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LAMPIRAN

Lampiran 1. Surat Izin Penelitian Tingkat Kota

	<p style="text-align: center;">PEMERINTAH KOTA MAKASSAR DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU SATU PINTU Jalan Ahmad Yani Nomor 2, Bulu Gading, Ujung Pandang, Kota Makassar, Sulawesi Selatan 90171 Laman dpmptsp.makassarkota.go.id Pos-el dpmptsp@makassarkota.go.id</p>		
<p><u>SURAT KETERANGAN PENELITIAN</u> Nomor : 070/254/SKP/DPMPSTSP/V/2023</p>			
Dasar	<ol style="list-style-type: none">1. Peraturan Menteri Dalam Negeri Republik Indonesia Nomor 3 Tahun 2018 tentang Penerbitan Keterangan Penelitian;2. Peraturan Daerah Kota Makassar Nomor 8 Tahun 2016 tentang Pembentukan Organisasi Perangkat Daerah;3. Peraturan Walikota Makassar Nomor 88 Tahun 2021 tentang Kedudukan, Susunan Organisasi, Tugas dan Fungsi Serta Tata Kerja Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu;4. Surat Kepala Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Provinsi Sulawesi Selatan Nomor 15670/5.01/PTSP/2023 Tanggal 17 April 2023;5. Rekomendasi Teknis Badan Kesatuan Bangsa dan Politik Kota Makassar Nomor 070/261-II/BKBP/V/2023 Tanggal 12 Mei 2023.		
<p>DENGAN INI MENERANGKAN BAHWA :</p>			
Nama	: ANGGUN INDAH LESTARI		
NIM / Jurusan	: R021191047 / Fisioterapi		
Pekerjaan	: Mahasiswa (S1) / UNHAS		
Alamat	: Jl. P. Kemerdekaan Km. 10, Makassar		
Lokasi Penelitian	: Kecamatan Tamalanrea Kota Makassar		
Waktu Penelitian	: 01 Mei s/d 01 Juni 2023		
Tujuan	: Skripsi		
Judul Penelitian	: "HUBUNGAN ANTARA LINGKAR LENGAN DENGAN KEKUATAN GENGGMAN TANGAN DAN KEMAMPUAN WEIGHT-BEARING LENGAN PADA LANJUT USIA DI KAMPUNG PARANG KOTA MAKASSAR"		
<p>Dalam melakukan kegiatan agar yang bersangkutan memenuhi ketentuan sebagai berikut :</p> <ol style="list-style-type: none">1. Surat Keterangan Penelitian ini diterbitkan untuk kepentingan penelitian yang bersangkutan selama waktu yang sudah ditentukan dalam surat keterangan ini.2. Tidak dibenarkan melakukan penelitian yang tidak sesuai / tidak ada kaitannya dengan judul dan tujuan kegiatan Penelitian.3. Melaporkan hasil penelitian kepada Kepala Badan Kesatuan Bangsa dan Politik Kota Makassar melalui email bidangpolda@kesbangpolmks@gmail.com.4. Surat Keterangan Penelitian ini dicabut kembali apabila pemegangnya tidak menaati ketentuan tersebut diatas.			
<p>Makassar, 15 Mei 2023</p>			
			<p>Ditandatangani secara elektronik oleh KEPALA DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU SATU PINTU KOTA MAKASSAR A. ZULKIFLY, S.STP., M.Si.</p>
<p>Dokumen ini telah ditandatangani secara elektronik menggunakan sertifikat elektronik yang diterbitkan oleh Balai Sertifikasi Elektronik (BSrE) Badan Siber dan Sandi Negara. Untuk memastikan keaslian tanda tangan elektronik, silakan unggah dokumen pada laman https://tse.kominfo.go.id/verifyPDF</p>			

Lampiran 2. Surat Izin Penelitian Tingkat Kelurahan



PEMERINTAH KOTA MAKASSAR
KECAMATAN TAMALANREA
KELURAHAN TAMALANREA JAYA

Jl. Al-Bhitas No. 2 Makassar 90245



SURAT KETERANGAN MELAKSANAKAN PENELITIAN

NOMOR: 130/400/TJ/V/2023

Yang bertanda tangan di bawah ini :

