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## LAMPIRAN

### Lampiran 1. Ijin etik penelitian



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI  
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN  
KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN  
RIPEN UNIVERSITAS HASANUDDIN  
RSUP Dr. WAHIDIN SUDIRICH/USDO MAKASSAR  
Sekretariat : Lantai 2 Gedung Laboratorium Terpadu  
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Gedung Bekerja di: Agropolis Sultan. Ahmad Yani, Jgk. TSL, 90245B00008, 0811 7200000, Fax : 0811 7200049



#### REKOMENDASI PERSETUJUAN ETIK

Nomor : 29/UN4.6.4.5.31/PP16/2024

Tanggal : 12 Januari 2024

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH23120922	No Sponsor	
Peneliti Utama	dr. ASTI KRISTIANTI, SpTHT-BKL, M. Kes	Sponsor	
Judul Penelitian	PERBANDINGAN KADAR GLUTATION PEROKSIDASE, KADAR MALONDIALDEHID, GAMBARAN AULIHOGRAM, DAN GAMBARAN DPOAE ANTARA PRAHIBIT YANG MENGGUNAKAN ALAT PELINDUNG PENDENGARAN STANDAR DENGAN YANG MENGGUNAKAN ALAT PELINDUNG PENDENGARAN MODIFIKASI		
No. Versi Protokol	2	Tanggal Versi	11 Januari 2024
No. Versi PSP	2	Tanggal Versi	11 Januari 2024
Tempat Penelitian	Pusat Pendidikan Dokter Medis (Pusdik Armed) Kodiklat TNI-AD di Jawa Barat dan Unit Penelitian Kesehatan Fakultas Kedokteran Universitas Padjadjaran (UPK-FK UNPAD)		
Jenis Review	<input type="checkbox"/> Exempted <input type="checkbox"/> Expedited <input checked="" type="checkbox"/> Fullboard Tanggal 11 Januari 2024	Masa Berlaku	Frekuensi review lanjutan
		12 Januari 2024 sampai 12 Januari 2025	insistasi
Ketua KEP Universitas Hasanuddin	Nama Prof. dr. Muh Nurrohmah Masri, PhD, SpMK, Subsp. Bakti(K)	Tandatangan	
Sekretaris KEP Universitas Hasanuddin	Nama dr. Firdaus Hamid, PhD, SpMK(K)	Tandatangan	

#### Revisi dan Persetujuan

- Menyetujui dan Amankan Protokol untuk persetujuan setelah di implementasikan
- Menyediakan Laporan MUI ke Komisi Etik dalam 24 jam dan diunggah dalam 7 hari dan Laporan MUI di dalam 12 jam setelah Penelitian diimplementasikan
- Menyediakan Laporan Kemajuan (progress report) setiap 6 bulan etik penelitian untuk diunggah dan setiap setahun untuk penelitian selesai selesai
- Menyediakan laporan akhir setelah Penelitian selesai
- Melaksanakan penyesuaian dari protokol yang diusulkan (revisi) dan review / revisi
- Menunuti semua peraturan yang ditetapkan

## Lampiran 2. Persetujuan setelah penjelasan

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI



UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN  
KOMITE ETIK PENELITIAN KESEHATAN  
RSPTN UNIVERSITAS HASANUDDIN  
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR



Sekretariat : Lantai 2 Gedung Laboratorium Terpadu  
JL. PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.70 MAKASSAR 90245.  
Contact Person: dr. Aguslatifih Bukhari, M.Med, PhD, SpCK TELP. : 081241850858, 0411 5780103, Fax: 0411 581431

### FORMULIR PERSETUJUAN SETELAH PENJELASAN

Saya yang bertandatangan di bawah ini :

Nama : .....  
Umur : .....  
Nomor HP : .....  
Satuan : .....  
Alamat : .....

setelah mendengar/membaca dan mengerti penjelasan yang diberikan mengenai tujuan, manfaat, dan apa yang akan dilakukan pada penelitian ini, menyatakan setuju untuk ikut dalam penelitian ini secara sukarela tanpa paksaan.

Saya tahu bahwa keikutsertaan saya ini bersifat sukarela tanpa paksaan, sehingga saya bisa menolak ikut atau mengundurkan diri dari penelitian ini. Saya berhak bertanya atau meminta penjelasan pada peneliti bila masih ada hal yang belum jelas atau masih ada hal yang ingin saya ketahui tentang penelitian ini.

