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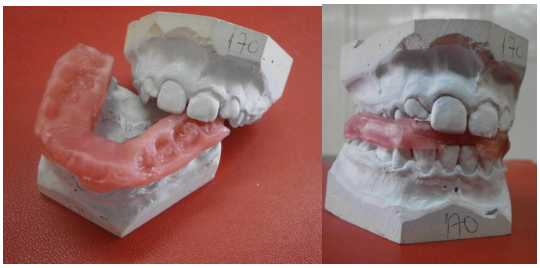
Appendix

To complement the empirical findings of this study, the Appendix includes a set of illustrative images derived from the dental laboratory workflow associated with two representative clinical cases. These visual materials document key stages in the fabrication of conventional orthodontic appliances, highlighting procedural steps, material handling, and technical craftsmanship that remain foundational to clinical orthodontics. By integrating these images, the study not only provides transparency regarding laboratory procedures but also offers a visual contrast to the digital and biomedical device frameworks discussed in the main body of the article. This inclusion underscores the transition from traditional acrylic-based methods to advanced computer-aided and additive manufacturing approaches, thereby reinforcing the paper's central argument that orthodontic splints must be reconceptualized as biomedical devices subject to rigorous validation and regulatory oversight.

Appendix Table 1: First Case

The first clinical case documents the conventional laboratory workflow for fabricating an acrylic orthodontic plate. The process begins with the dental impression, followed by the registration of corrective occlusion using a wax bite rim to achieve proper occlusal balance. The vestibular arch is then constructed, and the models are placed in the pressure polymerization unit at standardized conditions to ensure material consistency. The final stage involves refining the appliance and assessing its fit on the working model, with occlusal and vestibular views illustrating the completed acrylic plate. These images highlight the manual, stepwise approach that has traditionally characterized orthodontic appliance fabrication.

Appendix Table 1.

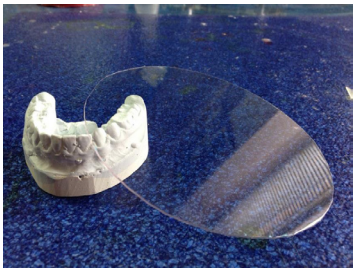
Dental impression	
Corrective occlusion obtained through a wax bite rim applied between arches to achieve occlusal balance (clinical stage)	
Construction of the vestibular arch	

Placement of models in the pressure polymerization unit under standardized pressure	
Final appearance of the acrylic plate (occlusal view of the working model)	

Appendix Table 2: Second Case

The second case illustrates a thermoforming workflow for producing a transparent orthodontic splint. After the working model is cast, it undergoes engraving to optimize material adaptation. A thermoplastic sheet is positioned in the DruformatTE unit before thermoforming, ensuring precise molding under controlled pressure and temperature. Subsequent refinement of the splint is achieved using rotary burs, improving both comfort and aesthetics. The sequence concludes with images of the final appliance, including a vestibular view, which emphasize the improved accuracy and reproducibility characteristic of digitally assisted and thermoformed appliances.

Appendix Table 2.

Cast model and thermoplastic sheet	
Engraving of the working model	

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DruformatTE appliance positioned prior to thermoforming	
Finishing of the splint using rotary burs	
Final appearance of the splint – vestibular view