Nama : ALAM SYAH.S,AB

Jabatan : Plt Lurah

Dengan ini menerangkan bahwa :

Nama : **ANGGUN INDAH LESTARI**

NIM : R021191047

Jurusan : FISIOTERAPI

Fakultas : FISIOTERAPI

Alamat : JL. PERINTIS KEMERDEKAAN KM 10 KOTA MAKASSAR, RT 000/RW 000

Benar yang bersangkutan tersebut di atas telah melakukan penelitian dengan judul HUBUNGAN ANTARA LINGKAR LENGAN DENGAN KEKUATAN GENGAMAN TANGAN DAN KEMAMPUAN WEIGHT-BEARING LENGAN PADA LANJUT USIA DI KAMPUNG PARANG KOTA MAKASSAR waktu penelitian pada tanggal 01 Mei 2023 sd 01 Juni 2023 di Wilayah Kelurahan Tamalanrea Jaya Kecamatan Tamalanrea Kota Makassar dan sesuai pengantar Nomor 411/KTC/100/V/2023 Tanggal 22 Mei 2023.

Demikian surat keterangan ini diberikan dan dipergunakan **Kelengkapan Administrasi**.

Makassar, 22 Mei 2023
Plt Lurah

ALAM SYAH.S,AB
Pangkal / Penata
NIP: 196710302007011006

Lampiran 3 Surat Keterangan Lolos Kaji Etik



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN
RISET, DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN
FAKULTAS KESEHATAN MASYARAKAT
In.Perintis Kemerdekaan Km.10 Makassar 90245, Telp.(0411) 585658,
E-mail : fkunhas@gmail.com, website: <https://fkunhas.ac.id/>

REKOMENDASI PERSETUJUAN ETIK

Nomor : 3539/UN4.14.1/TP.01.02/2023

Tanggal : 11 Mei 2023

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

No.Protokol	4523091083	No. Sponsor Protokol	
Peneliti Utama	Anggun Indah Lestari	Sponsor	Pribadi
Judul Peneliti	Hubungan Antara Lingkar Lengan dengan Kekuatan Genggaman Tangan dan Kemampuan <i>Weight-Bearing</i> Lengan pada Lanjut Usia di Kampung Parang Kota Makassar		
No.Versi Protokol	1	Tanggal Versi	04 Mei 2023
No.Versi PSP	1	Tanggal Versi	04 Mei 2023
Tempat Penelitian	Kampung Parang, Kota Makassar		
Judul Review	<input checked="" type="checkbox"/> Exempted <input type="checkbox"/> Expedited <input type="checkbox"/> Fullboard	Masa Berlaku 11 Mei 2023 Sampai 11 Mei 2024	Frekuensi review lanjutan
Ketua Komisi Etik Penelitian	Nama : Prof.dr.Veni Hadju,M.Sc,Ph.D	Tanda tangan	Tanggal 11 Mei 2023
Sekretaris komisi Etik Penelitian	Nama : Dr. Wahiduddin, SKM ,M.Kes	Tanda tangan	Tanggal 11 Mei 2023

Kewajiban Peneliti Utama :

1. Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
2. Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Laporan SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
3. Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
4. Menyerahkan laporan akhir setelah Penelitian berakhir
5. Melaporakn penyimpangan dari protocol yang disetujui (protocol deviation/violation)
6. Mematuhi semua peraturan yang ditentukan

Lampiran 4. Surat Telah Menyelesaikan Penelitian



**PEMERINTAH KOTA MAKASSAR
KECAMATAN TAMALANREA
KELURAHAN TAMALANREA JAYA**

Jl. Al. – Ikhlas No. Kompleks Perdos Unhas Tamalanrea No. Telepon (0411) 590753 Kode Pos. 90245

SURAT KETERANGAN TELAH MELAKSANAKAN PENELITIAN

Nomor : 070 / 143 / TJ / V / 2023

Yang bertandatangan dibawah ini :

- a. Nama : **ALAM SYAH. S,AB**
b. Jabatan : **LURAH**

Dengan ini menyatakan bahwa :

