

## DAFTAR PUSTAKA

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## LAMPIRAN

### Lampiran 1. Dokumentasi Penelitian



Skrining dan pemeriksaan sampel



Pemeriksaan MRI



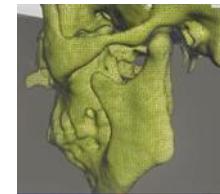
Penentuan posisi diskus dan diagnosa



Pengukuran ketebalan splint



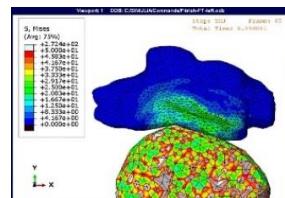
Pemasangan splint stabilisasi



Pembuatan model 3D



Pendefinisan Biomekanika TMJ



Simulasi FEA

**Lampiran 2.** Formulir persetujuan sampel dan instrumen penelitian

**SURAT PERNYATAAN KESEDIAAN MENJADI SUBJEK PENELITIAN**

Nama :

Usia :

Jenis Kelamin : Laki-laki / Perempuan

Setelah mendapat penjelasan secukupnya mengenai manfaat dan resiko penelitian dengan judul:

**“PENGARUH PEMAKAIAN SPLINT STABILISASI PADA PASIEN DISC  
DISPLACEMENT WITHOUT REDUCTION TERHADAP POLA  
DISTRIBUSI TEKANAN PADA DISKUS TEMPOROMANDIBULAR  
MENGGUNAKAN**

**FINITE ELEMENT ANALYSIS :  
SEBUAH PENELITIAN PENDAHULUAN”**

Dengan ini menyatakan bahwa saya bersedia dengan suka rela berpartisipasi menjadi subjek penelitian tersebut.

Demikian pernyataan ini saya buat dengan sebenarnya dengan penuh kesadaran dan tanpa paksaan.

Makassar,

Peneliti

Yang Berpartisipasi

(drg. Eka Fibrianti )

( )

### Lampiran 3. Etik Penelitian



KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI  
 UNIVERSITAS HASANUDDIN  
 FAKULTAS KEDOKTERAN GIGI  
 RUMAH SAKIT GIGI DAN MULUT  
 KOMITE ETIK PENELITIAN KESEHATAN  
 Sekretariat : Lantai 2, Gedung Lama RSGM Unhas  
 JL. Kandea No. 5 Makassar



Contact Person: drg. Muhammad Ikbal, Sp.Pres/Nur Aedah AR TELP. 081342971011/08114919191

#### REKOMENDASI PERSETUJUAN ETIK

Nomor: 0143/PL.09/KEPK-FKG-RSGM UNHAS/2023

Tanggal: 28 Juli 2023

Dengan ini menyatakan bahwa protokol dan dokumen yang berhubungan dengan protokol berikut ini telah mendapatkan persetujuan etik:

No. Protokol	UH 17120882	No Protokol Sponsor	
Peneliti Utama	drg. Acing Habibie Mude, Ph.D, Sp.Pros (K)	Sponsor	LPPM
Judul Peneliti	Efek Pemakaian Splint Stabilisasi Pada Pasien Temporomandibular Disorder Terhadap Distribusi Tekanan Pada Diskus Temporomandibular Menggunakan Finite Element Analysis		
No. Versi Protokol	1	Tanggal Versi	18 Juli 2023
No. Versi Protokol		Tanggal Versi	
Tempat Penelitian	Departemen Prostodonsia RSGMP UNHAS		
Dokumen Lain			
Jenis Review	<input checked="" type="checkbox"/> Exempted <input type="checkbox"/> Expedited <input type="checkbox"/> Fullboard	Masa Berlaku 28 Juli 2023-28 Juli 2023	Frekuensi Review Lanjutan
Ketua Komisi Etik Penelitian	Nama: Dr. drg. Marhamah, M.Kes	Tanda Tangan 	Tanggal
Sekretaris Komisi Etik Penelitian	Nama: drg. Muhammad Ikbal, Sp.Pros	Tanda Tangan 	Tanggal

Kewajiban peneliti utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum diimplementasikan
- Menyerahkan laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan lapor SUSAR dalam 72 jam setelah peneliti utama menerima laporan.
- Menyerahkan laporan kemajuan (*progress report*) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah.
- Menyerahkan laporan akhir setelah penelitian berakhir.
- Melaporkan penyimpangan dari protokol yang disetujui (*protocol deviation/violation*)
- Mematuhi semua aturan yang berlaku.

