

# Reliability and validity of measuring scale for postoperative complications in third molar surgery

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**Background:** Third molar removal surgery is the most frequently performed surgery in the oral and maxillofacial field with a wide range of items in the quantification of postoperative complications. For their measure, in 2014 a previous scale design was presented. The aim of this study was to determine the reliability and validity of a scale designed to measure and quantify postoperative complications in third molar surgery (TMS). **Methods:** A cross-sectional study of a measurement model was designed. Sixty-two patients (mean age  $20.5 \pm 6.6$  years; 36 women) underwent TMS in three Chilean hospitals. In the postoperative check-up on the 7th day, a maxillofacial surgeon and a surgical resident performed independent postoperative assessments, applying the scale. A confirmatory factor analysis was conducted to obtain validity, internal consistency, interobserver reliability and a score to categorize the severity of complications using structural equation model analysis. **Results:** Nine patients (14.5%) had complications. The scale was defined by two components: "Secondary complication" and "Infection" (Cronbach's alpha 0.71; Interobserver reliability 87.7%) and three categories of postoperative complication: "without or mild", "moderate" and "severe". **Conclusion:** This study presents a reliability and validity scale called "Surgical complication assessment scale in TMS". © 2018 The Author(s).

Measurement scale, factor analysis

Oral surgery

Postoperative complications

Third molar

cross-sectional study

factor analysis

female

human

male

observer variation

postoperative complication

reproducibility

surgery

third molar

tooth extraction

young adult

Cross-Sectional Studies

Factor Analysis, Statistical

Female

Humans

Male

Molar, Third

Observer Variation

Postoperative Complications

Reproducibility of Results

Tooth Extraction

Young Adult