

**POLITEKNIK KESEHATAN TANJUNGPINANG
JURUSAN TEKNIK GIGI**

Laporan Tugas Akhir, 13 Juni 2025

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Pembuatan *Night Guard* Akrilik Rahang Atas Untuk Mencegah Kerusakan Gigi
Akibat Kebiasaan *Bruxism*

XV + 37 Halaman + 18 Gambar + 3 Tabel + 8 Lampiran

RINGKASAN

Bruxism adalah kebiasaan buruk menggesekkan gigi yang dapat menyebabkan kerusakan pada jaringan keras gigi, gangguan *TMJ*, dan ketidakseimbangan oklusi. Salah satu cara untuk mengurangi dampak *bruxism* adalah penggunaan alat *night guard*. Penulis mendapatkan kasus tentang pembuatan *night guard* akrilik rahang atas pada pasien yang mengalami gangguan *TMJ* serta *atrasi* pada gigi anterior rahang atas dan bawah akibat *bruxism*.

Tujuan penulisan laporan tugas akhir ini adalah untuk mengetahui desain *night guard* akrilik rahang atas agar mendapatkan retensi dan stabilisasi, kelebihan dan kekurangan serta kendala dan cara mengatasinya.

Prosedur pembuatan meliputi persiapan model kerja, *transfer* desain, penanaman okludator, pembuatan pola malam, *flasking*, *boiling out*, *packing*, *curing*, *deflasking*, *finishing*, dan *polishing*.

Hasil, insersi ke pasien retensi dan stabilisasi baik, cekat serta mudah dilepas pasang. Simpulan, desain *night guard* menggunakan jenis *full coverage* yang menutupi permukaan *incisal* dan oklusal dengan perluasan basis dari molar dua *sinistra* sampai molar dua *dextra*. Permukaan palatal sampai *rugae palatina* kedua seperti tapal kuda serta permukaan oklusal memiliki jejak *incisal* dan oklusal rahang bawah. Retensi idapatkan dari adaptasi yang cekat pada seluruh permukaan oklusal dan *undercut* alami pada area servikal palatal gigi *posterior*. Stabilisasi didapatkan dari perluasan basis. Kelebihan alat *night guard* dari *ortho resin clear* adalah lebih estetik, ringan, mudah dimanipulasi dan biaya terjangkau. Kekurangannya, mudah retak dan menyerap air. Kendala, terdapat porus pada bagian palatal akibat tekanan *packing* yang kurang, diatasi dengan membuang bagian yang porus dan direparasi menggunakan *self cure acrylic*. Saran, tekanan saat proses *packing* harus benar agar akrilik mengisi *mould space* dengan tepat dan merata.

Kata kunci : *Bruxism*, *Night Guard*, Akrilik

Daftar bacaan : 26 (1978-2024)

**TANJUNGKARANG HEALTH POLYTECHNIC
DENTAL TECHNICIAN DEPARTMENT**

Final Project Report, 13 June 2025

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Fabrication of a maxillary acrylic night guard to prevent tooth damage caused by bruxism

XV + 37 Pages + 18 Images + 3 Tables + 8 Attachments

ABSTRACT

Bruxism is a bad habit of grinding teeth that can cause damage to hard tooth tissue, TMJ disorders, and occlusion imbalance. One way to reduce the impact of bruxism is to use a night guard device. The author found a case about making an acrylic night guard for the upper jaw in a patient who experienced TMJ disorders and attrition of the upper and lower anterior teeth due to bruxism.

The purpose of writing this final project report is to determine the design of an acrylic night guard for the upper jaw to obtain retention and stabilization, advantages and disadvantages as well as obstacles and how to overcome them.

The manufacturing procedure includes preparation of working models, design transfer, occluder implantation, wax pattern making, flasking, boiling out, packing, curing, deflasking, finishing, and polishing.

The results, insertion into the patient retention and stabilization are good, fixed and easy to remove and install. Conclusion, the design of the night guard uses a full coverage type that covers the incisal and occlusal surfaces with an expansion of the base from the left second molar to the right second molar. The palatal surface to the second palatine rugae is like a horseshoe and the occlusal surface has traces of the incisal and occlusal of the lower jaw. Retention is obtained from the adaptation that is tight on the entire occlusal surface and natural undercuts in the cervical palatal area of the posterior teeth. Stabilization is obtained from the expansion of the base. The advantages of the night guard device from ortho resin clear are more aesthetic, lightweight, easy to manipulate and affordable. The disadvantages are that it is easy to crack and absorb water. The obstacle is that there is a porous part on the palatal part due to insufficient packing pressure, overcome by removing the porous part and patching it using self-cure acrylic. Suggestion, the pressure during the packing process must be correct so that the acrylic fills the mold space properly and evenly.

Keywords : Bruxism, Night Guard, Acrylic

Readinglis : 26 (1978-2024)