#### **Lampiran 4. Instrumen Penelitian**

### **Criteria Diagnosis untuk Kelainan Temporomandibular Symptom Questionnaire**

Nama Pasien \_\_\_\_\_ Tanggal \_\_\_\_\_

#### **RASA SAKIT**

1. Apakah anda pernah merasakan sakit di rahang, pelipis, di telinga atau di depan telinga pada kedua sisi?

Tidak       Ya

**Jika anda menjawab Tidak, kemudian lanjut ke pertanyaan no. 5**

2. Berapa tahun atau bulan yang lalu anda mulai merasakan sakit pada rahang, pelipis, di telinga, atau di depan telinga?      Tahun \_\_\_\_\_ bulan \_\_\_\_\_

3. Dalam 30 hari terakhir, kondisi yang paling tepat untuk menggambarkan sakit pada rahang, pelipis, di telinga, atau di depan telinga pada kedua sisi?

Pilih salah satu

**Jika anda menjawab Tidak untuk pertanyaan no 3, kemudian lanjut ke pertanyaan no.5.**

4. Dalam 30 hari terakhir, apakah kegiatan berikut ini mengubah rasa sakit (Seperti, menjadi lebih baik atau menjadi lebih buruk) pada rahang anda, pelipis, di telinga, atau di depan telinga pada kedua sisi?

- A. Mengunyah makanan yang keras
- B. Membuka mulut, atau menggerakkan rahang ke depan atau ke sisi lain
- C. Kebiasaan rahang seperti menahan gigi beroklusi, gertakkan gigi/menggerinding gigi, atau mengunyah permen karet
- D. Aktivitas rahang lain seperti berbicara, mencium, atau menguap

#### **SAKIT KEPALA**

5. Dalam 30 hari terakhir, apakah anda merasakan sakit kepala yang meliputi daerah pelipis di kepala anda?

**Jika anda menjawab Tidak di pertanyaan no.5, kemudian lanjut ke pertanyaan no. 8.**

6. Berapa tahun atau bulan yang lalu sakit mulai anda rasakan untuk pertama kali pada area pelipis kepala?

tahun \_\_\_\_\_ bulan \_\_\_\_\_

7. Dalam 30 hari terakhir, apakah kegiatan berikut ini mengubah rasa sakit (Seperti, menjadi lebih baik atau menjadi lebih buruk) pada daerah pelipis pada kedua sisi?

- A. Mengunyah makanan yang keras
- B. Membuka mulut, atau menggerakkan rahang ke depan atau ke sisi lain
- C. Kebiasaan rahang seperti menahan gigi beroklusi, gertakkan gigi/menggerinding gigi, atau mengunyah permen karet
- D. Aktivitas rahang lain seperti berbicara, mencium, atau menguap

#### **BUNYI SENDI RAHANG**

8. Dalam 30 hari terakhir, apakah anda merasakan bunyi sendi saat menggerakkan atau menggunakan rahang anda?

#### **RAHANG TERKUNCI SAAT TERTUTUP**

9. Apakah rahang anda pernah terkunci, meski hanya untuk beberapa saat, sehingga tidak bisa terbuka sama sekali?

**Jika anda menjawab TIDAK untuk pertanyaan no.9 kemudian pindah ke pertanyaan no.13**

10. Apakah pernah rahang anda terkunci sehingga cukup membuat anda terbatas untuk membuka mulut dan mengganggu untuk kemampuan untuk makan?

11. Dalam 30 hari terakhir, apakah rahang anda terkunci sehingga anda tidak dapat membuka mulut sama sekali meskipun hanya untuk sesaat, dan kemudian terlepas sehingga anda dapat membuka?