Saya juga mengerti bahwa semua biaya yang dikeluarkan sehubungan dengan penelitian ini, akan ditanggung oleh peneliti. Saya percaya bahwa keamanan dan kerahasiaan data penelitian akan terjamin dan saya dengan ini menyetujui semua data saya yang dihasilkan pada penelitian ini untuk disajikan dalam bentuk lisan maupun tulisan.

Dengan membubuhkan tandatangan saya di bawah ini, saya menegaskan keikutsertaan saya secara sukarela dalam studi penelitian ini.

	<b>Nama</b>	<b>Tanda tangan</b>	<b>Tgl/Bln/Thn</b>
Responden	.....	.....	.....

**Penanggung jawab penelitian :**

Nama : Asti Kristianti, dr., SpTHT-BKL, M. Kes  
Alamat : Departemen THT RS TK II Dustira,  
Jalan Rumah Sakit No. 1 Cimahi  
Tlp : 0811224736

**Penanggung jawab Medis :**

Nama : Yudith Yunia, dr., SpPD,  
M.Kes  
Alamat : Dept. IPD RS Dustira  
Tlp : 081322047366

### Lampiran 3. Kuesioner penelitian

#### KUESIONER SEBELUM LATIHAN MENEMBAK MERIAM HOWITZER

105

Nama : .....  
Usia : .....  
Alamat : .....  
No. Telp : .....

#### Anamnesis Faktor Risiko Gangguan Dengar

- Apakah Anda merasakan gangguan pendengaran?
  - Ya
  - Tidak
- Apakah Anda merasakan telinga bergemuruh/berdenging (tinnitus)?
  - Ya
  - Tidak
- Apakah Anda merasakan gangguan keseimbangan?
  - Ya
  - Tidak
- Apakah terdapat keluhan keluar cairan dari telinga?
  - Ya
  - Tidak
- Apakah terdapat riwayat gendang telinga berlubang?
  - Ya
  - Tidak
- Apakah ada riwayat merokok?
  - Ya
  - Tidak

Jika ya, berapa banyak batang rokok yang dihabiskan dalam sehari?  
.....
- Apakah terdapat riwayat mendengar suara yang sangat keras (seperti ledakan dan petasan jarak dekat)?

- Ya
- Tidak
- Apakah terdapat riwayat penggunaan alat bantu mendengar musik/PLDs (*earphone, headset*)?
  - Ya
  - Tidak

Jika ya, berapa lama penggunaannya terus menerus sekali pakai dan berapa lama dalam sehari?

.....

Sudah berapa lama penggunaan PLDs berlangsung?

.....

- Apakah terdapat riwayat gangguan pendengaran dengan sebab yang tidak diketahui pada keluarga ?
  - Ya
  - Tidak
- Apakah Anda memiliki riwayat pengobatan/konsumsi antioksidan jangka panjang?
 

(Misal: obat TBC/Malaria/Kemoterapi/antioksidan/vitamin)

  - Ya
  - Tidak
- Apakah terdapat riwayat benjolan di leher/mimisan?
  - Ya
  - Tidak
- Apakah sedang menderita penyakit darah tinggi dan kencing manis?
  - Ya
  - Tidak

**Hasil pemeriksaan**

1. Tekanan Darah : .....MmHg
2. Otoskopi  
    Kanaliskus eksternus : sekret - serumen  
    Membran timpani : intak - perforasi
3. Audiometri  
    Ambang dengar : ..... Desibel  
    Normal  
    Gangguan dengar konduktif  
    Gangguan dengar sensorineural
4. Timpanometri : tipe A – B – C – D
5. Otoacoustic emission : Pass - Refer
6. Strip Glukosameter : Negatif – Positif

Cimahi, Mei 2024  
Kolektor data

( \_\_\_\_\_ )

**KUESIONER SESUDAH LATIHAN MENEMBAK MERIAM HOWITZER**  
**105**

Nama : .....

Usia : .....

Alamat : .....

No. Telp : .....

**Anamnesis Faktor Risiko Gangguan Dengar**

- Apakah Anda menggunakan alat pelindung telinga saat kegiatan?

- Ya
- Tidak

Jika ya, apa jenis alat pelindung telinga yang digunakan?

- Earplugs
- Earmuff
- Lainnya:

.....

