satisfaction with the profession and resources (pay, training, profession and adequate staffing and resources), personal satisfaction and organisational commitment have a statistically significant relationship with intention to leave. Halter and colleagues (13) reported that conflicting results across studies on the significance of variables in predicting intention to leave.

Of the personal characteristics, only age was statistically significant and as age increased intention to leave decreased. Similar age-related effects had been reported in the systematic reviews of Halter et al. (13). There was no gender effect noted, as reported in previous research. Personal details such as length of time working in the healthcare environment and in the current post did not have a significant impact on intention to leave. The selection of nurse specialty had a significant impact on scores of intentions to leave, with higher levels of intention to leave among designated nurses in healthcare settings and operating room nurses. The impact of specialty has been well documented in the research literature (7) and the findings here confirm the necessity to see nursing specialty as being a broad spectrum and further research is required to examine the application of the findings within each area.

These variables do relate to the professional aspects of nursing (pay, training, professionalism and adequate staffing and resources), personal satisfaction and organisational commitment. Also, in a recent Finnish study, the impacts of salary dissatisfaction and unreasonable job demands were the main factors affecting the intention to leave the profession. This study examined the intention to leave the profession of those nurses who are 29-years old or younger (37).

The findings of this study further underlines that many of the variables assumed to predict and/or explain nurses' intention to leave have no direct impact on intention to leave and it

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may be time to reduce the complexity of theoretical models accordingly. A view put forward

by Halter and colleagues (13) and reiterated by Nei et al (14).

Limitations

This study is heavily reliant on data driven emergent models of relationships between

variables to produce the factor structure, as is the case with exploratory factor analysis

techniques. However, it does produce a pure emergent model without theoretical constraints.

Previous measurement models could have been examined as better fits for the data, however

our intention was to create a new understanding of the data.

The prescriptive nature of quantitative research does limit what is measured in any study.

However, the Nursing Context Index measures 19 different variables and demographic details

that relate to the nursing work environment. More variables could be included in the Nursing

Context Index to provide a more comprehensive picture of the relationships between

variables. The nursing work environment is complex and complicated, and any measurement

is always subject to question. This study provided an advanced understanding with the

sample identified. The findings would be greatly helped by more research into this area with

different samples and across countries.

More research evidence is required to identify the interactive effects of variables and the

mediating effects different variables have on each other, since the data analysed here were

just from one country, Finland. However, the data was collected by quite stable situation

while about the same percent of educated staff (38) was working in the health care sector in

year 2014 and 2017, while no newer official information exists.

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CONCLUSION

There is a shortage of nurses internationally. Nurse turnover continues to contribute to this problem and has a significant impact on healthcare settings. Understanding the factors that impact on intention to leave among nurses is important. This study found that issues with satisfaction (personal and professional) and organisational commitment had an impact on intention to leave, as did age and specialty of nursing. These findings are highlighted for managers to consider. The factors are multidimensional and solutions to be used by managers cannot be the same for each group and clinical area.

Satisfaction has a major impact on nursing intention to leave the job. The complexity of the impact of the work environment on nurses' intention to leave is not bore out in the study findings. New models of turnover need to be explored in order to generate a better understanding of how the workplace impacts on nursing turnover.

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Table 1. Demographic Details of the participants (variability due to missing data)

Demographic Details	%	n
Gender		
Males	10.0	60
Females	90.0	543
Ages		
18–25 years	7.6	44
26–35 years	27.0	156
36–45 years	22.7	131
46–55 years	26.0	150
56 > years	16.6	96
Working in Health Care		
Less than 1 year	5.4	21
1–5 years	19.7	77
6–10 years	17.1	67
11–15 years	14.8	58
16–20 years	11.0	43
20 > years	32.0	125

Table 2. Distribution of Spread across 19 Constructs of the Nursing Context Index

