

Do intrapersonal characteristics influence work performance & caring behaviors?

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Overview

- ▣ Introduction
- ▣ Research aim
- ▣ Research methods
- ▣ Data collection
- ▣ Data analysis
- ▣ Results & discussion
- ▣ Conclusion

Who Am I

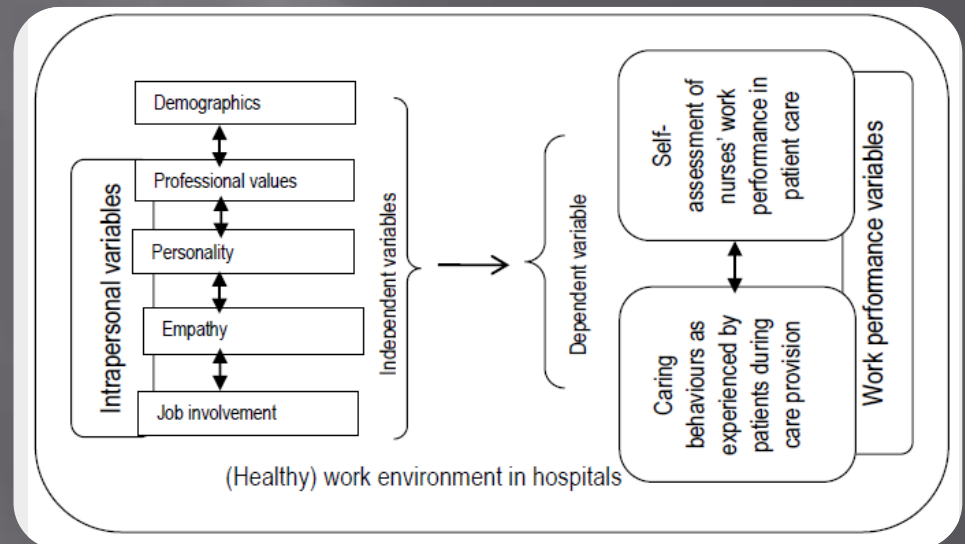


Introduction

- ▣ Conflicting reports on the quality of nursing care
 - Patients indicate that they received good care from the same hospitals reportedly providing poor care
 - SA Nursing Council statistics
- ▣ “Good” and “bad” nurses
- ▣ Wealth of evidence on influence of work environment on work performance
- ▣ Globally there is evidence that some intrapersonal characteristics do influence work performance
- ▣ Do nurses’ intrapersonal characteristics have an influence on their work performance and caring behaviours?

Aim of the research

- To make predictions about the influence of selected demographic and intrapersonal characteristics of nurses' on their work performance and caring behaviors
- The selected intrapersonal characteristics:
 - professional values
 - personality
 - empathy and
 - job involvement



Research methods

- ▣ Quantitative, cross-sectional survey in 8 hospitals
- ▣ Target population: professional nurses (RNs) working in medical-surgical units in hospitals
- ▣ Sample stratified to ensure the largest possible population of professional nurses

Research method (cont)

- ▣ Stratified sample:
 - province with largest number of nurses – purposefully selected
 - district with largest number of hospitals – purposefully selected
 - general hospitals randomly selected in both public and private sector
 - all nurses in medical-surgical wards invited maintaining a ratio of 2 nurses from public sector to 1 nurse from private sector
 - random selection of patients in collaboration with the unit manager (inclusion criteria: older than 18years, in hospital longer than 24 hours, not in discomfort, able to speak & write English, Afrikaans, isiZulu or Sesotho)

Research method (cont)

- ▣ Valid and reliable self-report data collection tools
- ▣ Completed by nurses:
 - Work performance: Schwirian's 6-Dimension Scale of Nurse Performance (6-DSNP)
 - Professional Values: Nurse Professional Values Scale-Revised (NPVS-R)
 - Personality: Core-self Evaluations Scale (CSES)
 - Empathy: Empathy Quotient Short form (EQ-short)
 - Job Involvement: Kanungo's Job Involvement Scale
- ▣ Completed by patients: Caring Behaviour Inventory (CBI)
 - Translated into Afrikaans, isiZulu or Sesotho