Berapa lama penggunaan alat pelindung telinga? (menit)

- Selama latihan
- Lainnya:

.....

- Apakah ada keluhan sesaat setelah latihan?

- Ya
- Tidak

Jika ya, Apakah ada keluhan pendengaran menurun?

- Ya
- Tidak

Apakah ada keluhan telinga terasa penuh/tersumbat?

- Ya
- Tidak

Apakah ada keluhan telinga berdenging/bergemuruh (tinnitus)?

- Ya

o Tidak

Apakah ada keluhan gangguan keseimbangan?

o Ya

o Tidak

Apakah ada keluhan sakit pada telinga?

o Ya

o Tidak

Apakah ada keluar cairan/darah dari telinga?

o Ya

o Tidak

Apakah ada keluhan mual/muntah?

o Ya

o Tidak

**Hasil pemeriksaan:**

1. Tekanan Darah : .....MmHg

2. Otoskopi

Kanalis akustikus eksternus : sekret - serumen

Membran timpani : intak - perforasi

3. Audiometri

Ambang dengar : ..... Desibel

Normal

Gangguan dengar konduktif

Gangguan dengar sensorineural

4. Timpanometri : tipe A - B - C - D

5. Otoacoustic emission : Pass - Refer

Cimahi, Juni 2024

Kolektor data

( \_\_\_\_\_ )

#### Lampiran 4. Rekapitulasi subjek penelitian

NO	APT	AUDIOMETRI		OAE		GPX		MDA	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	Modifikasi	Normal	Normal	pass/pass	pass/pass	14,05	9,49	1,67	1,5
2	Modifikasi	Normal	Normal	pass/pass	pass/pass	16,73	6,2	8,83	6,67
3	Modifikasi	Normal	Normal	pass/pass	pass/refer	9,16	9,15	3,83	3,67
4	Modifikasi	Normal	Normal	pass/pass	pass/pass	9,68	8,9	10,17	3,83
5	Modifikasi	Normal	Normal	pass/pass	pass/pass	11,82	7,47	7,33	6,67
6	Modifikasi	Normal	Normal	pass/pass	pass/pass	6,53	6,2	7,83	2,83
7	Modifikasi	Normal	Normal	pass/pass	pass/pass	18,24	4,95	6,33	6,17
8	Modifikasi	Normal	Normal	pass/pass	pass/pass	3,15	2,88	6	5,83
9	Modifikasi	Normal	Normal	pass/pass	pass/pass	9,32	7,45	10	4,17
10	Modifikasi	Normal	Normal	pass/pass	pass/pass	6,51	6,2	3,5	1,5
11	Modifikasi	Normal	Normal	pass/pass	pass/pass	8,84	10,94	6	4,33
12	Modifikasi	Normal	Normal	pass/pass	pass/pass	8,27	5,52	9,33	2,33
13	Modifikasi	Normal	Normal	pass/pass	pass/refer	7,98	9,83	1,67	2,17
14	Modifikasi	Normal	Normal	pass/pass	pass/pass	1,86	9,39	4,33	4,67
15	Modifikasi	Normal	Normal	pass/pass	pass/pass	0,46	5,91	5,67	11,2
16	Modifikasi	Normal	Normal	pass/pass	pass/pass	6,28	9,91	8	10,8
17	Modifikasi	Normal	Normal	pass/pass	pass/refer	6,17	4,65	7,33	3
18	Modifikasi	Normal	Normal	pass/pass	pass/pass	6,97	8,97	8,5	13,2
19	Modifikasi	Normal	Normal	pass/pass	pass/pass	8,75	6,61	2,67	1,67
20	Modifikasi	Normal	Normal	pass/pass	pass/pass	10,93	7,37	6,5	7,33
21	Standar	Normal	Normal	pass/pass	refer/pass	9,76	9,65	4,5	4,33
22	Standar	Normal	Normal	pass/pass	pass/pass	11,97	9,15	3,33	3
23	Standar	Normal	Normal	pass/pass	pass/pass	7,65	9,99	3,67	4
24	Standar	Normal	Normal	pass/pass	pass/pass	7,97	7,71	3	2,5
25	Standar	Normal	Normal	pass/pass	pass/refer	7,81	9,65	9,33	5,33
26	Standar	Normal	Normal	pass/pass	pass/pass	12,52	9,36	6,33	5,33
27	Standar	Normal	Normal	pass/pass	pass/pass	6,07	5,91	6	5,83
28	Standar	Normal	Normal	pass/pass	pass/refer	7,4	7,37	4,33	3,17
29	Standar	Normal	Normal	pass/pass	pass/pass	8,15	3,66	6	5,83
30	Standar	Normal	Normal	pass/pass	pass/pass	3,71	3,42	9,17	2,83
31	Standar	Normal	Normal	pass/pass	refer/pass	6,33	8,9	1,67	10,5
32	Standar	Normal	Normal	pass/pass	pass/refer	5,92	5,52	2	1,83