Construct	Mean	SD	Skewness	Kurtosis	Cronbach's Alpha
Sources of Stress					
Work stress	3.96	1.17	.12	-.56	0.92
Inadequate preparation	3.33	1.01	.12	-.09	0.83
Lack of staff support	2.59	1.05	.70	.36	0.76
Conflict with other nurses	2.11	.82	1.00	1.72	0.64
Uncertainty regarding treatment	2.44	.87	.36	-0.35	0.60
Work social life balance	2.68	.94	.55	.06	0.74
Working environment	2.27	.98	1.19	1.82	0.79
Communication among staff	2.92	1.02	.45	.02	0.80
Career development	2.21	.97	.83	.28	0.75
Sources of Job satisfaction					
Satisfaction with pay	3.76	1.03	.032	-.02	0.77
Satisfaction with training	4.62	1.47	-.47	-.43	0.92
Personal satisfaction	5.24	.79	-.55	.61	0.77
Professional satisfaction	4.92	.88	-.59	.74	0.70
Organisational Traits					
Adequate staffing and resources	3.54	1.33	.14	-.74	0.84
Doctor nurse relationship	4.84	1.07	-.63	.19	0.80
Nursing management	4.49	1.03	-.34	-.36	0.72
Organisational commitment	4.04	1.08	.03	-.03	0.64
Empowerment	3.47	1.21	-.04	-.54	0.81
Intention to leave the job	3.26	1.77	.35	-.92	0.93

Table 3. Fit Indices of the Exploratory Factor Analysis for the 1-10 model

	Chi Square / Degree of freedom	RMSEA	90% RMSEA	CFI	SRMR
Factor Model 1	1480/135	0.130	0.124 – 0.136	0.648	0.101
Factor Model 2	785/118	0.098	0.091 – 0.104	0.825	0.053
Factor Model 3	686/102	0.099	0.092 – 0.106	0.847	0.046
Factor Model 4	615/87	0.101	0.094 – 0.109	0.862	0.036
Factor Model 5	368/73	0.083	0.074 – 0.091	0.923	0.027
Factor Model 6	225/60	0.068	0.059 – 0.078	0.957	0.021
Factor Model 7	172/48	0.066	0.056 – 0.077	0.967	0.016
Factor Model 8	100/37	0.054	0.042 – 0.067	0.983	0.014
Factor Model 9	71/27	0.053	0.038 -0.068	0.988	0.011
Factor 10	No Model				

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Table 4. Exploratory Factor Analysis of the 18 constructs of the Nursing Context Index

V	Construct (Number of items)	Factor Numbers							
		1 Work stress and Preparation	2 Interpersonal relationships		3 The work climate	4 Satisfaction with the profession and resources		5 Organisational management	
1	**Work stress** (5)	1.045							
2	**Inadequate preparation** (3)	0.475							
3	**Lack of staff support** (3)		0.507						
4	**Conflict with other nurses** (4)		0.518						
5	**Uncertainty regarding treatment** (4)			0.938					
6	**Work social life balance** (4)				0.473				
7	**Working environment** (4)				0.849				
8	**Communication among staff** (5)				1.834				
9	**Career development** (4)				0.575				
10	**Satisfaction with pay** (5)					0.735			
11	**Satisfaction with training** (3)					0.530			
12	**Personal satisfaction** (5)						0.946		
13	**Professional satisfaction** (5)					0.333			
14	**Adequate staffing and resources** (4)					0.297			
15	**Doctor nurse relationship** (3)							0.323	
16	**Nursing management** (7)							0.882	
17	**Organisational commitment** (3)								1.443
18	**Empowerment** (4)							0.364	

Table 5. Mean scores (standard deviations) of intention to leave according to Age and Speciality of Nurses

	Mean (SD)
Age	
18–25 years	3.9 (1.9)
26–35 years	3.5 (1.7)
36–45 years	3.3 (1.8)
46–55 years	2.9 (1.8)
56 > years	2.6 (1.8)
Specialty	
Designated nurses in Healthcare Settings	3.9 (1.9)
Operating room nurses	3.5 (1.7)
Psychiatric Nurses	3.3 (1.8)
A&E Nurses	2.9 (1.8)
Primary health care, in patient Units	2.6 (1.8)

