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

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

<table>
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<th>GENDER</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
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<td></td>
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**AGE**

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<td>Total</td>
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**CONCLUSION OF PRE-GRADUATED FORMATION**

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<td>2001 - 2010</td>
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<td>≥ 2011</td>
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<td>49</td>
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<tr>
<td>Total</td>
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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).
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: $\chi^2(167) = 520,009; p = 0,0001; \chi^2df = 3,114; CFI = 0,908; GFI = 0,865; PCFI = 0,798; PGFI = 0,678; RMSEA = 0,077$ (IC90%=0,07-0,08).

• All factorial loads between the latent variables and the observed variables were statistically significant.
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.
Gracias por su atención!

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