33	Standar	Normal	Normal	pass/pass	pass/pass	8,77	8,54	8	3
34	Standar	Normal	Normal	pass/pass	refer/pass	9,54	8,79	3	2,67
35	Standar	Normal	Normal	pass/pass	refer/refer	8,51	6,92	9,17	9
36	Standar	Normal	Normal	pass/pass	pass/refer	14,67	9,94	9,17	6,5
37	Standar	Normal	Normal	pass/pass	refer/refer	10,99	2,88	6,33	2,17
38	Standar	Normal	Normal	pass/pass	pass/pass	30,61	5,95	3	1,83
39	Standar	Normal	Normal	pass/pass	pass/refer	8,47	7,32	1,67	1,33
40	Standar	Normal	Normal	pass/pass	pass/pass	12,92	5,69	5,17	4,67

## Lampiran 5. Analisis data statistik

### A. Kelompok APP Standar

#### Statistics

		GPX_PRE	GPX_POST	MDA_PRE	MDA_POST
N	Valid	20	20	20	20
	Missing	0	0	0	0
Mean		9.9870	7.3160	5.2420	4.2825
Median		8.4900	7.5400	4.8350	3.5850
Mode		3.71 <sup>a</sup>	9.65	3.00 <sup>a</sup>	1.83 <sup>a</sup>
Std. Deviation		5.53650	2.25835	2.64322	2.41344
Minimum		3.71	2.88	1.67	1.33
Maximum		30.61	9.99	9.33	10.50

a. Multiple modes exist. The smallest value is shown

#### Statistics

		GPX	MDA	AUDIOMETRI_PRE	AUDIOMETRI_POST	OAE_PRE	OAE_POST
N	Valid	20	20	20	20	20	20
	Missing	0	0	0	0	0	0

#### GPX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MENINGKAT/TETA P	3	15.0	15.0	15.0
	MENURUN	17	85.0	85.0	100.0
Total		20	100.0	100.0	

#### MDA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MENURUN	18	90.0	90.0	90.0
	MENINGKAT/TETA P	2	10.0	10.0	100.0
Total		20	100.0	100.0	

#### AUDIOMETRI\_PRE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NORMAL	20	100.0	100.0	100.0

**AUDIOMETRI\_POST**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NORMAL	20	100.0	100.0	100.0

**OAE\_PRE**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PASS	20	100.0	100.0	100.0

**OAE\_POST**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PASS	10	50.0	50.0	50.0
	REFER	10	50.0	50.0	100.0
	Total	20	100.0	100.0	

**Descriptives**

		Statistic	Std. Error
GPX_PRE	Mean	9.9870	1.23800
	95% Confidence Interval for Mean	Lower Bound7.3958	
		Upper Bound12.5782	
	5% Trimmed Mean	9.1900	
	Median	8.4900	
	Variance	30.653	
	Std. Deviation	5.53650	
	Minimum	3.71	
	Maximum	30.61	
	Range	26.90	
	Interquartile Range	4.26	
	Skewness	2.907	.512
	Kurtosis	10.598	.992
GPX_POS	Mean	7.3160	.50498
	95% Confidence Interval for Mean	Lower Bound6.2591	
		Upper Bound8.3729	
	5% Trimmed Mean	7.4139	
	Median	7.5400	