Ethical considerations

- ▣ University of KwaZulu-Natal Humanities and Social Sciences Research Ethics Committee (HSS/0129/013D)
- ▣ Informed consent was obtained from:
 - regional structures and management of every participating hospital
 - nurses
 - Patients Questionnaires were distributed and collected in envelopes, participation was voluntary and anonymous as respondents could decline to participate or not submit a completed questionnaire
- ▣ Fundamental ethical principles of respect for persons, beneficence and justice adhered to by attending to respondents' right to privacy, anonymity and confidentiality, fair treatment and protection from discomfort and harm

Data collection

- ▣ Data collection September 2013 to March 2014
- ▣ Meetings with nursing management of participating hospitals to make arrangements
- ▣ Researcher distributed and collected nurse questionnaires which took about 35 minutes to complete – respondents could do that in their own time
- ▣ Trained field workers fluent in the identified languages obtained voluntary consent, distributed and collected the completed instruments from patients selected in conjunction with the unit manager

Data analysis

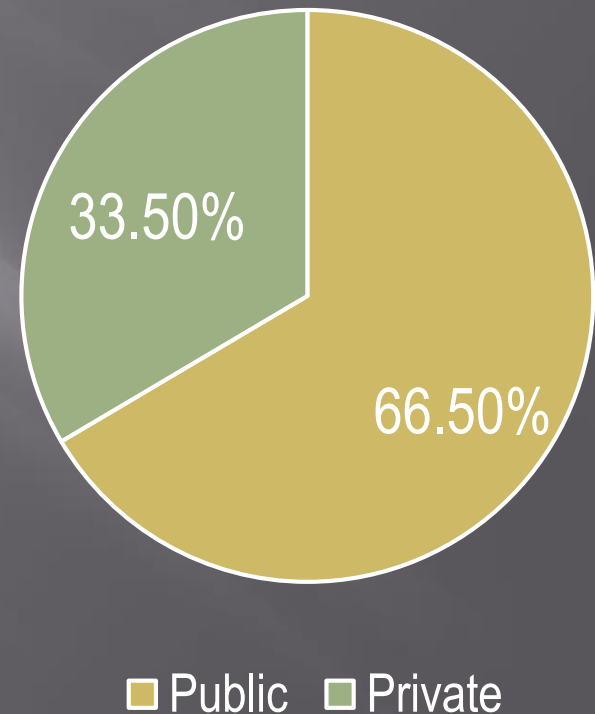
- ▣ Descriptive statistics and factor analyses with SPSS 21
- ▣ Exploratory (EFA) and confirmatory (CFA) factor analyses to justify construct validity, relationships among variables and extracting initial factors
- ▣ Correlations and multiple regression performed with SPSS 21 producing a Spearman Rank Order Correlation coefficient
- ▣ Structural equation modelling (SEM) to indicate to what extent the hypothesized model fits the data
- ▣ Multiple measures of good fit were applied in the study [Chi-square, (CMIN/DF); Comparative Fit Index (CFI); Root Mean Square Error of Approximation (RMSEA); Akaike Information Criterion (AIC) and the Browne-Cudeck Criterion (BCC)
- ▣ R-squared (R^2) to measure effect size of the correlation between ordered variables and Cohen's d for nominal demographical variables

Results & Discussion

Sample

- ▣ 8 of the 9 selected hospitals participated
- ▣ 524 questionnaires distributed to nurses, 249 (48%) returned, 218 used
- ▣ 135 questionnaires distributed to patients, 125 (80%) returned, 116 used

Distribution of sample: Nurses
(n=218)



Reliability of tools

Cronbach's α coefficient

Tools with subscales:

- ▣ 6-DSNP: 6 subscales
0.69 – 0.90
- ▣ CBI: 4 subscales
0.89 – 0.96
- ▣ NPVS-R: 5 subscales
0.77 – 0.87

Tools without subscales:

