

ABSTRACT

Purpose

The purpose of this study was to assess and to compare the technical quality of removable partial dentures (RPDs) servicing both public and private sectors, in relation to biomechanically acceptable principles.

Materials and Methods

RPD prescription sheets, master casts and completed dentures of 114 cases were photographed to facilitate easier identification of components and data analysis outside the laboratory. Procedural and design-related information was completed on data capture sheets for each case. The recorded information was verified by an experienced prosthodontist. An additional prosthodontist was consulted for further analysis if information was unclear or controversial.

Results

30.7% of cases were from public and 69.3% from private sector. Acrylic RPDs were more frequently prescribed at 83.3% followed by metal-based RPDs at 16.67%. More maxillary dentures were requested (62.26%) than mandibular (37.2%). Only 0.88% of dentists had surveyed study models compared to 0% of dental technicians. Verbal instructions had been provided in 2.63% of cases, with written instructions given in 94.74% of cases. None of the dentists or technicians had provided design drawings. With design principles, rests were present in 21.93% of cases, rest seats were prepared in 3.51% of cases and clasps were present in 47.37% of cases. No significant association could be drawn between practice type and type of denture prescribed. Associations between design practices could only be established with the presence of rests. RPDs prescribed in the private sector were more likely to have rests compared to those from public sector.

Conclusions

The study suggests that principles of RPD design taught during undergraduate training are not being adequately practised in both private and public sector; and if practised the RPDs are not designed, nor constructed to the satisfaction of requirements guided by design principles. Further training of dental technicians and clinicians may be required.