	Variance		5.100	
	Std. Deviation		2.25835	
	Minimum		2.88	
	Maximum		9.99	
	Range		7.11	
	Interquartile Range		3.56	
	Skewness		-.632	.512
	Kurtosis		-.704	.992
MDA_PRE	Mean		5.2420	.59104
	95% Confidence	Lower Bound	4.0049	
	Interval for Mean	Upper Bound	6.4791	
	5% Trimmed Mean		5.2133	
	Median		4.8350	
	Variance		6.987	
	Std. Deviation		2.64322	
	Minimum		1.67	
	Maximum		9.33	
	Range		7.66	
	Interquartile Range		4.58	
	Skewness		.328	.512
	Kurtosis		-1.190	.992
MDA_POS	Mean		4.2825	.53966
T	95% Confidence	Lower Bound	3.1530	
	Interval for Mean	Upper Bound	5.4120	
	5% Trimmed Mean		4.1011	
	Median		3.5850	
	Variance		5.825	
	Std. Deviation		2.41344	
	Minimum		1.33	
	Maximum		10.50	
	Range		9.17	
	Interquartile Range		3.16	
	Skewness		1.176	.512
	Kurtosis		1.197	.992

## B. Kelompok APP Modifikasi

### Statistics

		GPX_PRE	GPX_POST	MDA_PRE	MDA_POST
N	Valid	20	20	20	20
	Missing	0	0	0	0
Mean		8.5850	7.3995	6.2745	5.1755
Median		8.5100	7.4100	6.4150	4.2500
Mode		.46 <sup>a</sup>	6.20	1.67 <sup>a</sup>	1.50 <sup>a</sup>
Std. Deviation		4.41934	2.12187	2.62497	3.36448
Minimum		.46	2.88	1.67	1.50
Maximum		18.24	10.94	10.17	13.17

a. Multiple modes exist. The smallest value is shown

### GPX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MENINGKAT/TETA P	6	30.0	30.0	30.0
	MENURUN	14	70.0	70.0	100.0
Total		20	100.0	100.0	

### MDA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MENURUN	14	70.0	70.0	70.0
	MENINGKAT/TETA P	6	30.0	30.0	100.0
Total		20	100.0	100.0	

### AUDIOMETRI\_PRE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NORMAL	20	100.0	100.0	100.0

### AUDIOMETRI\_POST

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NORMAL	20	100.0	100.0	100.0

### OAE\_PRE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PASS	20	100.0	100.0	100.0

### OAE\_POST

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PASS	17	85.0	85.0	85.0
	REFER	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

## C. Uji Normalitas

### Descriptives

			Statistic	Std. Error
GPX_PRE	Mean		8.5850	.98819
	95% Confidence Interval for Mean	Lower Bound	6.5167	
		Upper Bound	10.6533	
	5% Trimmed Mean		8.5000	
	Median		8.5100	
	Variance		19.531	
	Std. Deviation		4.41934	
	Minimum		.46	
	Maximum		18.24	
	Range		17.78	
	Interquartile Range		4.28	
	Skewness		.408	.512
	Kurtosis		.534	.992
GPX_POST	Mean		7.3995	.47447
	95% Confidence Interval for Mean	Lower Bound	6.4064	
		Upper Bound	8.3926	
	5% Trimmed Mean		7.4539	
	Median		7.4100	
	Variance		4.502	

	Std. Deviation		2.12187	
	Minimum		2.88	
	Maximum		10.94	
	Range		8.06	
	Interquartile Range		3.35	
	Skewness		-.240	.512
	Kurtosis		-.612	.992
MDA_PRE	Mean		6.2745	.58696
	95% Confidence Interval for Mean	Lower Bound	5.0460	
		Upper Bound	7.5030	
	5% Trimmed Mean		6.3139	
	Median		6.4150	
	Variance		6.890	
	Std. Deviation		2.62497	
	Minimum		1.67	
	Maximum		10.17	
	Range		8.50	
	Interquartile Range		4.42	
	Skewness		-.347	.512
	Kurtosis		-.844	.992
MDA_POST	Mean		5.1755	.75232
	95% Confidence Interval for Mean	Lower Bound	3.6009	
		Upper Bound	6.7501	
	5% Trimmed Mean		4.9356	
	Median		4.2500	
	Variance		11.320	
	Std. Deviation		3.36448	
	Minimum		1.50	
	Maximum		13.17	
	Range		11.67	
	Interquartile Range		4.22	
	Skewness		1.077	.512
	Kurtosis		.496	.992

#### D. Membandingkan pre dan post

##### 1. kelompok APP standar

###### Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	GPX_PRE	9.9870	20	5.53650	1.23800
	GPX_POST	7.3160	20	2.25835	.50498

