Psychometric Evaluation of the Nurse's Retention Positive Energy Instrument (NRPEI): A Confirmatory Analysis

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Purpose:

The shortage of professional nurses is a global issue. Improving the retention of nurses is necessary to reduce this shortage. There is a need for a valid and reliable instrument to assess the nurses' intrinsic psychological attributes from which may recruit the nurses who are willing to stay in nursing practice.The **purpose** of this study was to develop and psychometrically test a new instrument for measuring nurses' retention positive energy which is an intrinsic psychological strength, not easily-changed with external environment.

Methods:

This methodological study was conducted through three phases. All participants (N= 947) recruited from three medical centers and three regional hospitals in Taiwan were divided into three samples based on the time of entry into the study. Sample 1 (n1=392) were used for item analysis and explanatory factor analysis (EFA) and Sample2 (n2=287) were used for confirmatory factor analysis (CFA). Sample 3 (n3=268) were used for cross-validation of the confirmatory model derived from Sample 2 data. Construct validity was determined by CFA. Tests of internal consistency was used to assess the reliability of the NRPEI.

Results:

The EFA resulted in a three-factor solution: (1) active and persevere personality, (2) positive feedback, (3) passion. The three factors accounted for 67.87% of the total variance. The proposed three-factor model was confirmed by the results of CFA. Fit indices indicated that this model fits the data best, providing support for the factorial validity of the NRPEI. This model was further cross validated in the third sample. The results of cross-validation provided further evidence for the construct validity of the NRPEI with 25 items. The Cronbach's alphas coefficient of of the NRPEI subscales were 0.95(subscale 1: active and persevere personality), 089(subscale 2: positive feedback), 0.92(subscale 3: passion) and 0.96 for the total scale, which indicated good reliability.

Conclusion:

Empirical findings suggest that the NRPEI is a reliable and valid instrument to assess nurses' retention positive energy. Further psychometric testing across cultures is recommended. The NRPEI could be used for the assessment tool which assists the nurse managers to recruit the nurses who possess the potential attributes of positive energy to engage in the clinical practice steadfastly. This recruitment through NRPEI might help the nurse managers achieve a better human resources management.

Title:
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Keywords:
confirmatory factor analysis, positive energy and retention

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Abstract Summary:
LEARNING OBJECTIVES 1. The learners could learn the process of developing and testing an instrument. 2.The learner can utilize the instrument verified in this study to assess the nurses' retention positive energy.

Content Outline:
1.Introduction :

There is a need for a valid and reliable instrument to assess the nurses' retention positive energy from which may recruit the nurses who are willing to stay in nursing practice.

2. Body :

   i.   The Nurse's Retention Positive Energy Instrument (NRPEI) is developed through a series of processes including conducting focus group interviews, expert validity, pilot test, EFA and CFA.
   ii. The EFA resulted in a three-factor solution: (1) active and persevere personality, (2) positive feedback, (3) passion.
   iii. The three-factor model was confirmed by the results of CFA.

3. Conclusion:

Empirical findings suggest that the NRPEI is a reliable and valid instrument to assess nurses' retention positive energy.

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