

Oswestry Disability Index

Name

Oswestry Disability Index.

Synonyms

Oswestry Disability Questionnaire, Oswestry Disability Index Scoring, ODI Score, ODI Scale.

Source Article

Fairbank J, Couper J, Davies J, et al. The Oswestry low back pain questionnaire. Physiotherapy 1980;66:271–273.

Description

The Oswestry Disability Index (ODI) is one of the principal condition-specific outcome measures used in the management of spinal disorders. The ODI is the most commonly outcome measures in patients with low back pain. It has been extensively tested, showed good psychometric properties, and applicable in a wide variety of settings.

Structure / Content

There are 10 questions (items). The questions are designed in a way that to realize how the back or leg pain is affecting the patient's ability to manage in everyday life. The questioonare can be found on the bottom of this page.

Scoring Method

Each of the 10 items is scored from 0 - 5. The maximum score is therefore 50. The obtained score can be multiplied by 2 to produce a percentage score.

If the FIRST statement is marked, the section score = 0, If the LAST statement is marked, it = 5

If all ten sections are completed the score is calculated as followed:

Example: 10 (total score of the patient), 50 (total possible raw score), $10/50 \times 100 = 20\%$

If one section is missed or not applicable, the score is calculated as followed:

Example: 15 (total score of the patient), 45 (total possible score), 15/45 x 100 = 30%

Interpretation

- 1. 0%-20%: Minimal disability: This group can cope with most living activities. Usually no treatment is indicated, apart from advice on lifting, sitting posture, physical fitness, and diet. In this group some patients have particular difficulty with sitting, and this may be important if their occupation is sedentary, e.g., a typist or truck driver.
- 2. 20%-40% Moderate disability: This group experiences more pain and problems with sitting, lifting, and standing. Travel and social life are more difficult and they may well be off work. Personal care, sexual activity, and sleeping are not grossly affected, and the back condition can usually be managed by conservative means.
- 3. 40%-60%: Severe disability: Pain remains the main problem in this group of patients, but travel, personal care, social life, sexual activity, and sleep are also affected. These patients require detailed investigation.

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- 4. 60%-80%: Crippled: Back pain impinges on all aspects of these patients' lives both at home and at work—and positive intervention is required.
- 5. 80%-100%: These patients are either bed-bound or exaggerating their symptoms. This can be evaluated by careful observation of the patient during medical examination.

Minimum Detectable Change

(at 90% confidence) is 10% points. That means at least a 10% change is required to be clinically meaningful. Thus, change of less than this may be attributable to error in the measurement.

Validity / Reliability / Predictive Ability

The ODI is the most commonly outcome measures in patients with low back pain. It has been extensively tested, showed good psychometric properties, and applicable in a wide variety of settings.

Development

The development of the Oswestry Disability Index was initiated by John O'Brien in 1976. Patients with back pain were interviewed by an orthopedic surgeon (Stephen Eisenstein), and an occupational therapist (Judith Couper). Various drafts of the questionnaire were tried. The questionnaire had been published in 1980 by Fairbank and his colleagues and widely disseminated from the 1981 meeting of the International Society for the Study of the Lumbar Spine (ISSLS) in Paris.

Versions / Translations

Four versions of the ODI are available in English and nine in other languages.

- 1. Version 1.0 is the original (Fairbank et al), reproduced by Hupli et al (with a scoring system) and Boden without one. It has also been published omitting a single item from both section 8 (sex life) and section 9 (social life).
- 2. The American Academy of Orthopedic Surgeons (AAOS) and other spine societies have adapted version 1.0 into their spine outcome instruments. This version reflects American rather than British usage. It omits sections 1, 8, and 9. It scores the remaining sections from 1 to 6 (rather than 0–5), which leads to confusion when comparing scores obtained with other versions.
- 3. Version 2.0 was a modification of the ODI made by a Medical Research Council group in the United Kingdom. It has been widely distributed by correspondence and is available as part of a computer interview in the United Kingdom (slightly modified) or in the United States (through MODEMS; available at PO Box 2354, Des Plaines, IL 60017-2354).
- 4. A revised Oswestry Disability Questionnaire was published by a chiropractic study group in the United Kingdom in 1989. Its objective was to increase the sensitivity of the scale for less disabled patients, but it confuses impairment with disability, which is a great concern with this version. The sex question is omitted. This version onfuses impairment questions with disability questions. Its wording is often complex, and some sections do not allow for no symptoms. It allows a measurement of changing symptoms, however.

The sex question (Section 8) is unacceptable in some cultures and has been omitted in certain studies—notably in those involving teenagers with spondylolisthesis and in patients with multiple metastases. The cancer studies have also omitted Section 1 (Pain), which they measured by other means.

5. Version 2.1a of the ODI is now recommended, indeed required by its copyright holders, for all new studies. This version can be found at Mapi Research Trust at this <u>link</u>.

Copyright

ODI is copyrighted. It is free only for not-funded academic research and individual clinical practice. Other uses are subject to fee. Details can be found at this <u>link</u>.

Scientific Spine's Comment

It is recommended that the Oswestry Disability Index be used at baseline and for every 2 weeks thereafter within the treatment program to measure progress. As noted above, at least a 10% change is required to be clinically meaningful. Patients often do not score the items as zero, once they are in treatment. In other words, it is common to find that patients will continue to score between 10% - 30% despite having made excellent recovery (i.e., they may be back to work). The practitioner should avoid the trap of "treating till zero", as this is not supportable based on current evidence.

References

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