**Test Statistics<sup>a</sup>**

	GPX_POST - GPX_PRE
Z	-2.576 <sup>b</sup>
Asymp. Sig. (2-tailed)	.010

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MDA_PRE	5.2420	20	2.64322	.59104
	MDA_POST	4.2825	20	2.41344	.53966

**Test Statistics<sup>a</sup>**

	MDA_POST - MDA_PRE
Z	-2.918 <sup>b</sup>
Asymp. Sig. (2-tailed)	.004

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

**OAE\_PRE \* OAE\_POST Crosstabulation**

		OAE_POS PASS	
OAE_PRE	PASS	Count	% of Total
		10	50.0%
Total		Count	10
		% of Total	50.0%

**Test Statistics<sup>a</sup>**

	OAE_PRE & OAE_POST
N	20
Exact Sig. (2-tailed)	.002 <sup>b</sup>

a. McNemar Test

b. Binomial distribution used.

**2. Kelompok APP Modifikasi****Paired Samples Test**

Paired Differences t df Sig. (2-

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		Sig. (2-tailed)
				Lower	Upper	
Pair 1 GPX_PRE - GPX_POST	1.18	4.82338	1.07854	-1.07191	3.44291	.285

#### Paired Samples Statistics

Pair	Mean	N	Std. Deviation	Std. Error Mean
MDA_PRE	6.2745	20	2.62497	.58696
MDA_POST	5.1755	20	3.36448	.75232

#### Test Statistics<sup>a</sup>

	MDA_POST - MDA_PRE
Z	-1.531 <sup>b</sup>
Asymp. Sig. (2-tailed)	.126

- a. Wilcoxon Signed Ranks Test  
b. Based on positive ranks.

#### OAE\_PRE \* OAE\_POST Crosstabulation

		OAE_POST		Total	
		PASS	REFER		
OAE_PRE	PASS	Count	17	3	20
	% of Total	85.0%	15.0%	100.0%	
Total	Count	17	3	20	
	% of Total	85.0%	15.0%	100.0%	

#### Test Statistics<sup>a</sup>

	OAE_PRE & OAE_POST
N	20
Exact Sig. (2-tailed)	.250 <sup>b</sup>

- a. McNemar Test  
b. Binomial distribution used.

## E. Membandingkan pre dan post antara dua kelompok

### Group Statistics

	KELOMPOK	N	Mean	Std. Deviation	Std. Error Mean
GPX_PRE	EARMOULD	20	8.5850	4.41934	.98819
	EARPLUG	20	9.9870	5.53650	1.23800

#### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means			95% Conf. Interval			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
GPX_PRE	Equal variances assumed	.112	.740	-.885	38	.383	-1.40239	1.58404	-4.68971	
	Equal variances not assumed			-.885	37.221	.383	-1.40239	1.58404	-4.61398	

```

/TEST GROUPS=KELOMPOK(2)
/MODEL=ANCOVA
/POSTRES=GPX_PRE
/CRITERIA=CLUSTER
    
```

### Group Statistics

	KELOMPOK	N	Mean	Std. Deviation	Std. Error Mean
GPX_POST	EARMOULD	20	7.3995	2.12187	.47447
	EARPLUG	20	7.3160	2.25835	.50498

#### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means			95% Conf. Interval			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
GPX_POST	Equal variances assumed	.064	.714	.121	38	.905	.00333	.69291	-1.31933	
	Equal variances not assumed			.121	37.853	.905	.00333	.69291	-1.31948	

```

/TEST GROUPS=KELOMPOK(2)
/MODEL=ANCOVA
/VARIABLES=MDA_PRE
/CRITERIA=CLUSTER
    
```

### Group Statistics

	KELOMPOK	N	Mean	Std. Deviation	Std. Error Mean
MDA_PRE	EARMOULD	20	6.2745	2.62497	.58696
	EARPLUG	20	5.2420	2.64322	.59104

Independent Samples Test

		Levene's Test for Equality of Variances		t-Test for Equality of Means				95% Con- fidence Interval
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
MDA_POST	Equal variances assumed	.112	.730	1.240	38	.222	1.08250	.47289
	Equal variances not assumed			1.240	37.888	.222	1.08250	.47289

T-TEST (GROUP=KELOMPOK 2)

