MEASUREMENT OF BEHAVIORS RELATED TO AUTONOMY IN PRACTICE

THE DEMPSTER PRACTICE BEHAVIORS SCALE (DPBS)

DESCRIPTION

The Dempster Practice Behaviors Scale (DPBS) was constructed to measure the extent of autonomous behaviors in practice. The DPBS is a 30-item instrument developed with a Likert-type format and a five point scaling and summated scoring basis. It focuses on overt and covert behaviors, action, and conduct related to the extent of an individual’s autonomy in a practice setting. This tool is generalizable within nursing and outside of nursing. To avoid possible response bias, the word autonomy was not included in the title of the measure. Rationale for construction of the DPBS arose from the fact that there is a dearth of valid and reliable instruments for measurement of autonomy and no tools specifically designed to assess behaviors and action related to autonomy in practice.

INSTRUMENT DEVELOPMENT AND TESTING

An innovative process of retroduction and triangulation was employed for instrument development. Theoretical literature and empirical studies of autonomy were critically reviewed for conceptual analysis and identification of dimensions. This deductive pursuit was supplemented by an inductive study, utilizing a grounded theory approach, with in-depth interviews of 28 subjects to elicit qualitative data associated with autonomous practice behaviors.

A conceptual schema developed from the retroductive triangulation of deductive and inductive findings identified four theoretical unmeasured dimensions of readiness, empowerment, actualization, and valuation related to autonomy in practice. Guided by the conceptual schema, item formulation emerged through content analysis of the qualitative study data and the theoretical/empirical literature.

The initial 40 item DPBS, along with three existing instruments to test for convergent and discriminant validity, was distributed to 1,000 practicing registered nurses. There was a 57% (N=569) return rate from 48 states and the District of Columbia. Nurses in advanced practice (e.g., nurse practitioners) comprised 60% of the returns with other categories of registered nurses making up the remaining 40%. Practice sites and specialty areas were diverse.

PSYCHOMETRIC PROPERTIES

Content Validity: The Content Validity Index (CVI) of the initial 40 item DPBS, calculated from ratings of seven content experts, was the maximum of 1.00.

Factorial Validity: Based on the 569 usable responses, exploratory and confirmatory factor analysis including principal components factoring with orthogonal varimax rotation and alpha factoring (all factoring using minimum salient loadings of .45) reduced the DPBS to 30 items.

Reliability Analysis: Reliability analysis evidenced a Cronbach’s alpha (standardized item alpha) for the 30-item instrument of .95 with an overall inter-item correlation mean of .39. The corrected item total correlation range was .45 to .73.
**Construct Validity:** Construct validity was established through construction of a multitrait-multimethod (MTMM) matrix. Through the MTMM matrix, convergent validity of the DPBS was demonstrated with another autonomy tool of a different measurement method and discriminant validity was demonstrated with tools of different traits and measurement methods.

**Multidimensionality:** While empirical multidimensionality of the DPBS was originally proposed, it was not supported due to moderate to high correlations of the four theoretically based subscales of readiness, empowerment, actualization, and valuation.

Therefore, the empirically unidimensional, yet theoretically multidimensional, DPBS is proven to have strong initial psychometric properties. It is felt that the DPBS has potential to expand measurement parameters related to autonomy in practice for the benefit of nursing and other professions.

**SCORING**

For general scoring, the higher the score, the greater the extent of autonomy. The scoring range is 30 – 150.

Several items of the DPBS need to be reverse scored. The items are 8, 13, 17, 26, 28. Reverse scored means those specific items need to be reversed… i.e., if a response is 1 it needs to be reversed to a 5; if it is 2 it becomes a 4; a 3 remains a 3; a 4 is reversed to a 2; and a 5 is reversed to a 1.

**THEORETICAL SUBSCALES**

Following are the items that correspond to the theoretical dimensions – or the 4 subscales if the DPBS is to be examined as multidimensional instead of unidimensional.

- **Readiness:** 2, 4, 6, 7, 11, 12, 20, 21, 22, 27, 29
- **Empowerment:** 8, 13, 15, 17, 24, 26, 28
- **Actualization:** 1, 3, 9, 10, 14, 16, 18, 25, 30
- **Valuation:** 5, 19, 23

**AVAILABILITY**

Interested researchers are encouraged to use the DPBS. Please request permission for use. The author of the DPBS also requests 1) a summary of validity and reliability of the DPBS resulting from its use in a study; 2) outcomes of any study completed that included the DPBS; and 3) information on any publications or papers that result from such studies.

To use the DPBS please contact:

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