- a. N a m a : **ANGGUN INDAH LESTARI**
b. Instansi/pekerjaan : **Mahasiswa (S1) FISIOTERAPI UNHAS MAKASSAR**
c. Alamat : **Jl.PERINTIS KEMERDEKAAN KM 10 KOTA MAKASSAR**
d. Judul : **"HUBUNGAN ANTARA LINGKAR LENGAN DENGAN KEKUATAN GENGAMAN TANGAN DAN KEMAMPUAN WEIGHT-BEARING LENGAN PADA LANJUT USIA DI KAMPUNG PARANG KOTA MAKASSAR".**

Benar yang bersangkutan tersebut di atas telah melakukan Penelitian/Pengumpulan data di wilayah Kelurahan Tamalanrea Jaya pada tanggal 01 Mei 2023 s/d 01 Juni 2023 di Wilayah Kelurahan Tamalanrea Jaya Kecamatan Tamalanrea Kota Makassar.

Demikian Surat Keterangan ini diberikan untuk dipergunakan sebagaimana mestinya.

Makassar, 31 mei 2023

Plt Lurah


ALAM SYAH. S,AB
Pangreh : Penata
NIP. 196710302007011006

Lampiran 5. Hasil Uji SPSS

1. Uji Normalitas Data Saphiro-Wilk

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LLB dextra	.164	42	.006	.906	42	.002
LLB sinistra	.207	42	.000	.889	42	.001
Kekuatan Genggaman dextra	.140	42	.037	.949	42	.058
Kekuatan Genggaman sinistra	.121	42	.129	.927	42	.010
Weight Bearing Lengan dextra	.179	42	.002	.909	42	.003
Weight Bearing Lengan sinistra	.124	42	.105	.943	42	.035

a. Lilliefors Significance Correction

2. Uji Korelasi LILA dengan Kekuatan Genggaman Tangan dan Kemampuan *Weight-Bearing* Lengan

		Correlations							
		LILA dextra	LILA sinistra	LLB dextra	LLB sinistra	Kekuatan Genggaman dextra	Kekuatan Genggaman sinistra	Weight Bearing Lengan dextra	Weight Bearing Lengan sinistra
Spearman's rho	LILA dextra	Correlation Coefficient	1.000	-.152	-.170	-.157	-.188	-.210	.322*
		Sig. (2-tailed)	.	.337	.283	.321	.234	.181	.038
		N	42	42	42	42	42	42	42
LILA sinistra		Correlation Coefficient	-.152	1.000	.566**	.557**	.009	.048	.135
		Sig. (2-tailed)	.337	.	.000	.000	.954	.764	.394
		N	42	42	42	42	42	42	42

3. Uji Korelasi LLB dengan Kekuatan Genggaman Tangan dan Kemampuan *Weight-Bearing* Lengan

		Correlations					
		LLB dextra	LLB sinistra	Kekuatan Genggaman dextra	Kekuatan Genggaman sinistra	Weight Bearing Lengan dextra	Weight Bearing Lengan sinistra
Spearman's rho	LLB dextra	Correlation Coefficient	1.000	.852**	.448**	.414**	.230
		Sig. (2-tailed)	.	.000	.003	.006	.142
		N	42	42	42	42	42
LLB sinistra		Correlation Coefficient	.852**	1.000	.393**	.464**	.183
		Sig. (2-tailed)	.000	.	.010	.002	.246
		N	42	42	42	42	42

Lampiran 6. Dokumentasi Penelitian



Lampiran 7. Draft Artikel

Relationship between Arm Circumference with Grip Strength and Arm Weight-bearing Ability of Elderly in Kampung Parang Kota Makassar

Anggun Indah Lestari¹, Ita Rini², Meutjah Mutmainnah³,

Adi Ahmad Gondo⁴, Dian Amaliah Nawir⁵

^{1,2,3,4,5}Physical Therapy Department, Hasanuddin University

*Corresponding author: Anggun Indah Lestari; Affiliation/ ~~Afiliasi~~; Physical Therapy

~~Departement, Hasanuddin University~~ Email: anggunindahlestari@gmail.com

ABSTRACT

Background: Arm circumference can be divided into Mid-Upper Arm Circumference (MUAC) and Forearm Circumference (FAC) which function for daily activities. MUAC and FAC can be predictors of muscle mass which affect muscle strength of the elderly. As aging, elderly will experience degenerative changes that cause changes from the cellular level to the organs. The changes that occur can allow for decrease in muscle strength starting from simple daily activities such as gripping objects or maintaining balance when ambulation from a sitting position to standing. This study aims to determine the relationship between MUAC and FAC with hand grip strength and arm weight-bearing abilities in the elderly in Kampung Parang Kota Makassar.

