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**Polymerization shrinkage stress of resin-based dental materials: a systematic review and meta-analyses of technique protocol and photo-activation strategies**

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**ABSTRACT**

*Purpose.*

A systematic review was conducted to determine whether there were any alternative technique or additional step strategies available to reduce and control polymerization shrinkage stress development in dental resin-based restorative materials.

*Data sources.*

This report followed the PRISMA Statement. A total of 36 studies were included in this review. Two reviewers performed a literature search up to December 2016, without restriction of the year of publication, in seven databases: PubMed, Web of Science, Scopus, SciELO, LILACS, IBECs, and BBO.

*Study selection.*

Only in vitro studies that evaluated polymerization shrinkage stress by direct testing were included. Pilot studies, reviews and in vitro studies that evaluated polymerization shrinkage stress by indirect methods (e.g., microleakage or cuspal deflection measurements), finite elemental analysis or mathematical models were excluded. Of the 6.113 eligible articles, 36 studies were included in the qualitative analysis, and the

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