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### **Association Between Patient-Reported and Clinician-Reported Outcome Measures at Implant Sites**

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**Objectives** The present systematic review aimed at answering to the following PICO question: « In patients with single implant-supported crowns (in the aesthetic region) (P), are patient-reported outcome measures (PROMs) (E) associated with clinician reported outcome measures (ClinROs) (C) in terms of esthetics (O)?».

**Methods** Following an a-priory protocol, an electronic search was conducted in PubMed, CENTRAL, Scopus, Embase and Web of Science up to August 10, 2023 to identify studies on healthy patients with an implant-supported crown in the esthetic region. Only randomized controlled trials evaluating both PROMs and ClinROs were assessed for inclusion. Corresponding authors of the included articles were contacted by e-mail and were asked to provide the raw data on PROMs and ClinROs. The outcome measures regarding esthetics were extracted, pooled and correlations between mean ClinROs and PROMs were assessed using the Pearson correlation coefficient using a statistical software (Stata version 18. College Station, TX: StataCorp LLC).

**Results** The search identified 3075 titles after removing duplicates. Twenty-five unique studies reporting on 1240 patients with 1240 implant-supported crowns were included. A significant positive correlation was found between PES and patient satisfaction regarding aesthetics reported by VAS ( $r=0.41$ ;  $R^2=0.17$ ;  $p=0.02$ ). Similarly, a positive significant correlation was found between WES and the aesthetics results reported by the patients ( $r=0.53$ ;  $R^2=0.28$ ;  $p=0.02$ ). Conversely, no correlation was found between PES and patient overall satisfaction measured ( $r=0.18$ ;  $R^2=0.03$ ;  $p=0.25$ ) or WES and patient overall satisfaction ( $r=-0.03$ ;  $R^2=0.00$ ;  $p=0.82$ ). No other distinguishable associations patterns, for example in buccal soft tissue dehiscence, between specific types of PROMs and ClinROs were observed.

**Conclusions** Randomized clinical trials evaluating patient-reported outcome measures regarding esthetics show a positive correlation with clinician-reported outcomes as the pink esthetic score in patients with single implant-supported crowns.