Methods: This research is a type of correlational research with a cross sectional design. Sampling in this study used a purposive sampling technique with a total sample of 42 elderly. Data collection was carried out by collecting primary data through MUAC and FAC measuring instruments with a measuring tape and then categorized based on MUAC and FAC standards, measuring hand grip strength with a Camry Hand Dynamometer and then categorized based on the value of the elderly's grip strength, and measuring the weight-bearing ability of the arm with a scale then categorized by Wrist Weight-bearing Test.

Results: The results showed that there was a significant relationship between MUAC and the weight-bearing ability of the right arm ($p=0.038$; $r=0.322$) but not the left arm ($p=0.530$; $r=-0.100$). This shows that the greater the MUAC, the greater the weight-bearing ability of the arms. In addition, there is also a significant relationship between FAC and hand grip strength. The results showed that variations in FAC values would affect strength of the elderly's grip on the right arm ($p=0.003$; $r=0.448$) and left arm ($p=0.002$; $r=0.464$).

Conclusion: MUAC and FAC are good predictor of muscle mass in the elderly. Ambulation in elderly are important to be considered as physical examination.

Key words: Elderly, Mid Upper Arm Circumference (MUAC), Forearm Circumference (FAC), handgrip strength, arm weight-bearing ability

BACKGROUND/LATAR BELAKANG:

It is projected that the elderly population in Indonesia will continue to increase so that it has the potential to become a "second demographic bonus" i.e. the condition of a country or region when a proportion of the elderly population is still productive and contributes to the country (1). This can be seen as a starting point for make a comprehensive effort to create healthy and productive older people. However, it cannot be denied that the elderly are always associated with degenerative as a manifestation of the aging process. One of them is a decrease in muscle strength which is usually measured through Hand Grip Strength Test. Decreased hand grip strength will limit the daily activities of the elderly such as carrying groceries, preparing food, oral hygiene, even ambulation such as from sitting to standing. From several previous studies, it is common to find elderly people who have difficulty ambulating from sitting to standing so they use their arms to support when trying to stand (2,3).

Decreased hand grip strength and arm weight-bearing ability in the elderly can be related to the quality of the muscles produced. One predictor that can describe the quality of the muscles in the upper extremities is the measurement of arm circumference, which consists of the Upper Arm Circumference (MUAC) and the

Forearm Circumference (FAC). MUAC is commonly used to measure nutrition and describe the subcutaneous fat layer (Hu et al., 2021). Malnutrition, both underweight and overweight, is associated with a metabolic response during muscle breakdown, which in turn reduces muscle mass. Researchers made observations in February 2023 in Kampung Parang, Makassar City, South Sulawesi Province, Indonesia. Kampung Parang is one of the working areas of the Tamalauva, Jaya Primary Health Center. The results of the initial observations on the MUAC measurement of 13 elderly showed that 8 of them were included in the underweight category, in the FAC measurement of 13 elderly the values were below normal standards (<20.5 cm) and 9 (69.2%) of the 13 elderly had weak hand grip strength (Primary Data, 2023).

Changes in arm circumference and hand grip strength in the elderly can be predictors of health problems in the elderly such as sarcopenia and limited functional abilities which then affect daily activities. Therefore, researchers are interested in conducting research to determine the relationship between arm circumference and hand grip strength and arm weight-bearing ability in the elderly in Kampung Parang, Kota Makassar, Indonesia.

