



*Portuguese version of the Evidence-based Practice Questionnaire:
One exploratory approach*

Rui Pereira

Escola Superior de Enfermagem da Universidade do Minho – ruipereira@ese.uminho.pt

A. Cristina Guerra

Centro Hospitalar do Porto

M.^a José Peixoto

Escola Superior de Enfermagem do Porto

Teresa Martins

Escola Superior de Enfermagem do Porto

M.^a Céu Barbieri

Escola Superior de Enfermagem do Porto / ICBAS – Universidade do Porto

A. Vaz Carneiro

CEMBE / Faculdade de Medicina da Universidade de Lisboa



INTRODUCTION / BACKGROUND:

- The evidence-based nursing practice (EBNP) is defined as the process by which nurses make clinical decisions using the best available scientific evidence, using their clinical experience and customer preferences in the context of available resources;
- Currently are unavailable for use in the Portuguese context a wide range of validated instruments that enable an accurate assessment and in a systematic way the skills of nurses regarding EBNP, allowing structuring and implementing intervention strategies to encourage their sustained and widespread adoption .

INTRODUCTION / BACKGROUND (continuation):



- The *Evidence Based Practice Questionnaire* was developed in 2006 by Upton & Upton in the UK and its conception searched to gather information and opinions about the use of evidence-based practices by health professionals;

STUDY OBJECTIVE:

- Proceed with the translation and linguistic/cultural validation in the Portuguese context of the “*Questionário de Eficácia Clínica e Prática Baseada em Evidências*” (QECPBE), enabling:
 - ✓ The evaluation of practices, attitudes and knowledge / skills and competencies;
 - ✓ Underpin subsequent interventions aimed at improving proficiency in this area from nurses.

METHODS:



- The **QECPBE** is a self-report instrument whose original version includes 24 items assessed through a semantic differential scale organized in three dimensions.
- The first component evaluates the **practices** in the second component are evaluated the **attitudes** and the third component aims to assess **Knowledge / Skills and Competencies**.
- Through an accidental sampling we developed a cross-sectional methodological study in an academic hospital center in the north of Portugal.
- We assured all formal commitments: the authors and the organization including the ethics committee.

METHODS (continuation):

- A translation and a retroversion according to usual standards was carried out:
 - ✓ Clarified the semantic equivalent of some terms;
 - ✓ We used an experts panel to examine the conceptual equivalence of various items, obtaining a final result by consensus;
 - ✓ Retroversion was developed by an independent translator with analysis of agreement and differences.
- To determine the psychometric characteristics of the QECPBE we used the principal component analysis (PCA) with orthogonal rotation according to the *Varimax* method, followed by confirmatory factor analysis (CFA);
- The internal consistence was determinate by the Cronbach's alpha value;
- Data collection occurred between December (2013) and February (2014).



RESULTS:

Sample characteristics according to gender, age and year of conclusion of pre-graduated formation

GENDER	Male		Female		Total	
	n	%	n	%	n	%
Total	79	22,0	279	78,0	358	100
AGE		n		%		
20-29		79		22		
30-39		172		48		
40-49		75		21		
50-59		32		9		
Total	358		100			
CONCLUSION OF PRE-GRADUATED FORMATION						
Graduation year		n		%		
≤ 2000		126		35		
2001 - 2010		57		16		
≥ 2011		175		49		
Total	358		100			

RESULTS (continuation):



- The factorial exploratory analyses through the PCA suggests five dimensions that explain 65,78% of the total variance.
- Forcing in to three dimensions, in line with what the authors of the original questionnaire propose and rejecting an item (P7) for presenting an anomalous behavior of overlap in Components 1 and 2, we obtain a matrix that explains 55.86% of the total variance.
- In this refinement, we found the following values of Cronbach's alpha for each of the dimensions analyzed: Practices ($\alpha = 0.74$); Attitudes ($\alpha = 0.75$); Knowledge / Skills and Competencies ($\alpha = 0.95$).

RESULTS (continuation):

Principal Component Analysis on the obtained three-dimensional version.

(Please Note: The three overlapping dimensions presented are those proposals by the authors of the original study, being composed by the same items except the excluded - P7).

