

Development and Testing of the Nurse Manager EBP Competency Scale

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BACKGROUND & SIGNIFICANCE

Nurse managers (NM) are ideally situated within an organization to influence implementation and use of evidence-based practices (EBP). However, few studies have examined the role of NMs in promoting EBPs and no instruments are available to measure NM EBP competencies. To explicate the relationship among the role of NMs, the practice culture that fosters application of evidence, and patient outcomes, it is imperative that a valid and reliable instrument to measure NM EBP competencies is developed for use in future research.

PURPOSE

To develop a reliable and valid tool to measure competencies of nurse managers regarding EBP.

METHODS

- Premised on the PARIHS context domain and prior research, 16-items on a Likert response scale (0= not competent; 1= somewhat competent; 2= fully competent; 3= expertly competent) were developed.
- 130 inpatient and ambulatory NMs from one academic medical center and two community hospitals were invited to participate.

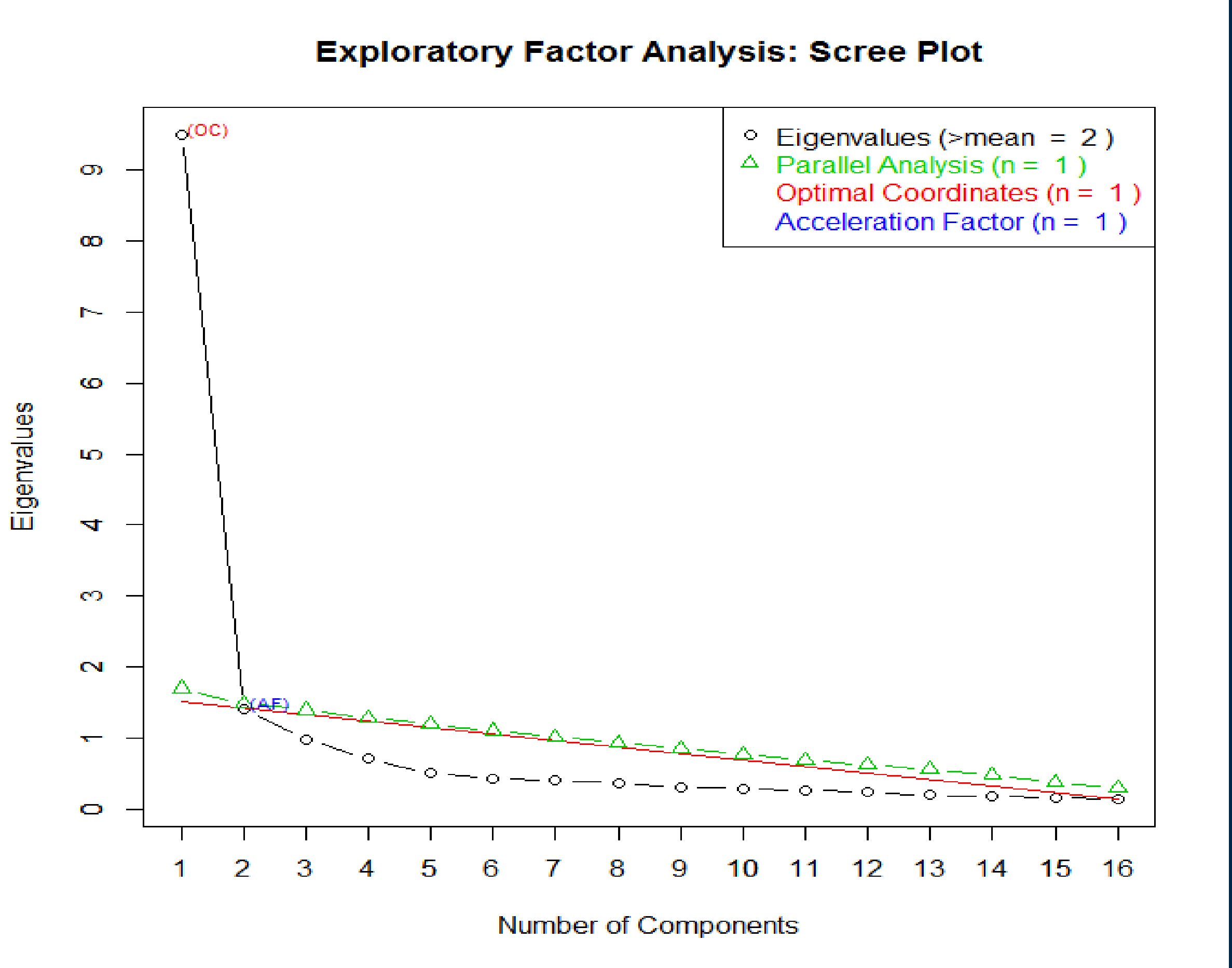
DATA ANALYSES

- Exploratory factor analysis (EFA) with Varimax rotation was used for principle components analysis and to evaluate validity.
- Cronbach’s alpha was used to evaluate reliability of the total scale and subscales identified in EFA.



RESULTS

Sample Demographics	
N	83
Unit Type, n (%)	
Inpatient	49 (59)
Ambulatory	34 (41)
Inpatient Unit Type, n (%)	
Adult Medical-Surgical	22 (44.9)
Pediatrics	9 (18.4)
Adult ICU	6 (12.2)
Behavioral Health	4 (8.2)
Women’s Health	2 (4.1)
Other	6 (12.2)
Ambulatory Unit Type, n (%)	
Care Clinic	20 (58.1)
Perioperative	7 (22.6)
Emergency/Flight	7 (19.3)
Years as NM on Current Unit, n (%)	
≤5 years	44 (53)
>5 ≤10 years	19 (22.9)
>10 years	18 (21.7)
No response	2 (2.4)
Total Years as NM, n (%)	
≤5 years	32 (38.5)
>5 ≤10 years	12 (14.5)
>10 years	38 (45.8)
No response	1 (1.2)
Education Level, n (%)	
Diploma	2 (2.4)
Associates	8 (9.6)
Bachelors	19 (22.9)
Masters	53 (63.9)
No response	1 (1.2)



Reliability Analysis

Total Scale
Cronbach α = .95

Subscale 1 (items 1-6)
EBP Knowledge
Cronbach α = .90

Subscale 2 (items 7-16)
EBP Activity
Cronbach α = .94

Nurse Manager EBP Competency Scale: Factor Loadings		
