



Assessment of Patient Satisfaction and The Reasons for Crowns and Fixed Partial Denture Failure, a Clinical Study

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Abstract

Aims. This study aimed to assess the satisfaction levels of patients who had fixed dental prostheses for rehabilitation and analyze the aspects, including biological, mechanical, and aesthetic, that contribute to the failure of these prostheses. **Material and Methods.** Cross-sectional observational research was undertaken in the Department of Prosthodontics, College of Dentistry, University of Basrah, Iraq, from September 2022 to May 2023. The study included a cohort of 130 patients, both males and females, who received treatment with fixed dental prostheses. The participants who were selected answered a series of questionnaires on their concerns about the fixed prosthesis, and a clinical examination involving radiographic assessments of the prosthesis was conducted. The reason for failure was documented, and data were organized for descriptive analysis of the components assessed through chi-square and Fisher's exact test. **Results.** Based on clinical and radiographic assessment, it was determined that 103 out of the total number of individuals assessed experienced some form of failure. 44.6% of the cases exhibited biological problems, 31% exhibited mechanical failures, and 24.2% exhibited aesthetic problems. Dental

caries accounted for most biological failures (32.6%), whereas prosthesis loosening was the primary mechanical cause of failure (56.2%). Poor marginal fit was identified as the leading aesthetic reason for failure (48%). A strong correlation was seen between the level of satisfaction and mechanical failure ($p=0.017$). **Conclusion.** Most patients expressed satisfaction following the observation period. Dental decay was the most prevalent biological component leading to failure, whereas loss of retention was the primary mechanical cause. In comparison to other aspects affecting aesthetics, poor marginal fit had a more significant role.

Keywords: Survival rate, Fixed dental prosthesis, Abutment failure, Technique complication, Patient satisfaction.

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Introduction

Numerous treatment options, including dental implantology, conventional fixed prostheses, and removable prostheses, can be used to replace lost teeth in a partially edentulous arch [1]. Fixed

prosthodontics refers to the use of artificial alternatives to replace or restore teeth that cannot be easily removed by the patient [2]. Dental fixed crowns and bridges are securely linked to the remaining teeth [3]. Fixed crowns are utilized for the purpose of restoring teeth

that have been broken or have big amalgam or composite resin restorations. They can restore functionality and greatly enhance aesthetics. Due to the growing trend among middle-aged and older individuals to maintain a significant proportion of their