

Part-time versus Full-time Retainer Wear Following Fixed Appliance Therapy: A Randomised Prospective Controlled Trial

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Abstract

Aims:

To compare part-time (night only) and full-time Essix retainer wear following fixed appliance treatment with respect to dental alignment and occlusal changes.

Methods:

In this prospective study, sixty patients were randomly allocated to either full-time or part-time Essix retainer wear following fixed appliance therapy. Study models were taken before treatment (T1), at debond (T2) and six months following debond (T3). Little's irregularity index, the intercanine widths, intermolar widths, overjet and overbite were measured blindly on the models.

Results:

Both groups showed pre-treatment equivalence for start age, duration of fixed appliance treatment, Little's index, intercanine width, intermolar width, overjet and overbite. The number of patients completing the trial was 29 (drop-outs=1) in the part-time group and 28 in the full-time group (drop-outs=2). There was a significant reduction in both the maxillary and mandibular Little's index and mandibular intermolar width in both groups during active treatment. There was only a significant reduction in overjet and overbite in the part-time retention group during fixed appliance treatment. Between T2 and T3 there was no significant change in any of the intra- or inter-group study model measurements.

Conclusions:

Night-time only Essix retainer wear may be an acceptable retention regime following the use of fixed appliances.