**Jika anda menjawab TIDAK untuk pertanyaan no 11 kemudian lanjut ke pertanyaan no 13**

12. Apakah saat ini rahang anda terkunci atau terbatas sehingga tidak dapat membuka secara keseluruhan?

#### **RAHANG TERKUNCI SAAT MEMBUKA**

13. Dalam 30 hari terakhir, saat anda membuka mulut lebar, apakah rahang anda terkunci atau meski hanya beberapa saat, seperti anda tidak dapat menutup dari posisi terbuka lebar?

**Jika anda menjawab TIDAK untuk pertanyaan 13 maka anda telah selesai mengisi kuesioner ini**

14. Dalam 30 hari terakhir, saat rahang anda terkunci atau pada terbuka lebar, apakah anda harus melakukan sesuatu untuk membuatnya tertutup, termasuk istirahat, bergerak, menekan, atau memutarnya?

## Ceklis Kebiasaan Yang Berkaitan Dengan Aktivitas Rongga Mulut

**Nama:**

**Umur:**

Seberapa sering anda melakukan kebiasaan seperti yang tertulis dibawah ini. Isilah berdasarkan pada **kondisi bulan terakhir?** **Apabila frekuensinya bervariasi, maka pilihlah opsi mana yang paling sering.** Berikan tanda (**v**) pada setiap item dan isilah semua item.

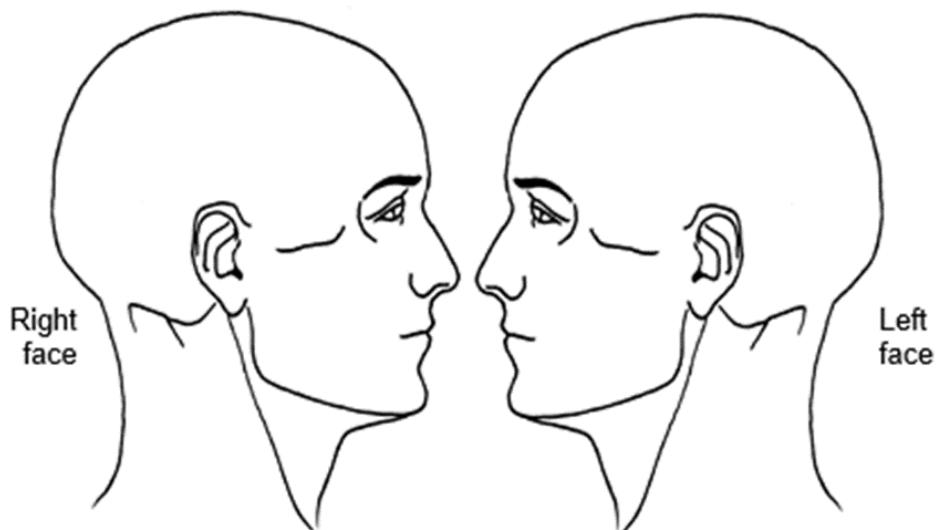
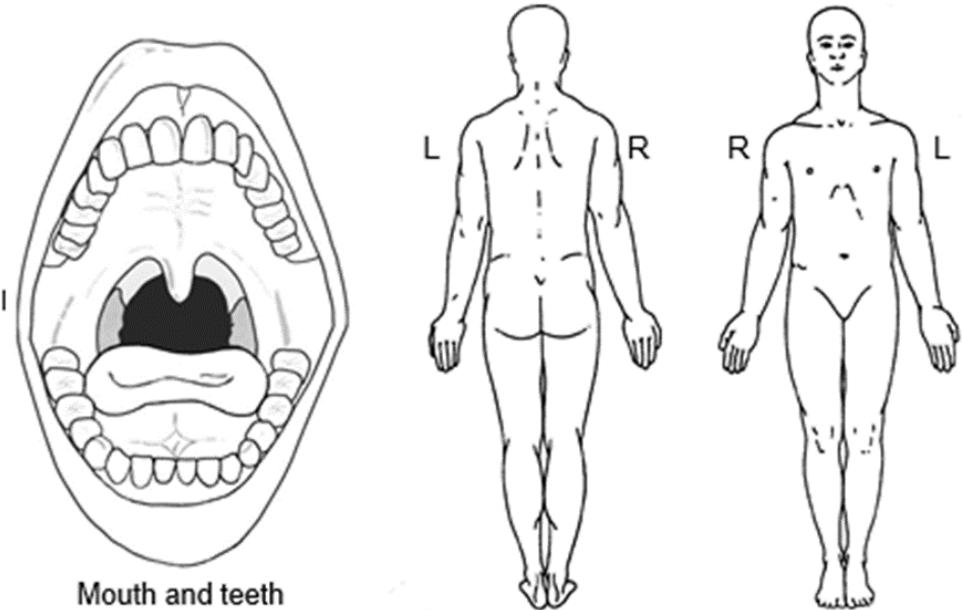
	Aktivitas Saat Tidur	Tidak pernah	<1 malam /bulan	1-3 malam /bulan	1-3 malam/minggu	4-7 malam/minggu
1	Mengatupkan gigi (Clenching) atau menggrinding gigi saat tidur, berdasarkan pada informasi yang anda miliki.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Posisi tidur yang memberikan tekanan pada rahang (Contoh, pada perut, pada satu sisi)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aktivitas Saat Tidak Tidur (Saat terjaga)		Tidak pernah	Jarang	Kadang-kadang	Sering	Sepanjang waktu
3	Menggrinding gigi saat terjaga	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Mengatupkan gigi (Clenching) saat terjaga	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Menekan, menyentuh, atau menahan (Gigi atas dan bawah) bersamaan kecuali saat makan (Contoh, kontak antara gigi atas dan bawah).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Menahan, mengeraskan, atau memberikan tekanan pada otot tanpa mengatupkan gigi atau membawa gigi oklusi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Menahan atau mendorong rahang ke depan atau ke samping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Mendorong gigi dengan lidah.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Menempatkan lidah di antara gigi.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Mengigit, mengunyah, atau memainkan lidah, pipi atau bibir.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Menahan posisi rahang dengan posisi yang kaku atau dengan tekanan, seperti melindungi rahang.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Menahan antara gigi atau mengigit sesuatu seperti rambut, pipa, pensil, pulpen, jari	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

