Reliability and validity of the Ocular Surface Disease Index.

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Abstract

OBJECTIVE: To evaluate the validity and reliability of the Ocular Surface Disease Index (OSDI) questionnaire.

METHODS: Participants (109 patients with dry eye and 30 normal controls) completed the OSDI, the National Eye Institute Visual Functioning Questionnaire (NEI VFQ-25), the McMonnies Dry Eye Questionnaire, the Short Form-12 (SF-12) Health Status Questionnaire, and an ophthalmic examination including Schirmer tests, tear breakup time, and fluorescein and lissamine green staining.

RESULTS: Factor analysis identified 3 subscales of the OSDI: vision-related function, ocular symptoms, and environmental triggers. Reliability (measured by Cronbach alpha) ranged from good to excellent for the overall instrument and each subscale, and test-retest reliability was good to excellent. The OSDI was valid, effectively discriminating between normal, mild to moderate, and severe dry eye disease as defined by both physician's assessment and a composite disease severity score. The OSDI also correlated significantly with the McMonnies questionnaire, the National Eye Institute Visual Functioning Questionnaire, the physical component summary score of the Short Form-12, patient perception of symptoms, and artificial tear usage.

CONCLUSIONS: The OSDI is a valid and reliable instrument for measuring the severity of dry eye disease, and it possesses the necessary psychometric properties to be used as an end point in clinical trials.

PMID: 10815152 [PubMed - indexed for MEDLINE]