- ▣ CSES: 0.73
- ▣ Empathy: 0.90
- ▣ Kanungo Job Involvement
Scale: 0.78

Work performance

First 5
expected
from 'good'
nurses

	n	Minimum	Maximum	Mean	Std Deviation
6-DSNH					
Leadership	218	2	4	3.53	0.42
Critical care	217	2	4	3.53	0.40
Teaching/ collaboration	218	2	4	3.17	0.50
Planning/evaluation	218	2	4	3.48	0.47
IPR/communication	218	2	4	3.53	0.37
Professional development	217	2	4	3.55	0.46

IPR = Interpersonal relations

This is about
development
& safe practice

Intrapersonal characteristics

	n	Minimum	Maximum	Mean	Std Deviation
(NPVS-R):					
Professional values (total)	218	63	130	103.37	14.22
Caring	218	24	45	37.13	5.23
Activism	218	9	25	18.82	3.16
Trust	218	12	25	20.10	2.95
Professionalism	218	7	20	15.35	2.93
Justice	218	6	15	11.99	2.03
Core Self-evaluation (CSES)	218	34	84	61.68	10.54
EQ (without reverse scored items)	218	44.00	88.00	67.74	7.98
Job Involvement (excl item 2 and 7)	217	11.25	60.00	40.10	11.14

EQ = Empathy Quotient

Positively influence work performance and healthy workplaces

Satisfied with work and life, cope better, less likely to view work as challenging

Positive influence on patients' experience of quality of care

	n	Minimum	Maximum	Mean	Std Deviation
WIPVS-R):					
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EQ = Empathy Quotient

Committed, find job motivating, less likely to leave current employer

Caring behaviours of nurses (patients)

CBI Factor	n	Minimum	Maximum	Mean (M)	Std. Deviation
Assurance	116	2	6	4.79	1.19
Knowledge/ skill	116	3	6	4.95	0.98
Respectful	116	2	6	4.78	1.13
Connected	116	2	6	4.59	1.24

Demographics

NURSES

Demographic		Value	Missing
Sex	Female	205 (94%)	3 (1.4%)
	Male	10 (4.6%)	
Marital status			1 (0.5%)
	Single	77 (35.3%)	
	Married	102 (46.8%)	
	Live with partner	13 (6%)	
	Divorced	17 (7.8%)	
	Widowed	8 (5.4%)	
Work in	Private	74 (34%)	1 (0.05%)
	Public	143 (65.5%)	
Work in	Surgical	113 (51.8%)	7 (3%)
	Medical	98 (46.4%)	
Single parent	Yes	71 (33.6%)	1 (0.5%)
	No	146 (67%)	

PATIENTS

Demographic data	Value	Missing
Highest qualifications	3 (2.6%)	0
Up to grade 5	3 (2.6%)	
Grade 7	21 (18.1%)	
Grade 10	44 (37.9%)	
Grade 12	8 (3.7%)	
Certificate	13 (11.2%)	
Diploma	16 (13.8%)	
B-Degree	2 (1.7%)	
Masters		

Influence of demographics

NURSES

- ▣ Female nurses: better interpersonal relations and communication than their male counterparts
- ▣ Widow/ers: more positive about teaching/collaboration (work performance) and justice (professional value)
- ▣ Single parents: lower self-worth
- ▣ Private sector nurses more positive about planning/evaluation and professional development
- ▣ Nurses in medical wards were more positive about leadership & professional development

PATIENTS

- ▣ Only the educational level of patients had an influence on patients perceptions of nurses caring behaviors – those were higher levels of education were more critical about the care they received

Influence of intrapersonal characteristics on work performance (R₂) (n=218)

6-Dimension Scale of Nursing Practice	Leadership	Critical care	Teach/Coll	Plan/eval	IPR/Comm	Prof Dev
NPVS-R:						
Values-caring	0.137**	0.054**	0.074**	0.062**	0.124**	0.102**
Values-activism	0.092**	0.081**	0.106**	0.078**	0.123**	0.113**
Values-trust	0.169**	0.075**	0.092**	0.120**	0.131**	0.131**
Values- professionalism	0.130**	0.084**	0.122**	0.141**	0.121**	0.158**
Values-justice	0.155**	0.076**	0.102**	0.084**	0.146**	0.119**
Values-total	0.189**	0.094**	0.125**	0.119**	0.166**	0.157**
CSES (total)	0.0126	0.018	0.029*	0.028*	0.0157	0.034*
EQ (excl reverse scored items)	0.049**	0.024*	0.068**	0.023	0.032**	0.061**
Job Involvement (excl item 2 & 7)	0.006	0.003	0.030*	0.011	0.045**	0.001

** Correlation is significant at the 0.01 level (2-tailed);

* Correlation is significant at the 0.05 level (2-tailed).

