Research Aid Award

Dr. Mahdis Maleki, *University of Toronto, Canada*

I graduated from Dalhousie University, Halifax, with a DDS degree in 2019 and went on to pursue a one-year training in hospital dentistry at the Hospital for Sick Children (Sick Kids) in Toronto, in 2020. I am currently a second-year resident in the Orthodontics program at the University of Toronto, Canada.

A gingival smile is a condition with several etiological factors that can compromise an individual's smile esthetics. The literature has proposed various treatment modalities for the reduction of excessive gingival display on smile, ranging from invasive surgeries to less invasive and non-surgical techniques. To our knowledge, no systematic review has been conducted to compare and contrast the clinical effectiveness of surgical and non-surgical procedures for the treatment of gingival smile. Consequently, the purpose of this systematic review is to appraise the peer-reviewed publications for evidence on the effectiveness, stability, patient satisfaction, and complications of surgical and non-surgical therapies in adults with excessive gingival display. An electronic literature search will be conducted from January 1st, 2010, to the current date. The retrieved articles will be screened by title and abstract, followed by full-text review. The risk of bias for the selected studies will be assessed using the Cochrane risk-of-bias tools. The extracted information will be reported as a narrative synthesis. The Chi-squared test and the I^2 statistic will be employed to identify and quantify heterogeneity, respectively, and a meta-analysis of the findings will be performed accordingly.

This knowledge synthesis will explain the different surgical and non-surgical techniques for correction of gingival smile, identify the differences between the studies and their limitations, appraise the quality of available evidence, and provide directions for future studies. The findings of this review can help with clinical decision-making regarding the most effective treatment for the correction of a gingival smile with the goal of long-term stability, patient satisfaction, and minimal complications.

The funding from AAOF will be used in hiring an experienced statistician familiar with meta-analysis, as well as a research assistant as the second reviewer to assist in the screening, data extraction, and risk of bias analysis. This award will enable me to attend national and international conferences to present my research project and support the publication fees.

Throughout my education, I have had the privilege of learning from knowledgeable and passionate teachers. I have always thought highly of the educators who dedicate their careers to academia and research. I find involvement in academia to be a great opportunity for me to share my knowledge and passion for orthodontics, as well as to learn from my colleagues' expertise. The funding from AAOF is invaluable in supporting individuals, such as myself, with a life-long passion for research and learning. I believe that learning is a journey that never ends.