



# Patient-Centered Care and Biopsychosocial Model in Podiatric Medicine

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## Abstract

**Patient-centered care (PCC)** and the **biopsychosocial model (BPS)** of healthcare delivery are models of care that take into account active involvement of patients, their families and their psychological and social environments. **Empathy** is at the core of both, **patient-centered care** and the **biopsychosocial model**, and numerous scientific studies have demonstrated many benefits of provider's empathy in outcomes for both the patient and the provider. Paradoxically, empathy has been shown to decline among medical and dental students during their educational training. The Association of American Medical Colleges has stated that one task of medical education is to train selfless physicians who "must be compassionate and empathetic in caring for patients." Empathy, patient-provider communication skills, patient-centered care, diversity training, and the biopsychosocial model of healthcare delivery must take a revitalized role in curriculum development. In this context, the question then arises, "What is used to gauge the depth to which a podiatrist actually implements PCC, the BPS model, and empathy in patient care?" In this presentation, the most commonly used metrics will be analyzed to advocate for a call for action in the podiatric medical education community.

## Objective

To conduct a literature review in the field of podiatric medicine of assessment tools and metrics of:

- 1) biopsychosocial model
- 2) patient-centered care
- 3) empathy

## Key Definitions

- **BPS:** "The BPS model is both a philosophy of clinical care and a practical clinical guide. Philosophically, it is a way of understanding how suffering, disease, and illness are affected by multiple levels of organization, from the societal to the molecular. At a practical level, it is a way of understanding the patient's subjective experience as an essential contributor to accurate diagnosis, health outcomes, and humane care." (Francesc Borrell-Carrio, 2004)
- **PCC:** "Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions." (National Academy Press, 2001)
- **Empathy:** Hojat et al. defined empathy as "a cognitive attribute that involves an ability to understand the patient's inner experiences and perspective and a capability to communicate this understanding". (Hojat, 2002)

## Methods

Study Design: Comprehensive Literature Search based on the following parameters:

- a. Inclusion/Exclusion Criteria
  - i. Podiatry or foot-care related
  - ii. Printed in English
  - iii. Usage of a quantitative or qualitative assessment tool for the related key words (bps, pcc, empathy, etc.)
- b. Search strategy
  - i. Databases: PubMed, Google Scholar
  - ii. Search Terms:
    1. podiatr\* AND (biopsychosoc\* OR psychosoc\*)
    2. podiatr\* AND ("patient centered care" OR "patient-centered care")
    3. podiatr\* AND (empath\*)
  - iii. Reference list of articles screened for additional eligible articles
- c. Evaluation
  - i. Determine:
    1. Podiatry Specific, Adapted, General (but used in a podiatry related study)
    2. Timeframe: Pre-treatment, post-treatment, predispositional, unspecified
    3. Related diseases
    4. Searchable keywords that relate to metric
    5. Reference for primary creation paper
    6. Reference for validity testing and reliability testing of this assessment tool
    7. Subjective take on Pros/Cons of tool

## Results

Evaluation samples of assessment tools and metrics

Name	ABLE Presurgical Assessment Tool/ABLE Perioperative Assessment
Reference of paper using tool/metric	Althof, J. E., & Beasley, B. D. (2003). Psychosocial management of the foot and ankle surgery patient. <i>Clinics in Podiatric Medicine and Surgery</i> , 20(2), 199-211.
Pod Specific/Adapted/General	General Adapted
Pre-treatment/Post-treatment/Predispositional/Unspecified	Presurgical
Related Diseases	Ambiguous
Keywords	Medical/Emotional, Mental/Home, Financial
Reference for assessment tool (validity, reliability)	There have been no publications testing the reliability/validity of this tool.
Pros (subjective)	This tool "elicits the common predictors of poor surgical outcome and allows the surgeon to weigh the need for psychosocial intervention based on the prevalence of the factors and the planned procedure." It sets forth the framework for the surgeon to assess the patient on their biopsychosocial profile that may have previously been discarded or neglected.
Cons (subjective)	The qualitative nature of the assessment is addressed by the author: "inherent nature of the designed subjectivity within the algorithm, however, prevents any quantitative validation." This narrows the objective reviewer's ability to discern what is causation or just correlation.

