3. Development of an endometriosis self-assessment tool for patient

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Abstract

Objective: This study aimed to develop and verify an endometriosis self-assessment tool

(ESAT).

Methods: A non-experimental, descriptive, correlational study design was used. Candidate

items were developed based on a conceptual framework constructed using the results of indepth

interviews and an integrative literature review. The construct validity of the developed

tool was also examined. One-hundred and forty-two participants (117 patients with

endometriosis and 25 patients without endometriosis) were included in the validity and

reliability tests. The data were collected between August and December 2018. Nomological

validity was verified based on significant correlations between the ESAT and the quality-oflife

scores.

Results: A 21-item ESAT was developed, and its construct validity was supported.

Exploratory factor analysis indicated that the tool consisted of four components

(gastrointestinal symptoms, dysmenorrhea, usual symptoms, and the amount and

characteristics of menstrual bleeding) with a variance of 61.6%. The variance in quality-oflife

scores, as explained by the ESAT scores, was relatively high. Receiver operator

characteristics (ROC) curve analysis indicated that ESAT scores significantly differentiated

endometriosis from non-endometriosis with fair discriminatory power at a cut-off score of 50

(sensitivity 0.76, specificity 0.72, area under the curve [AUC]>0.75 [P<0.001]). This means

that patients with ESAT scores >50 points were more likely to have endometriosis. Thus, the

reliability of the ESAT was confirmed.

Conclusion: The devised tool appears valid and reliable. This tool may allow women to

determine their risk of endometriosis by distinguishing between normal and pathological

menstruation-related symptoms.

Keywords: Endometriosis; Factor analysis; Receiver operator characteristic curve;

Reliability and validity; Self-assessment.