

Appendix to Anny Aasprang, Villy Våge, Tone Nygard Flølo, Pål Andre Hegland, Ronette Kolotkin, Gerd Karin Natvig, John Roger Andersen. Patient-reported quality of life with obesity – development of a new measurement scale. Tidsskr Nor Legeforen 2019; 139. doi: 10.4045/tidsskr.18.0493.
This appendix is a supplement to the article and has not been editorially processed or peer reviewed.



Appendix 1 – not peer reviewed

Patient Reported Outcomes in Obesity (PROS)

PROS is a self-reporting questionnaire that measures the extent to which a patient perceives his or her *weight or body shape* as bothersome in a total of eight areas of life, and has been developed for use in clinical practice and research in a collaboration between clinicians, researchers and patients. The main objective for PROS is to facilitate dialogue between patients and clinicians and thus help improve the consultations.

PROS can be defined as an indicator of quality of life, or more specifically obesity-related quality of life. The questionnaire focuses on the degree of discomfort or the absence of discomfort, rather than on 'positive health aspects'. Clinicians who use the questionnaire should also focus on the patient's resources during the consultation.

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Reference: Aasprang A, Våge V, Flølo TN et al. Patient-reported quality of life with obesity – development of a new measurement scale. Tidsskr Nor Legeforen 2019; 139. doi: 10.4045/tidsskr.18.0493.

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Patient Reported Outcomes in Obesity (PROS)

English

Does your *weight or body shape* bother you in the areas listed below?
(Mark with a cross the alternative that best describes your current situation)

| Areas | Considerably bothered | Moderately bothered | Mildly bothered | Not bothered |
|---|--------------------------|------------------------|-----------------------|-----------------------|
| 1. Common physical activities (walking, climbing stairs and similar) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Bodily pain | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Discrimination or discourteous behaviour | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Sleep | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Sexual life | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Normal social interaction | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Work, school or other daily activities | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Self-esteem | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Patient Reported Outcomes in Obesity (PROS)

Bokmål

Føler du at din vekt eller kroppsform plager deg innenfor områdene nedenfor?
(kryss av det alternativet som passer best for deg i dagens situasjon)

| Områder | Betydelig plaget | Moderat plaget | Mildt plaget | Ikke plaget |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Vanlige fysiske aktiviteter (spasere, gå opp trapper og lignende) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Smerter i kroppen | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Diskriminering eller ufin oppførsel | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Søvn | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Seksualliv | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Vanlig sosial omgang | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Arbeid, skolegang eller andre daglige gjøremål | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Selvfølelse | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Scoring

PROS items are scored from 0 (not bothered) to 3 (extremely bothered) as shown in the table below.

Does your weight or body shape bother you in the areas listed below?
(Mark with a cross the alternative that best describes your current situation)

| Områder | Considerably bothered | Moderately bothered | Mildly bothered | Not bothered |
|---|--------------------------|------------------------|--------------------|-----------------|
| 1. Common physical activities (walking, climbing stairs and similar) | 3 | 2 | 1 | 0 |
| 2. Bodily pain | 3 | 2 | 1 | 0 |
| 3. Discrimination or discourteous behaviour | 3 | 2 | 1 | 0 |
| 4. Sleep | 3 | 2 | 1 | 0 |
| 5. Sexual life | 3 | 2 | 1 | 0 |
| 6. Normal social interaction | 3 | 2 | 1 | 0 |
| 7. Work, school or other daily activities | 3 | 2 | 1 | 0 |
| 8. Self-esteem | 3 | 2 | 1 | 0 |

PROS sum scores are produced by calculating the average score for all questions (adding up the scores for all items and dividing by 8). Higher scores indicate greater discomfort.

Tips for interpretation and clinical use (PROS)

Items

Green code: The clinician can comment on the areas that appear to be OK and ask whether the patient has something he or she wishes to add. The clinician can also ask whether the patient has done something in particular that seems to have caused these areas to work out well (resources).

Yellow code: The patient reports mild to moderate discomfort. The clinician informs the patient that this area evidently involves certain challenges that need to be discussed.

Red code: The patient reports considerable discomfort, and the clinician needs to demonstrate to the patient that this is being taken seriously. If many red scores emerge, the clinician needs to prepare to devote extra time to the consultation with the patient.

Follow-up: As agreed with the patient, follow-up may include: (1) the patient continues to address the challenges on his/her own (alternatively, the potential for treatment to cause change is considered), (2) the patient takes responsibility for contacting his/her GP (or other relevant personnel), (3) referral to another health institution, or (4) other interventions according to the clinician's assessment.

PROS items

| Domain | Green | Yellow | Red |
|----------------------|-------|--------|-----|
| Physical functioning | 0 | 1-2 | 3 |
| Pain | 0 | 1-2 | 3 |
| Discrimination | 0 | 1-2 | 3 |
| Sleep | 0 | 1-2 | 3 |
| Sexual life | 0 | 1-2 | 3 |
| Social interaction | 0 | 1-2 | 3 |
| Daily activities | 0 | 1-2 | 3 |
| Self-esteem | 0 | 1-2 | 3 |

PROS sum

The sum score is used as an indicator of the patient's degree of discomfort. Note that it is important not to use the sum score in isolation in clinical work, since the patient may have a low sum score but still suffer from considerable discomfort in particular areas.

The PROS sum score is based on giving equal weight to all items, but this may not necessarily be true at the individual level. The extent to which a patient feels 'bothered' may therefore differ from the categories below. You should therefore also ask to what extent the patient feels bothered in general, on a scale from 'not bothered' to 'considerably bothered'.

| Score | Assessment |
|-----------------|-------------------------|
| <0.5 | No discomfort |
| 0.5–1.49 | Mild discomfort |
| 1.5-2.49 | Moderate discomfort |
| ≥ 2.5 | Considerable discomfort |