

Outcome Measures for PLP

There are no specific outcome measures for assessing phantom limb pain; however there are general pain assessment measures commonly used, such as those listed below. Unfortunately, there is limited research to support the validation of the outcome measures listed below with phantom limb pain.

The McGill Pain Questionnaire: can be used to evaluate a person experiencing significant pain; it can be used to monitor the pain over time and to determine the effectiveness of any intervention. The MPQ was developed to encompass a variety of pain sources and it includes a wide array of descriptors. It includes the sensory, affective and evaluative qualities of pain.¹ My research findings were unsuccessful in finding the validation of MPQ with phantom limb pain; however, several studies regarding amputations noted used MPQ as outcome measures because MPQ is a universal pain scale measure.

Visual Analog Scale: The Visual Analog Scale (VAS) is a 10 point scale with 0 being no pain and 10 the worst pain imaginable; patients are asked to rate the intensity of their pain on a line (usually a horizontal line). Similar to the MPQ, VAS is a generic pain rating scale and maybe used for a variety of pain sources. This pain scale is often used when only measuring intensity of pain for it does not consider factors that contribute to pain or pain interference aspects.

Numeric Rating scales: similar to the Visual Analog Scale in its unidimensional aspect, only measures pain intensity. Clients are asked to rate their pain on a given scale. These scales have shown significant correlations with other measures of pain intensity (such as the visual analog scale) as well as sensitivity to treatments that impact pain intensity.²

Brief Pain Inventory: measures both the intensity of pain and interference of pain (known as reactive dimension) in the patient's life. It also inquires about pain relief, pain quality, and patient perception of the cause of pain. Although BPI was developed to measure pain in cancer patients, this outcome measure has been validated for non-cancer pain. The BPI has shown reliability over short intervals and validity in different disease states and in participants from various cultures.³

Chronic Pain Grade Questionnaire: A valid and reliable use for a general population as a self-completion questionnaire. However, reliability and validity in longitudinal studies still requires further research. This measure is also highly correlated SF-36.⁴

The Cambridge Phantom Limb Profile- a questionnaire concerning phantom limb pain, phantom limb sensation, and stump pain. For each variable, intensity, frequency, and duration of the phenomenon were assessed using rating scales varying from 0 to 5. It was developed to characterize those with upper limb phantom pain; the goal of this outcome measure was to provide clinicians with a means of gathering information relating to PLP in order to gain a better understanding of the underlying mechanisms and improve quality of services to amputees.⁷ There were no research findings on the psychometric properties of this scale.

Considerations for the psychosocial factors that influence phantom limb pain are imperative for PLP assessment. Although not a comprehensive list, the following outcome measures can be used to assess

factors of chronic pain also related to phantom limb such as catastrophizing, depression, and coping strategies.

Impact of Event Scale: this is a measure of subjective stress as it relates to a specific event (can be used for any life event). This was initially developed to assess post-traumatic stress disorder which can contribute to chronic pain.⁵

Beck Depression Inventory: depression is often common among patients with amputation and can further contribute to occurrence of phantom limb pain. The BDI is a scale for assessing depression and can be used to discriminate depression and anxiety. A meta-analysis of the BDI's internal consistency estimates yielded a mean coefficient alpha of 0.81 for non-psychiatric subjects.⁶

Coping Strategies Questionnaire: evident by the name, this questionnaire measures coping in chronic pain patients. It includes 8 major coping strategies, 6 of which are cognitive and 2 are behavioral (among the cognitive factors is the catastrophizing subscale).⁸ The 6-item catastrophizing scale is frequently used in pain research to measure catastrophizing, and has demonstrated excellent internal consistency reliability. Validity of the catastrophizing scale has been demonstrated through its associations with measures of depression and psychosocial dysfunction.⁹

SF-36: quality of life measure using a multi-item scale to examine a person's perceived health status. SF-36 is a psychometrically sound, reliable, and valid measure in many populations and is more responsive to clinical improvement than other instruments.¹⁰

References

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