tangan, kuku tangan dsb.

- |    |   |  |  |  |  |  |
|----|---|--|--|--|--|--|
| 13 | Mengunyah permen karet.   | <input type="checkbox"/>                             |
| 14 | Memainkan alat musik yang menggunakan mulut atau rahang (Seperti, suling, terompet atau alat dengan senar). | <input type="checkbox"/>                             |
| 15 | Menahan rahang dengan tangan, seperti beristirahat dengan menopang dagu.                                    | <input type="checkbox"/>                             |
| 16 | Mengunyah makanan dengan hanya satu sisi.   | <input type="checkbox"/>                             |
| 17 | Makan di antara waktu makan (Contoh, makanan yang membutuhkan proses mengunyah).                            | <input type="checkbox"/>                             |
| 18 | Berbicara dalam waktu lama (Seperti, mengajar, menjual, customer service).                                  | <input type="checkbox"/>                             |
| 19 | Menyanyi.   | <input type="checkbox"/><br><input type="checkbox"/> |
| 20 | Menguap.  | <input type="checkbox"/><br><input type="checkbox"/> |
| 21 | Menahan telepon di antara kepala dan bahu.  | <input type="checkbox"/><br><input type="checkbox"/> |

## PAIN DRAWING

Indicate the location of ALL of your different pains by shading in the area, using the diagrams that are most relevant. If there is an exact spot where the pain is located, indicate with a solid dot (•). If your pain moves from one location to another, use arrows to show the path.

