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Efficacy of Digital and Traditional Dental Photography Techniques: A Systematic Review and Meta-analysis

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ADMINISTRATIVE INFORMATION

Support - King Khalid University.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 7 November 2024 and was last updated on 7 November 2024.

INTRODUCTION

Review question / Objective The aim of this study is to discover and review research that supports the use of various dental photography techniques to document dental conditions.

Rationale This study examines the impact of advanced dental photography techniques on image quality, essential for accurate diagnosis and customized treatment planning.

Condition being studied The conditions being studied relate to the challenges in capturing accurate and detailed dental images that impact diagnosis, treatment planning, and patient education.

METHODS

Search strategy Database search was done using CINAHL, PubMed, Cochrane Library, ScienceDirect, and Dimensions.

Participant or population Human teeth.

Intervention Dental images with various equipment.

Comparator Traditional Methods.

Study designs to be included Original research on the efficacy of dental photography techniques.

Eligibility criteria Studies published in English. Studies published as original research articles.

Information sources Reviews, meta-analyses, opinion pieces, conference abstracts.

Main outcome(s) Documentation quality, therapy planning, image quality comparison.

Data management Microsoft Excel (Excel 365; Microsoft Corp., Redmond, WA, USA). For export and data manipulation, Google Sheets.

Quality assessment / Risk of bias analysis Two researchers independently assessed the risk of bias of the included articles using —JBI critical appraisal tools. The potential risk of bias was categorized as low if a study provided detailed information pertaining to 70% or more of the applicable parameters.

Strategy of data synthesis Two review authors (RS and MS) used the studies to help select studies and document their decisions. This was done in two stages, with the first stage consisting of a title and abstract screening of all studies against the inclusion criteria, and the second stage being a full text assessment of papers that were deemed potentially relevant based on the initial screening. RS and AK, the review's authors, discussed and settled their differences by consensus after consulting the procedure.

Subgroup analysis The data was compiled from a variety of articles:
• Author(s), year of publication, country, study design.
• Total number of patients/datasets.

Sensitivity analysis None.

Language restriction Articles only in English were Selected.

Country(ies) involved Saudi Arabia , Armenia.

Keywords Dental Photography, Documentation, Digital photography.

Contributions of each author
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