تأثير سمك السرج وأبعاد الموصل على مقاومة الكسر للأستعاضات السنية الجزئية المثبتة المصنوعة من الراتنج المقوى بالألياف

رسالة مقدمة إلى

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كجزء من مقومات الحصول على درجة الماجستير

(الاستعاضات السنية المثبتة)

من

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EFFECT OF PONTIC HEIGHT AND CONNECTOR DIMENSION

ON FRACTURE RESISTANCE OF FIBER REINFORCED COMPOSITE FIXED PARTIAL DENTURE

Thesis Submitted to the Faculty of Oral and Dental Medicine, Cairo University, in Partial Fulfillment of the Requirements of the Master's Degree in Restorative Dentistry (Fixed Prosthodontics)

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بسم الله الرحمن الرحيم

" وما أوتيتم من العلم إلا قليلا "

[سورة الإسراء: الآية ٨٥]

DEDICATION

This work is gratefully dedicated to:

MY FAMILY

Mother, Father, brother (Yaser) and Sisters

My FRIENDS

Safa, Belal, Obaida, Khalil, Kamal, Islam, Abdullah

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INTRODUCTION

Most cultures throughout centuries have acknowledged teeth as an integral facial structure for health, youth, beauty and dignity. Unexpected loss of tooth structure and, particularly, missing teeth creates not only physical and functional problems, but often psychological and social disturbances as well. The treatment alternatives for the replacement of a single missing tooth have expanded during recent times, so that the choice of a proper treatment plan is no longer a simple decision.

Treatment options to replace single missing teeth include the Removable Partial Dentures, Fixed Partial Dentures, Resin-Bonded Fixed Partial Dentures and implant supported prothesis. In making the proper choice of the most appropriate restoration type and material, one should consider both patient's priorities and scientific objectives.

During the last decade, the demand for aesthetic non-metallic, highly biocompatible dental restorative materials has increased markedly. Fiber Reinforced Composites (FRC) were introduced some years ago as an alternative to full ceramic and porcelain fused to metal in the fabrication of single crowns, bridges, inlays, and onlays. FRC provide good aesthetics due to the translucency which is similar to natural tooth structure. They also exhibit high flexural strength which renders them less susceptible to fracture.

Additionally, their lower hardness prevents the excessive wear of the opposing natural dentition. There are several FRC systems with differences in the type of fibers and their layering laboratory preparation.