	<i>I am able to...</i>	
		Factor 1 Factor 2
1	Define evidence-based practice in terms of evidence, expertise, and patient values.	.683 .38
2	Locate primary evidence in bibliographic databases using search terms.	.81 .12
3	Critically appraise original research reports for practice implications.	.796 .254
4	Recognize ratings of strength of evidence when reading systematic reviews and evidence summary reports.	.697 .446
5	Identify key criteria in well-developed evidence summary reports using existing critical appraisal checklists.	.737 .359
6	Differentiate among primary evidence, systematic reviews, and evidence-based guidelines.	.807 .324
7	Access clinical practice guidelines on various clinical topics.	.533 .588
8	Participate on a team to develop evidence-based practice recommendations for my unit(s), clinic(s), and/or organization.	.536 .624
9	Ensure the delivery of care on my unit(s) or clinic(s) aligns with evidence-based practice recommendations.	.293 .762
10	Assist in implementing evidence-based practice changes in my organization, unit(s), or clinic(s).	.137 .832
11	Use evidence to inform clinical decision-making.	.407 .729
12	Evaluate processes and outcomes of evidence-based practice changes.	.522 .671
13	Participate in resolving issues related to implementing evidence-based practice.	.378 .787
14	Use audit and feedback of data as an implementation strategy to promote use of evidence-based practice in my unit(s) or clinic(s).	.512 .609
15	Use criteria about evidence-based practice in performance evaluation of staff.	.247 .812
16	Use criteria about evidence-based practice in screening and hiring staff.	.263 .734



SUMMARY AND CONCLUSIONS

- 83 nurse managers completed the scale resulting in a 63.8% overall response rate.
- EFA resulted in a 16-item scale with two subscales based on Eigenvalues >1, EBP Knowledge (n= 6 items, α =.90) and EBP Activity (n= 10 items, α =.94).
- Cronbach’s alpha for the entire scale was .95.
- The Nurse Manager EBP Competency Scale is a brief, psychometrically sound measure of NM EBP competency.
- As the first measure of this context element, the scale can enhance our understanding in future studies regarding how NM EBP competency affects EBP implementation.

ACKNOWLEDGEMENTS

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Leading the way.