METHODS/METODE:

a. Study Design and participants

This study used a cross-sectional design which aimed to determine the relationship between arm circumference and hand grip

strength and arm weight-bearing ability in the elderly in Kampung Parang, Kota Makassar. The sample in this study was 42 elderly people with age range from 60 - 78 years. In determining the sample of this study using a purposive sampling

technique by applying the inclusion and exclusion criteria. The inclusion criteria that have been used are the elderly aged 60-78 years and are willing to be respondents. Exclusion criteria that have been used are no history of upper extremity injuries and no history of diseases such as Stroke and Parkinson's.

This study used the Camry Hand Dynamometer as a measuring instrument for hand grip strength with interpretation according to the standard grip strength of the elderly based on age and gender. For the weight-bearing ability of the arm, use scales as a measuring instrument accompanied by an interpretation of the normal values for elderly men of 35-40 kg, while

elderly women are 27-30 kg. Then for arm circumference it is measured using a measuring tape and the interpretation is adjusted to the MUAC and FAC standards.

Before the study began, the sample was first explained the purpose of the study. Then the sample was instructed to sign an informed consent as evidence of being willing to be a sample during the study. This research has received approval from the Research Ethics Commission of the Faculty of Public Health Sciences, Hasanuddin University

b. Data analysis

The normality test was used *the Shapiro-Wilk* test Spearman rho was used to find out relationship between both variables.

RESULTS/HASIL:

Table 1 showed respondents are dominant women than men. The characteristics of respondents by age were more in elderly category (95.2%).

Table 1. Characteristic data of respondents

Characteristics	Total n (%)
Age (years)	
Elderly (60 – 75)	40 (95.2)
Old (75 – 90)	2 (4.8)
Total	42 (100)
Sex	
Male	10 (23.8)
Female	32 (76.2)
Total	42 (100)

Based on Table 2 showed no significant relationship between MUAC and hand grip strength ($p > 0.05$) but MUAC and arm weight-bearing ability showed have significant correlation ($p < 0.05$).

Table 2. Correlation between MUAC with HGS and AWA

Variabel		p	r	r²
Arm Dextra				
MUAC	HGS	0.234	-0.188	3.5%
	AWA	0.038	0.322	10.36%
Arm Sinistra				
MUAC	HGS	0.764	0.048	0.23%
	AWA	0.530	-0.100	1%

HGS - Hand Grip Strength; **Arm Weight-bearing Ability**

Based on [Table 3](#) showed significant difference between FAC and hand grip strength ($p > 0.05$) but FAC and arm weight-bearing ability showed no significant correlation ($p < 0.05$).

Table 3. Correlation between FAC with HGS and AWA

Variabel		p	r	r²
Arm Dextra				
FAC	HGS	0.003	0.448	20.07%
	AWA	0.142	0.230	5.29%
Arm Sinistra				
FAC	HGS	0.002	0.464	21.52%
	AWA	0.625	0.078	0.60%

HGS - Hand Grip Strength; **Arm Weight-bearing Ability**

DISCUSSION/DISKUSI: The findings of this study indicate that MUAC has a relationship with Arm Weight-bearing Ability while FAC has a relationship with Hand Grip Strength in the elderly. Ambulation from sitting to standing in the elderly often requires assistance from non-weight bearings. Such support on the surface of the chair and the waist area also influences the dynamic balance and effort

of the extensor knee. By focusing on the waist and the surface of the chair, it significantly reduces the torque on the knee so that the standing process can be done without losing balance(4). The ability to weight-bearing the upper extremities requires activities that are integrated into Activity Daily Living (ADL) such as pushing the body to get up from a chair or toilet, pushing a door to open or even using

Lampiran 8. *Form Pengukuran yang Digunakan dalam Penelitian*

LEMBAR PERSETUJUAN

Yang bertanda tangan dibawah ini :

Nama/Inisial :

Usia :

Jenis kelamin :

Setelah mendapatkan penjelasan dari peneliti terkait pemeriksaan yang akan diberikan, saya bersedia menjadi responden penelitian yang berjudul “Hubungan Lingkar Lengan dengan Kekuatan Genggaman Tangan dan Kemampuan *Weight-Bearing* Lengan pada Lansia di Kampung Parang Kota Makassar” yang akan dilakukan oleh Anggun Indah Lestari Mahasiswa Program Studi S1 Fisioterapi Fakultas Keperawatan Universitas Hasanuddin.

