A Factor Analysis of the Practice Integration Profile
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Introduction

- A valid, reliable measure of integrated primary care and behavioral health services would be helpful for describing variations in approaches to integration. For example:
  - Comparing the differences between Practice A and Practice B,
  - Measuring changes in Practice A from Time 1 to Time 2
- The Agency for Healthcare Research and Quality’s (AHRQ) Lexicon for Behavioral Health and Primary Care Integration was grounded in expert opinion and provides a taxonomy for describing variations in integrated care.
- The Practice Integration Profile (PIP) is a 30-item practice-level measure of primary care and behavioral health integration derived from the AHRQ Lexicon.
- Prior empirical validation work has demonstrated the construct validity, content validity, internal consistency, and test-retest reliability of the PIP.

Study Goal:
Complete an exploratory factor analysis of the PIP to inform the creation of PIP 2.0, with improved validity and reliability.

Methods

- A convenience sample of 735 providers and staff of 357 unique primary care practices across the United States completed the PIP between September 2014 and January 2017.
- An initial exploratory factor analysis using SPSS version 24 assessed the fit of PIP survey items into the PIP’s six domains.
- The factor analysis used default settings to determine the number of factors.
- Additional factor analyses were conducted to match the six conceptual domains of the PIP and explore the extent to which alternate domains could more accurately describe practice integration.
- Cronbach’s alpha coefficients were calculated for all composite measures in factor analyses to assess internal consistency reliability.

Findings

- Five of the six domains in the PIP 1.0 perform well. The PIP’s domains, originally derived from expert opinion, align well with empirically observable domains of integration.
- A proposed, revised PIP has five domains, each with Cronbach’s alpha coefficients greater than 0.80, which is more than adequate for making group comparisons.
- In this revised PIP most of the alpha coefficients approached or exceeded 0.90, which has been proposed as a threshold suggesting redundancy.
- Minor modifications to the PIP are recommended to further improve its performance.

Results

- Item Factor Loadings and Item Distribution in Original PIP, Six Factor Model
- Item Factor Loadings and Item Distribution in Original PIP, Five Factor Model
- Item to Scale Correlations (Corrected for Overlap)

Recommended PIP Improvements

- Combine the Workspace Arrangements and Infrastructure domain and the Integration Methods domain into a new six item domain
- Move the item from the Clinical Services domain, “we offer referral to non-clinical services outside of our practice” to the Practice Workflow domain
- Move two items from the Practice Workflow domain to the Patient Engagement domain. These items are:
  - “use standard protocol for patients who need/can benefit from integrated BH”
  - “use registry tracking for patients with identified BH issues”

Future Directions for PIP

- A re-evaluation of the PIP’s inter-rater reliability, test-retest reliability, construct validity, and discriminant validity should be repeated with a larger data set.
- Structured cognitive interviews should be conducted to explore respondents’ interpretations of each item and to improve the PIP’s reliability and validity.
- The feasibility of a psychometrically sound short-form version of the PIP should be explored.

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