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I N D E X

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Words to make your knees weak: "The evidence is weak!"2

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Validity of Questionnaires in Evidence Based Research: The Assessment of Client's with Parkinson's Disease

Kimberly Burnham, RMT, IMTC, PhD Candidate

There is a strong need for evidence based research in the field of massage therapy and manual therapies. This is prompting more therapists to do research in order to increase the support for their particular treatment techniques. The idea is that with increased research showing the effectiveness of a treatment comes more acceptance by the mainstream medical system and the general public. One way to increase the strength of a piece of research is to use assessment tools that have high validity.

Questionnaires vary widely in the way they are worded and how well they have been validated. Looking at research, whether it is in the field of massage therapy or Parkinson's or some other area of specialization can inform therapists about the most commonly used questionnaires and how well they are accepted. Many questionnaires are already formulated and validated. Inventing a new questionnaire for a study, weakens the strength of the research, if its validity is unproven.

A search of Pubmed (Public Medline at <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>) for articles with "questionnaire" in the keywords brings up over 100,000 abstracts. Of those 174 also have the word "massage" in the article. Searching the over 100,000 abstracts using the additional keyword "Parkinson's" yields 487 articles. Another website with information on current clinical trials is <http://www.clinicaltrials.gov/>. This site includes information on research design, inclusion, exclusion criteria, evaluation methods and more.

One Parkinson's Disease Questionnaire (PDQ-39), for example, is widely used in the medical literature, is well validated and available free of charge to non-profit organizations or educational research programs.

Currently, the most common treatments for Parkinson's, include medications that influence dopamine levels in the brain and brain surgery focused on the basal ganglia, which influence movement. Many people with Parkinson's are using manual therapies, exercise programs, physical therapy, nutritional counseling and other interventions related to managing pain, emotional and cognitive changes as well as overall quality of life. How can we know which of the many complementary care approaches influence quality of life in a significant way?

Recommending the PDQ-39, one researcher said, "after Alzheimer's disease, Parkinson's disease is the second most frequent degenerative disease of the central nervous system. The consequences of Parkinson's disease at the functional, social and emotional levels warrant a better understanding the patient's perceptions as measured using a specific instrument rather than restricting the medical approach to the clinical evaluation of the motor component." (Auquier, 2002). Depression, disability, postural instability, and cognitive impairment have the greatest influence on quality of life in Parkinson's disease. "The improvement of these features should therefore become an important target in the treatment of the disease." (Schrag, 2000). "The PDQ-39 is a sensitive tool for monitoring change in patients with Parkinson's disease. It has high levels of concurrent validity with established measures of mood and motor function." (Harrison, 2000).

Research into the validity of the PDQ-39 in the first couple of years was mostly done by the developers of the questionnaire: Crispin Jenkinson, Ray Fitzpatrick, and Viv Peto. In 1995, Peto noted, "Parkinson's disease is a common degenerative neurological condition. A number of general health status measures exist but these may not address areas salient to specific diseases. We report here the development and validation of a short 39 item health status questionnaire for use in Parkinson's disease. Questionnaire items, generated from in-depth interviews with people with Parkinson's disease, were developed into a 65 item questionnaire. Data from a postal survey using the 65 item questionnaire were statistically analyzed to produce a shorter questionnaire with 39 items and eight scales addressing different dimensions of Parkinson's disease. A second postal survey was conducted in order to assess the reliability and validity of the new 39 item questionnaire. The final questionnaire, referred to here as the 39 item Parkinson's Disease Questionnaire (PDQ-39), proved to have satisfactory internal and test-retest reliability, and construct validity in relation to other measures, reported by respondents with Parkinson's disease." (Peto, 1995).

The PDQ-39, which evaluates mobility, activities of daily living, emotional well

being, stigma, social support, cognition, communication and bodily discomfort, has been used to explore the benefits of multidisciplinary rehabilitation, exercise programs, spa treatment and music therapy. In one study, the PDQ-39 demonstrated that "patients with Parkinson's disease decline significantly over six months, but a short spell of multidisciplinary rehabilitation may improve mobility. Follow up treatments may be needed to maintain any benefit." (Wade, 2003). Using the PDQ-39 within a selection of other tests allowed Brefel-Courbon to conclude that "This cost-effectiveness analysis suggests that spa therapy is more effective and less expensive than conventional treatment alone and could be beneficial in the management of Parkinson's disease." (Brefel-Courbon, 2003). In another study changes in the scores of subjects' PDQ-39 supported the use of an exercise program. "A statistically significant improvement occurred in the UPDRS ($P < 0.026$) and PDQ-39 ($P < 0.028$) scores following the moderate-intensity exercise intervention. The results of this nonrandomized clinical trial indicate that an 8-week individualized PoleStriding exercise program increases perceived functional independence and quality of life in individuals with Parkinson's disease." (Baatile, 2000)."

"Music therapy is an unconventional, multisensorial therapy poorly assessed in medical care but widely used to different ends in a variety of settings. In active music therapy the utilization of instruments is structured to correspond to all sensory organs so as to obtain suitable motor and emotional responses." (Pacchetti, 1998). Pacchetti concluded that, "active music therapy, operating at a multisensorial level, stimulates motor, affective and behavioral functions." (Pacchetti, 1998).

Researchers still debate, how much of a change in the values has to occur before the impact of the intervention is significant. One of the developers of the PDQ-39, suggests that a six points change on a 0-100 transformed scoring of the Mobility dimension is the minimum meaningful change. "The demonstrated consistency across occasions and types of sample of standard error of measurements and standard error of the difference for the majority of the dimensions of the PDQ-39, is evidence of the theoretic-

Utility of the PDQ-39 in the

cally claimed advantage of this measure of sample independence, and supports use of this distributional approach to minimum meaningful change.” (Fitzpatrick, 2004).

Marinus summed up the benefits of this questionnaire in Parkinson’s disease studies by saying, “The selection of an instrument partially depends on the goal of the study. In many situations however, the PDQ-39 will probably be the most appropriate health related quality of life instrument.” (Marinus, 2002).

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Biography:

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Universal Terminology & PNF Stretching

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position for 30 seconds

Safety:

- So that a stretching technique is not used or modified if a contraindication to this technique exists
- So that a contraindication to a isometric/concentric contraction of the contracting muscle does not exist
- So that you don’t stretch or assist in a controlled isometric/concentric contraction to an unstable structure or tissue

Biography:

Ian Dolmage is a teacher in the Massage Therapy Program at Algonquin College. He can be reached at dolmagi@algonquincolle.edu.

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