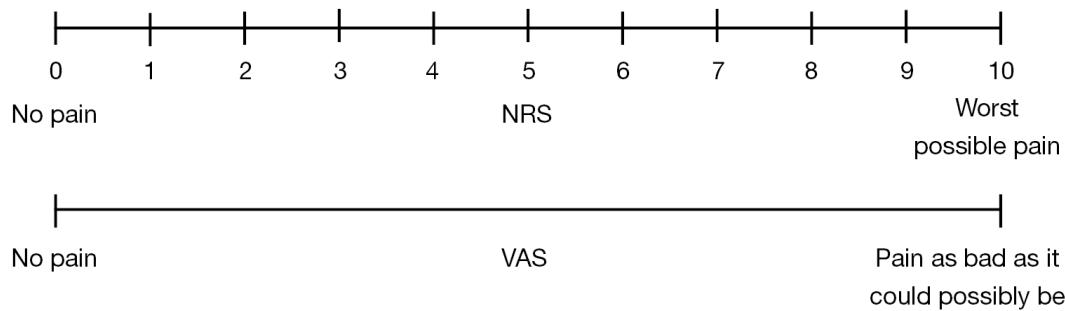


### Jaw Functional Limitation Scale

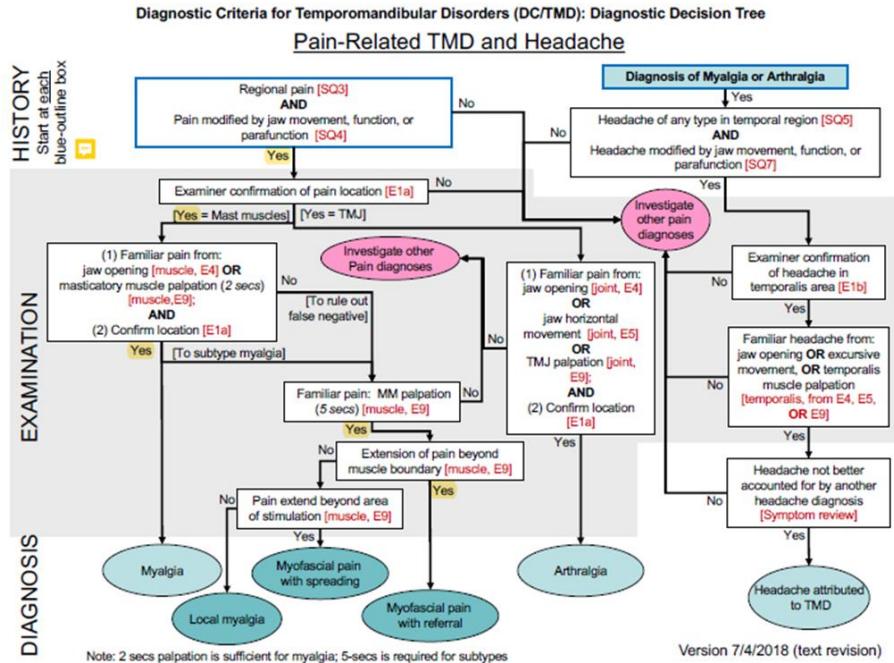
For each of the items below, please indicate the level of limitation during the last month. If the activity has been completely avoided because it is too difficult, then circle '10'. If you avoid an activity for reasons other than pain or difficulty, leave the item blank.

	No limitation										Severe Limitation	
	0	1	2	3	4	5	6	7	8	9	10	
1. Chew tough food	0	1	2	3	4	5	6	7	8	9	10	
2. Chew chicken (e.g., prepared in oven)	0	1	2	3	4	5	6	7	8	9	10	
3. Eat soft food requiring no chewing (e.g., mashed potatoes, apple sauce, pudding, pureed food)	0	1	2	3	4	5	6	7	8	9	10	
4. Open wide enough to drink from a cup	0	1	2	3	4	5	6	7	8	9	10	
5. Swallow	0	1	2	3	4	5	6	7	8	9	10	
6. Yawn	0	1	2	3	4	5	6	7	8	9	10	
7. Talk	0	1	2	3	4	5	6	7	8	9	10	
8. Smile	0	1	2	3	4	5	6	7	8	9	10	

### Pengukur Skala Nyeri (VAS)



### Diagnosis Nyeri



## Diagnosis Sendi