0.01 = small; 0.1 = medium; 0.25 = large effect

Relationship between selected intrapersonal characteristics and caring behaviours

Variable	Spearman Rank Order Correlations			
	MD pairwise deleted			
Marked correlations are significant at $p < 0.30000$				
	CBI Assurance	CBI Knowledge, Skill	CBI Respectful	CBI Connected
Professional values (NPVS-R)				
Caring	-0.0138	-0.0557	-0.0007	0.0041
Activism	0.3563	0.3462	0.4104	0.3524
Trust	0.1509	0.0764	0.2072	0.1921
Professionalism	0.3694	0.2695	0.4218	0.3852
Justice	0.1379	0.0774	0.1887	0.1961
Total	0.2027	0.1342	0.2745	0.2379

Relationship: work performance & caring behaviours

- ▣ It was not possible to determine the relationship on an individual nurse level but only on ward level, because individual nurses are not linked with individual patients
- ▣ Nurses' and patients' factor scores were collapsed to ward level which produced 45 units
- ▣ Only the relationship between the critical care dimension of work performance and the knowledge/skill dimension of caring behaviours ($R_2 -0.338$) were important in practice indicating that the better patients perceive the nurses' caring behaviours, the lower nurses rate their own work performance

Relationship: work performance & caring behaviours

Variable	Spearman Rank Order Correlations MD pairwise deleted Marked correlations are significant at $p < 0.30000$			
	CBI Assurance	CBI Knowledge, Skill	CBI Respectful	CBI Connected
Work performance (6-DSNP)				
Leadership	-0.2704	-0.2417	-0.1826	-0.1740
Critical care	-0.2421	-0.338	-0.2207	-0.2303
Teach/Collaborate	0.1583	0.0212	0.2108	0.1971
Plan/Evaluate	-0.0400	-0.0968	0.0311	0.0274
IPR/Communication	-0.1300	-0.1774	-0.1221	-0.0936
Professional Development	-0.1046	-0.0990	-0.0680	-0.0474

