The UK-Evaluation of Daily Activity Questionnaire (UK-EDAQ) in Musculoskeletal Conditions: psychometric testing and functional evaluation

Key findings

- The Evaluation of Daily Activity Questionnaire (EDAQ) is suitable for use with clients with the commonest musculoskeletal conditions (MSCs) referred to rheumatology occupational therapists: ankylosing spondylitis; osteoarthritis; systemic lupus erythematosus; systemic sclerosis [scleroderma]; chronic pain (fibromyalgia, widespread, back or neck pain; and chronic (i.e. longer than 3 months) hand/upper limb musculoskeletal disorders and Primary Sjogren's Syndrome.

- In clinical practice, following an introduction by the occupational therapist, clients complete the EDAQ at home. It can potentially enable clients to gain deeper insight into their abilities and limitations and reflect on whether to make changes. It can reduce occupational therapy assessment time and increase treatment time. This will potentially improve clients' satisfaction with occupational therapy services as more of their limitations can be addressed.

- The EDAQ could be particularly useful for students or novice practitioners who are unfamiliar with problems experienced by people with MSCs, by enabling them to develop a greater appreciation of the problems experienced, and provide more comprehensive therapy.

- It can be used to evaluate rheumatology occupational therapy in clinical practice, audit and research, where a detailed Patient Reported Outcome Measure (PROM) is required. It can be used by post if required, as the majority of participants successfully completed the EDAQ using its written instructions.

Project aims

- To develop the EDAQ so that it can be used to provide a robust, standardised, detailed assessment of activity ability for all the most common musculoskeletal conditions (MSCs) referred to occupational therapists. Specifically, to identify if further items need to be included relevant to these MSCs.

- Test the psychometric properties (internal consistency, construct and concurrent validity, test-retest reliability) of the UK-EDAQ in six MSCs commonly referred to occupational therapists.

- Develop an English EDAQ User Manual for these conditions.

Background

Standardised, validated self-report questionnaires and structured, validated interviews of activity limitations have been available for many years although they are not routinely used in Rheumatology Occupational Therapy (College of Occupational Therapists Specialist Section Rheumatology, North West Regional Group member survey, unpublished 2009). Reasons for non-use of standardised measures include: they do not aid treatment planning as they lack detail; concerns they are insufficiently sensitive to show change; and the time required to complete structured interviews is excessive. The Evaluation of Daily Activities Questionnaire (EDAQ) was developed in Sweden to meet the needs of occupational therapists for a detailed patient reported outcome measure. The client normally completes this at home, to allow time for reflection on abilities and difficulties.

A previous study linguistically and cross-culturally validated an English version of the EDAQ in rheumatoid arthritis (EDAQ-RA: funded by Arthritis Research UK). This demonstrated the internal construct, concurrent and discriminant validity, internal consistency, test-retest reliability and unidimensionality of the EDAQ. The study reported here extends this work by testing the EDAQ in seven musculoskeletal conditions.
Methodology

The EDAQ-RA study conducted previously, recommended that two parts of the EDAQ are used:

- Part 1: 10 scales evaluating common symptoms (e.g. pain, fatigue) and impacts of arthritis (e.g. sleep, mood). This addresses health domains from the International Classification of Functioning, Disability and Health of Body Functions (World Health Organisation 2001).

- Part 2: 14 domains (including 138 activities) which can be used individually or combined into two components: Self-Care (Eating, Dressing, Personal Care, Cooking, Cleaning the House, Laundry and Communication) and Mobility (Bathing, Moving Indoors, Transfers, Moving Outdoors, House & Garden Maintenance); plus two additional domains of Caring and Leisure/Social Activities. This addresses domains of Activities and Participation in the ICF. Each domain is divided into two sections. Section A asks about ability without using assistive devices, alternate methods or help. Section B asks about ability with assistive devices or alternate methods (if used).

Cognitive debriefing interviews were conducted to identify whether any changes in EDAQ content were needed to be applicable for the seven MSCs. Participants were then recruited from the NHS and patient organisations, and completed a study questionnaire on two occasions. Test 1 included the EDAQ and several comparator measures, the Health Assessment Questionnaire and SF36v2™, to test concurrent validity. Discriminant validity between condition severity groups, internal consistency and test-retest reliability were also examined. Rasch analysis was conducted to confirm the domain and two component structure developed in the EDAQ-RA study.

Results

In Phase 1 70 interviews were conducted, identifying only minor modifications were needed to the EDAQ. Across all conditions, all 138 activities in the EDAQ were deemed as moderately to extremely important to retain. The majority of participants reported the EDAQ was easy to complete and its length acceptable.

In Phase 2, 1205 participants were recruited. Rasch analysis confirmed the 12 domain, two component structure of the EDAQ and that total ordinal scores within each domain could be summed. The two additional domains (Caring and Leisure) were retained because Phase 1 participants emphasised their importance. All domains, apart from Caring (due to low numbers for whom this was applicable), had good concurrent and discriminative validity, internal consistency and test-retest reliability. The majority of participants considered it had “about the right amount of questions” and would be helpful when discussing their activity abilities/limitations with an occupational therapist.

A copy of the EDAQ and an EDAQ User manual are available for free download and use under Creative Commons Licenses from: EDAQ User Manual:  http://usir.salford.ac.uk/30752/
EDAQ Parts 1 and 2:  http://usir.salford.ac.uk/30755/  EDAQ Parts 1 to 3:  http://usir.salford.ac.uk/30754/

Publications


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Reference