Demikian lembar persetujuan ini dibuat dengan penuh kesadaran dan tanpa dipaksa dari pihak lain untuk dipergunakan sebagaimana mestinya.

Makassar, Mei 2023

Responden

()

Penanggung Jawab Penelitian

Nama : Anggun Indah Lestari

HP/WA : 085247070339

FORM PENGUKURAN

Nama :

Usia :

Jenis kelamin : L / P

1) Apakah anda pernah mengalami cedera pada lengan (*fraktur, sprain*) dalam 1 tahun terakhir?

.....

2) Apakah anda memiliki riwayat penyakit sebagai berikut:

a. *Parkinson*

b. *Stroke*

.....

3) Ketika beraktivitas, tangan mana yang lebih dominan digunakan? Kanan / Kiri

1. Antropometri

Tinggi badan :

Berat badan :

2. Lingkar Lengan Atas (LILA)

Posisi subjek fleksi *elbow* 90° kemudian ukur jarak dari *processus acromion* dan *processus olecranon* dan beri tanda pada titik tengah.

Hasil (kanan) : _____ cm

Hasil (kiri) : _____ cm

Persentase LILA (%) : _____ x 100% =% (_____)

Kategori:

- *Obesitas* > 120%
- *Overweight* 110 – 120%
- Normal 90 - 110%
- *Underweight* < 90%

3. Lingkar Lengan Bawah (LLB)

Posisi subjek supinasi *elbow* kemudian ukur jarak dari *epicondylus lateral humeri* dan *processus styloideus ulna* dan beri tanda pada titik tengah. Jarak tubuh dengan lengan 10 cm.

Hasil (kanan) : _____ cm (_____)

Hasil (kiri) : _____ cm (_____)

- Kategori:
- Laki-laki 24,2 cm
 - Perempuan 20,5 cm

4. Kekuatan Genggaman Tangan

Posisi subjek duduk dengan fleksi *elbow* 90° dan *wrist* netral kemudian hand dynamometer diletakkan pada telapak tangan dan subjek menggenggam selama 5 detik.

Hasil (kanan) : 1) _____ kg
2) _____ kg

Hasil (kiri) : 1) _____ kg
2) _____ kg

Kategori:

- Laki-laki

Usia	Lemah	Normal	Kuat
60-64	<32.2	30.2-48.0	>48.0
65-69	<28.2	28.2-44.0	>44.0
70-99	<21.3	21.3-35.1	>35.1

- Perempuan

Usia	Lemah	Normal	Kuat
60-64	<17.2	17.2-31.0	>31.0
65-69	<15.4	15.4-27.2	>27.2
70-99	<14.7	14.7-24.5	>24.5

5. Kemampuan *Weight-Bearing* Lengan

Posisi subjek berlutut dengan *elbow* full ekstensi dan *wrist* hiperestensi di atas timbangan. Jari-jari tangan melebar dengan jari tengah di arah jarum jam 12. Subjek menumpu pada timbangan dengan berat badan selama 10 detik sampai jarum di timbangan stabil di angka tertentu.

Hasil (kanan) : 1) _____ kg
2) _____ kg

Hasil (kiri) : 1) _____ kg
2) _____ kg

- Kategori:
- Laki-laki 35 – 40 kg
 - Perempuan 27 – 30 kg

Lampiran 9. Biodata Penulis

Nama : Anggun Indah Lestari
Tempat/Tanggal Lahir : Kutai Timur, 23 November 2000
Jenis Kelamin : Perempuan
Email : anggunindahlestari@gmail.com
Alamat Domisili : Jalan Sahabat 3, Kec.Tamalanrea,
Kota Makassar



Riwayat Pendidikan

Program Studi S1 Fisioterapi Universitas Hasanuddin	Tahun 2019 - sekarang
SMAN 10 Samarinda	Tahun 2016 - 2019
SMPN 1 Bengalon	Tahun 2013 - 2016
SDN 012 Bengalon	Tahun 2007 – 2013