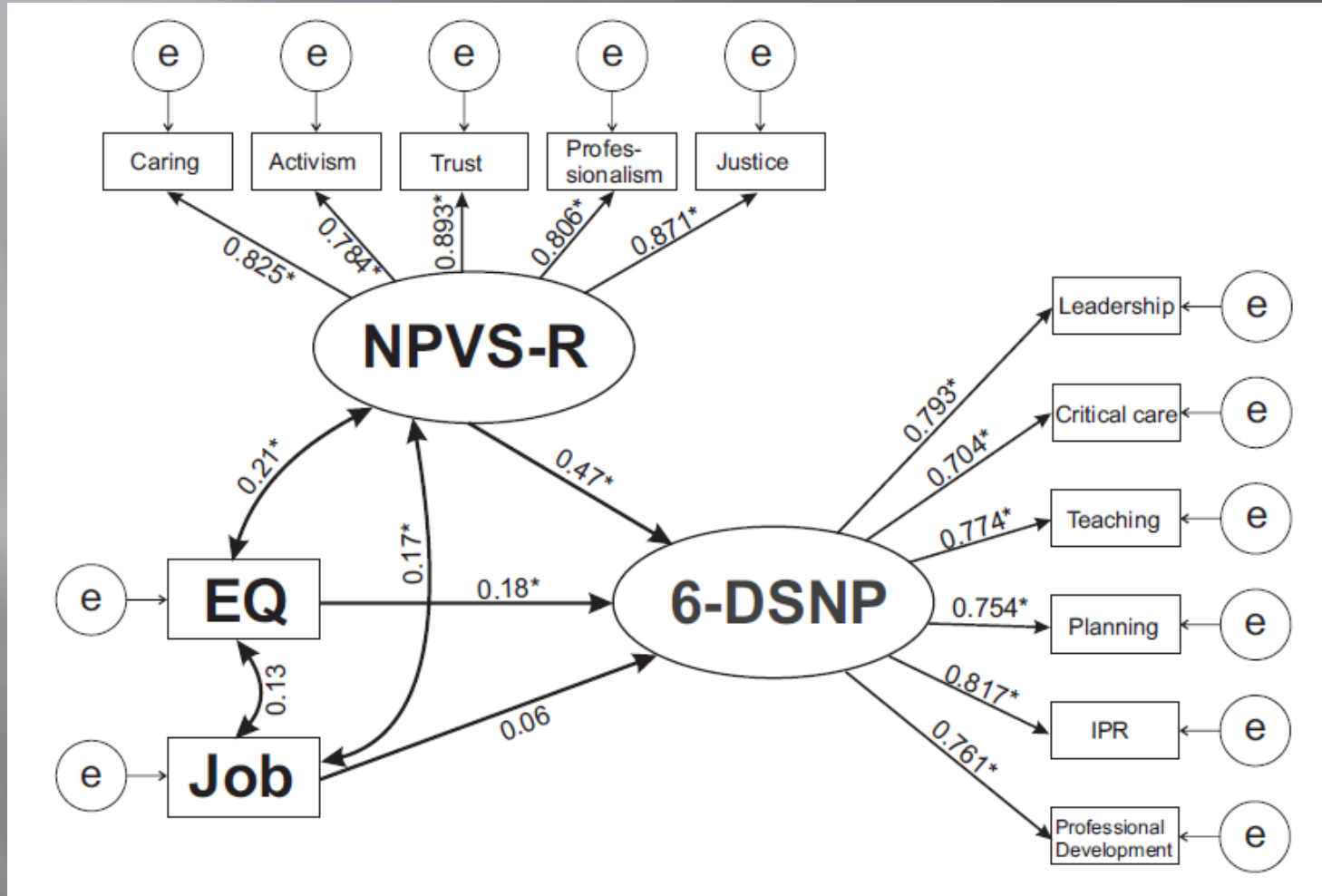
Structural Equation Modeling

Each of the six dimensions of 6-DSNP was estimated by testing causal pathways between work performance and the selected intrapersonal characteristics

All dimensions of professional values had a statistically significant, positive relationship of practical importance with all dimensions of work performance

Empathy Quotient and Job Involvement had statistically significant relationship with professional values with small effect

Characteristics & work performance



0.01 = small effect; 0.1 = medium effect; 0.25 = large effect
 Statistical significance indicated with *

Predictions about the relationship between intrapersonal characteristics, work performance and caring behaviours

Derived from the structural equation models:

- ▣ Importance of professional values (NPVS-R) as predictor for the dimensions of work performance (6-DSNP) is two to three times that of any other predictor that can be added to the equation on a 10% level of significance. Therefore, if the nurses have a high professional values orientation (NPVS-R), there is a 90% probability that there would be a positive influence on their work performance
- ▣ No predictor of caring behaviours found

Limitations

- ▣ Instruments used as self-report measure
- ▣ It was not possible to randomly select nurses to participate in the study - this limits the opportunity to generalise findings to the general population
- ▣ High ratings of the self-report questionnaire on work performance completed by nurse respondent restrict the range and therefore also possible correlations with other variables
- ▣ Patient participation was voluntary – only positive patients may have participated

Recommendations

- ▣ Management – in-service to promote strengthening of professional values, not only clinical skills
- ▣ Education – analyze content of programs; strengthen teaching & learning of professional values
- ▣ Research – extend study to broader population; investigate reasons for low effect of other selected characteristics; development and/or change of professional values over time
- ▣ Policy – recruitment and retention strategies

Conclusion

Nurses' intrapersonal characteristics do influence work performance and caring behaviors, in particular their professional values:

- ▣ Results indicated that there were statistically significant relationships between nurses' intrapersonal characteristics and their work performance and caring behaviors but that some of those relationships were weak which makes it not significant in practice
- ▣ A strong positive relationship was found between professional values and work performance and caring behaviors and professional values presents as predictor of nurses' work performance

Thank you!

Nelouise Geyer

Who Am I ?