ANALYSIS-ANALYSIS

VARIABLE=MDA\_POST

JOINTING=CL.ME

Group Statistics

	KELOMPOK	N	Mean	Std. Deviation	Std. Error Mean
MDA_POST	EARMOULD	20	5.1755	3.36448	.75232
	EARPLUG	20	4.2825	2.41344	.53966

Independent Samples Test

		Levene's Test for Equality of Variances		t-Test for Equality of Means				95% Con- fidence Interval
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
MDA_POST	Equal variances assumed	1.230	.273	.565	38	.581	.01000	.02186
	Equal variances not assumed			.565	38.480	.581	.01000	.02186

Mann-Whitney Test

Ranks

	KELOMPOK	N	Mean Rank	Sum of Ranks
MDA_POST	EARMOULD	20	21.85	437.00
	EARPLUG	20	19.15	383.00
	Total	40		

Test Statistics<sup>a</sup>

	MDA_POST
Mann-Whitney U	173.000
Wilcoxon W	383.000
Z	-.731
Asymp. Sig. (2-tailed)	.465
Exact Sig. [2*(1-tailed Sig.)]	.478 <sup>b</sup>

a. Grouping Variable: KELOMPOK

b. Not corrected for ties.

OAE\_POST \* KELOMPOK Crosstabulation

KELOMPOK

Total

		EARMOULD		EARPLUG	
OAE_POST	PASS	Count	17	10	27
		% within KELOMPOK	85.0%	50.0%	67.5%
	REFER	Count	3	10	13
		% within KELOMPOK	15.0%	50.0%	32.5%
Total		Count	20	20	40
		% within KELOMPOK	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.584 <sup>a</sup>	1	.018		
Continuity Correction <sup>b</sup>	4.103	1	.043		
Likelihood Ratio	5.812	1	.016		
Fisher's Exact Test				.041	.020
Linear-by-Linear Association	5.444	1	.020		
N of Valid Cases	40				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.50.

b. Computed only for a 2x2 table

### Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for OAE_POST (PASS / REFER)	5.667	1.254	25.606
For cohort KELOMPOK = EARMOULD	2.728	.970	7.671
For cohort KELOMPOK = EARPLUG	.481	.271	.856
N of Valid Cases	40		

### GPX \* KELOMPOK Crosstabulation

		KELOMPOK		Total	
		EARMOULD	EARPLUG		
GPX	MENINGKAT/TEKAP	Count	6	3	9
		% within KELOMPOK	30.0%	15.0%	22.5%
	MENURUN	Count	14	17	31
		% within KELOMPOK	70.0%	85.0%	77.5%
Total		Count	20	20	40
		% within KELOMPOK	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
--	-------	----	-----------------------------------	----------------------	----------------------

Pearson Chi-Square	1.290 <sup>a</sup>	1	.256		
Continuity Correction <sup>b</sup>	.573	1	.449		
Likelihood Ratio	1.310	1	.252		
Fisher's Exact Test				.451	.225
Linear-by-Linear Association	1.258	1	.262		
N of Valid Cases	40				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 4.50.

b. Computed only for a 2x2 table

#### MDA \* KELOMPOK Crosstabulation

		KELOMPOK		Total	
		EARMOULD	EARPLUG		
MDA	MENURUN	Count	14	18	32
		% within KELOMPOK	70.0%	90.0%	80.0%
	MENINGKAT/TETAP	Count	6	2	8
		% within KELOMPOK	30.0%	10.0%	20.0%
Total		Count	20	20	40
		% within KELOMPOK	100.0%	100.0%	100.0%

#### Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.500 <sup>a</sup>	1	.114		
Continuity Correction <sup>b</sup>	1.406	1	.236		
Likelihood Ratio	2.594	1	.107		
Fisher's Exact Test				.235	.118
Linear-by-Linear Association	2.438	1	.118		
N of Valid Cases	40				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 4.00.

b. Computed only for a 2x2 table

#### Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for MDA (MENURUN / MENINGKAT/TETAP)	.259	.045	1.486
For cohort KELOMPOK = EARMOULD	.583	.333	1.022
For cohort KELOMPOK = EARPLUG	2.250	.652	7.764
N of Valid Cases	40		

## Lampiran 6. Dokumentasi penelitian

- A. Anamnesis (pengisian kuesioner), pemeriksaan tekanan darah, otoskopi, GDS, timpanometri, audiometri, DPOAE, dan pengambilan darah untuk pemeriksaan GPx dan MDA.