Higher scores reflect more likely to leave the job

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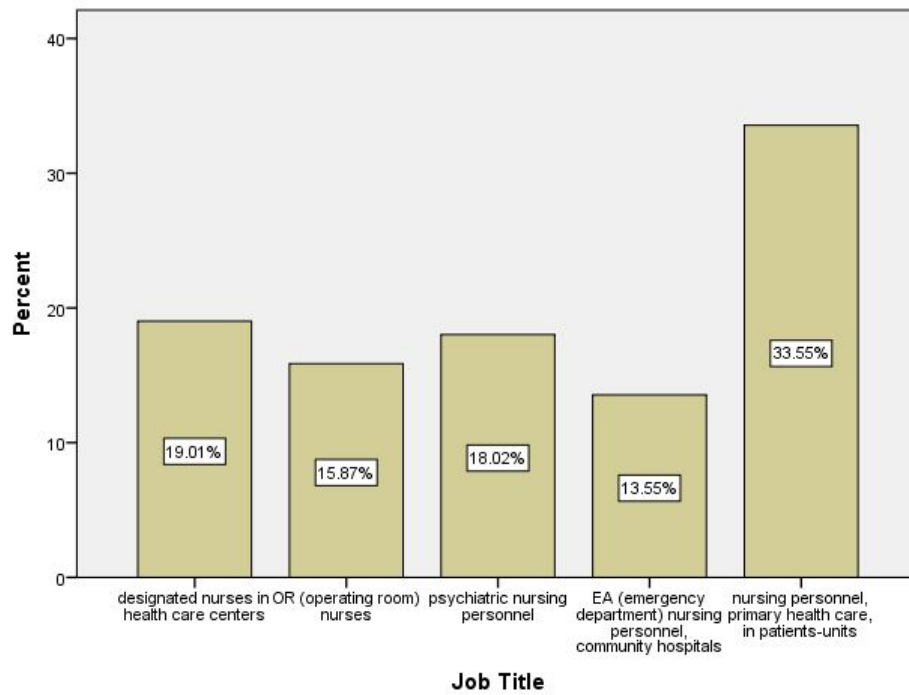45
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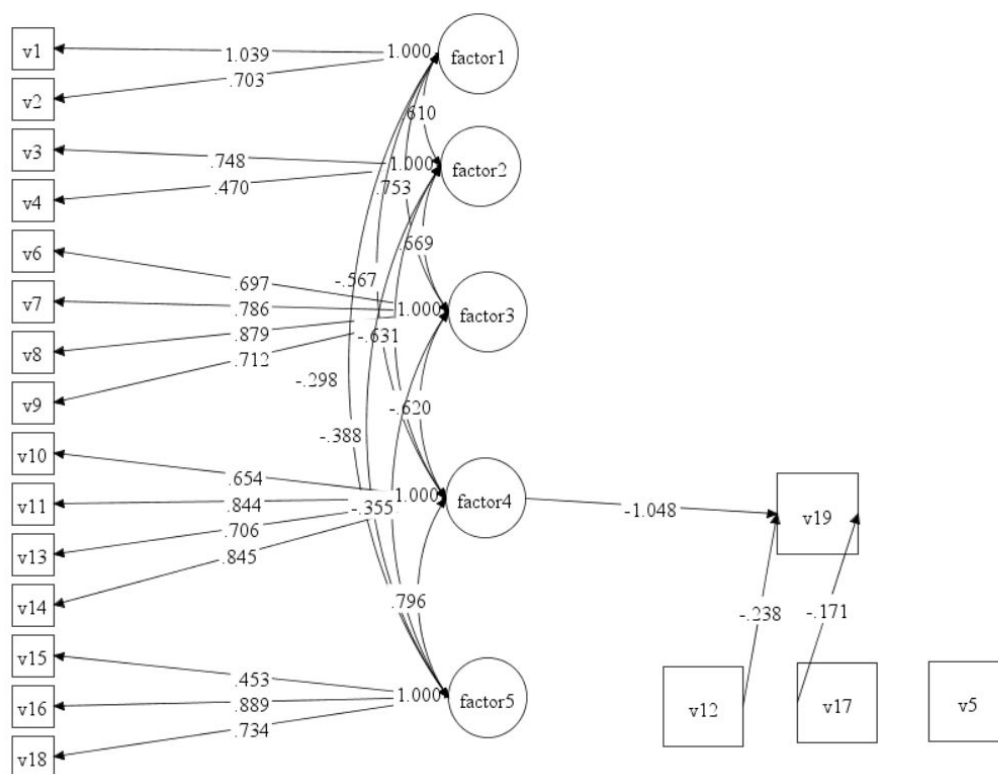**Figure 1. The Job Title of participants in the study**

Figure 2. Path Analysis of the 18 constructs of the Nursing Context Index and their relationship with Intention to Leave

Factor 1 – Work stress and Preparation; Factor 2 - Interpersonal relationships; Factor 3 – The work climate; Factor 4 – Satisfaction with the profession and resources; and Factor 5 - Organisational management. v5 – Uncertainty regarding treatment, v12 – Professional satisfaction and v17 – organisational commitment.