Name	Patient Benefit Index
Reference of paper using tool/metric	Blome, C., et al. (2015). Patient-relevant needs and treatment goals in nail psoriasis. <i>Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation</i> .
Pod Specific/Adapted/General	Adapted
Pre-treatment/Post-treatment/Predispositional/Unspecified	Pre-treatment
Related Diseases	Cellulitis, Pruritus, Arthritis, Nail Psoriasis
Keywords	Patient Preferences, Quality of Life, Treatment Goals, Shared Decision-Making
Primary reference for assessment tool	Augustin, M., et al. (2009). The patient benefit index: A novel approach in patient-defined outcomes measurement for skin diseases. <i>Archives of Dermatological Research</i> , 301(8), 561-571.
Reference for assessment tool (validity, reliability)	Feuerhahn, J., et al. (2012). Validation of the patient benefit index for the assessment of patient-relevant benefit in the treatment of psoriasis. <i>Archives of Dermatological Research</i> , 304(6), 433-441.
Reference of other papers using test (from reference mining technique)	Blome, C., Augustin, M., Siepmann, D., Phan, N. Q., Rustenbach, S. J., & Stander, S. (2009). Measuring patient-relevant benefits in pruritus treatment: Development and validation of a specific outcomes tool. <i>The British Journal of Dermatology</i> , 161(5), 1143-1148.
Pros (subjective)	An importance-weighted global score can be calculated from all items, quantifying treatment benefit from the patient's perspective.
Cons (subjective)	A limited number of standardized treatment goals cannot cover each goal of each afflicted person, which includes outcomes that are rarely considered.



Name	Consultation and Relational Empathy (CARE)
Reference of paper using tool/metric	Chen, J. Y., et al. (2015). Assessing medical student empathy in a family medicine clinical test: Validity of the CARE measure. <i>Medical Education Online</i> , 20, 27346.
Pod Specific/Adapted/General	Adapted
Pre-treatment/Post-treatment/Predispositional/Unspecified	Unspecified - medical students
Related Diseases	None
Keywords	Empathy, Psychometrics
Primary reference for assessment tool	Mercer, S. W., et al. (2004). The consultation and relational empathy (CARE) measure: Development and preliminary validation and reliability of an empathy-based consultation process measure. <i>Family Practice</i> , 21(6), 699-705.
Reference for assessment tool (validity, reliability)	Mercer, S. W., et al. (2004). The consultation and relational empathy (CARE) measure: Development and preliminary validation and reliability of an empathy-based consultation process measure. <i>Family Practice</i> , 21(6), 699-705.
Reference of other papers using test (from reference mining technique)	Pollak, K. I., et al. (2015). Patient and caregiver opinions of motivational interviewing techniques in role-played palliative care conversations: A pilot study. <i>Journal of Pain and Symptom Management</i> , 50(1), 91-98.
Pros (subjective)	Since the patients complete the CARE questionnaire (2nd person assessment), physicians can receive direct feedback from their patients. This measure is purely based on the physicians' interactions with their patients; it is not based on technical care (clinical examinations, diagnoses, treatment, etc.), which could alter results depending on the outcome.
Cons (subjective)	Results of the questionnaire can be variable depending on the background of the patients. Patients in the US are very diverse, and their interpretation of the questions and their interaction with their physician can be influenced by cultural, socio-economic, and educational backgrounds.



Name	Jefferson Scale of Physician Empathy
Reference of paper using tool/metric	Barbosa, P., et al. (2013). Mindfulness-based stress reduction training is associated with greater empathy and reduced anxiety for graduate healthcare students. <i>Education for Health (Abingdon, England)</i> , 26(1), 9-14.
Pod Specific/Adapted/General	Adapted
Pre-treatment/Post-treatment/Predispositional/Unspecified	Unspecified - for students
Related Diseases	None
Keywords	Physician, Empathy, Podiatry, Student, Psychometric
Primary reference for assessment tool	Hojat, M., et al. (2002). Empathy in medical students as related to academic performance, clinical competence and gender. <i>Medical Education</i> , 36(6), 522-527.
Reference for assessment tool (validity, reliability)	Hojat, M., et al. (2002). Empathy in medical students as related to academic performance, clinical competence and gender. <i>Medical Education</i> , 36(6), 522-527.
Reference of other papers using test (from reference mining technique)	49 articles
Pros (subjective)	One of the only tests designed for the sole purpose of measuring empathy, and is one of the most extensively used, studied, and cited scales for measuring empathy.
Cons (subjective)	The subjective nature of a survey allows the person to manipulate their score to seem more/less empathetic.



## Conclusion

- Very limited number of publications in the field of podiatric medicine were identified utilizing assessment tools and metrics of the biopsychosocial model, patient-centered care, and empathy.
- These measurement methods should to be compared for usefulness in different aspects of practice and research for the field of podiatry.
- There is a need to standardize the many qualitative and quantitative assessment tools used throughout the literature. A standardization could serve as a master reference for future podiatrists, researchers and students looking to use these tools for the betterment of patient care.
- A Call for Action to podiatric medical education, both at the DPM and CME levels, is needed to increase knowledge and awareness of the many aspects of PCC, the BPS model and empathy in podiatric care.

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