Item	Componentes		
	1	2	3
6. Partilhou essa informação com colegas	-,003	,580	-,036
5. Avaliou os resultados da sua prática	,122	,652	,039
4. Integrou as evidências que encontrou na sua prática	-,002	,692	,043
3. Analisou criticamente e segundo critérios explícitos, qualquer literatura que tenha encontrado	,019	,668	,017
2. Localizou as evidências relevantes depois de ter formulado a pergunta	,007	,718	,044
1. Formulou uma pergunta de partida claramente definida, como início de um processo para preencher essa lacuna	,018	,642	,025
11. Competências de pesquisa	,799	,031	-,027
12. Competências em TI (Tecnologias de Informação)	,700	,042	,002
13. Monitorização e revisão de competências práticas	,798	-,016	-,074
14. Conversão das suas necessidades de informação numa pergunta de investigação	,729	-,092	-,065
15. Perceção dos principais tipos e fontes de informação	,834	,038	-,029
16. Capacidade de identificar lacunas na sua prática profissional	,732	,067	,049
17. Saber como obter as evidências	,816	,004	,011
18. Capacidade de analisar, de forma crítica, as evidências segundo normas definidas	,865	,026	,011
19. Capacidade de determinar a validade (aproximação da verdade) do material	,831	-,022	-,021
20. Capacidade de determinar a utilidade (aplicabilidade clínica) do material	,843	,037	,029
21. Capacidade de aplicar a informação a casos individuais	,835	,043	,010
22. Partilha de ideias e informação com colegas	,725	,088	,147
23. Divulgação de novas ideias sobre os cuidados aos colegas	,703	,078	,110
24. Capacidade de rever a sua própria prática	,744	,054	,094
8. Não me agrada que a minha prática clínica seja questionada / Acolho com agrado as perguntas sobre a minha prática	,051	-,031	,770
9. A prática com base em evidências é uma perda de tempo / A prática baseada em evidências é essencial à prática profissional	-,051	,028	,853
10. Mantenho-me fiel a métodos testados e aprovados em vez de mudar para algo novo / A minha prática mudou devido às evidências que encontrei	,079	,121	,815

RESULTS (continuation):

- Using the **Confirmatory Factor Analysis**, we tested the model suggested by the exploratory factor analysis (EFA) that included three latent variables and 20 observed variables, having obtained an unsatisfactory adjustment to the model.
- By reading the modification indices we tested a new model excluding items P22; P23 & P24, thereby obtaining a good fit: $\chi^2(167) = 520,009$; $p = 0,0001$; $\chi^2_{df} = 3,114$; CFI = 0,908; GFI = 0,865; PCFI = 0,798; PGFI = 0,678; RMSEA = 0,077 (IC90%=0,07-0,08).
- All factorial loads between the latent variables and the observed variables were statistically significant.

	Componentes		
	Conhecimento/ Habilidades, Competências	Práticas	Atitudes
P6		,578	
P5		,653	
P4		,693	
P3		,670	
P2		,718	
P1		,643	
P11	,817		
P12	,723		
P13	,805		
P14	,762		
P15	,853		
P16	,702		
P17	,835		
P18	,871		
P19	,849		
P20	,850		
P21	,823		
P8			,776
P9			,855
P10			,822

DISCUSSION:



- The QECPBE-20 presents some limitations concerning the assessment of the following dimensions:
 - ✓ Knowledge bases over clinical practice;
 - ✓ Changing the practice sustained in evidence;
 - ✓ Facilitators for the change and also the skills;
 - ✓ The barriers towards EBNP;
- Therefore its use must be complemented by other instruments available and validated for the Portuguese reality;
- Also consider the limitations associated to the context of professional practice by the nurses who collaborated in this study (hospital-oriented organization).

CONCLUSION / PRACTICE IMPLICATIONS:



- The analysis demonstrated empirical evidence that the questionnaire is valid and suitable for use in the Portuguese context. Additionally, it has a robust internal consistency;
- Face of the psychometric characteristics determined, we assume that we can recourse to QECPBE-20 for the evaluation of the dimensions presented. We recommend the pursuit of additional studies showing greater support in their use in Portugal;
- The evaluation of practices, attitudes and knowledge / skills / competencies should be a component of a structural support in the definition of tailored interventions and targeting specific groups and organizational contexts, aiming at the promotion and development of a EBNP.



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Gracias por su atención!

ruipereira@ese.uminho.pt