

DAFTAR PUSTAKA

- Anhar, A. A. (2020). Pengaruh Teknik SNAG Mulligan Terhadap Aktivitas Fungsional Leher Pada Penjahit Di Akina Konveksi Kota Malang [Skripsi Sarjana (S1)]. In *Skripsi Sarjana (S1)*, Universitas Muhammadiyah Malang. Universitas Muhammadiyah Malang.
- Ashok, K., Kumar Purushothaman, V., Muniandy, Y., Purushothaman, V. K., & Program, P. (2020). *Prevalence of Forward Head Posture in Electronic Gamers and Associated Factors*. In *Int J Aging Health Mov (Vol. 2, Issue 2)*.
- Bonny, S. (2020). Perbedaan Efek Penambahan Latihan Koreksi Postural Dalam Meningkatkan Mobilitas Leher Pada Kasus Postur Kepala Depan Akibat Penggunaan Smartphone [Skripsi, Universitas Esa Unggul]. In *Skripsi, Universitas Esa Unggul*.
- Chiu, T. T., Lam, T. H., & Hedley, A. J. (2005). *Correlation among physical impairments, pain, disability, and patient satisfaction in patients with chronic neck pain*. *Archives of Physical Medicine and Rehabilitation*, 86(3), 534–540. <https://doi.org/10.1016/j.apmr.2004.02.030>
- Chung, Y., Lee, S., & Lee, Y. (2017). *Effect of changes in head postures during use of laptops on muscle activity of the neck and trunk*. *Phys Ther Rehabil Sci*, 2017(1), 33–38. https://doi.org/10.14474/ptrs.2017.6.1.33&domain=pdf&date_stamp=2017-3-25
- Fathollahnejad, K., Letafatkar, A., & Hadadnezhad, M. (2019). *The effect of manual therapy and stabilizing exercises on forward head and rounded shoulder postures: A six-week intervention with a one-month follow-up study*. *BMC Musculoskeletal Disorders*, 20(1). <https://doi.org/10.1186/s12891-019-2438-y>
- Fruth, S. J. (2018). *Fundamentals of the physical therapy examination : patient interview and tests & measures*.
- Habib Abbasi, A., Aslam, M., Ashraf, T., & Nawaz Malik, A. (2016). *Evaluation of the Forward Head Posture, its association with Neck Pain & Quality of life of Female DPT Students*. *Journal Riphah College of Rehabilitation Sciences*, 4(2), 59–64. <http://www.scopemed.org/?jid=130>
- Hansraj, K. K. (2014). *Assessment of Stresses in the Cervical Spine Caused by Posture and Position of the Head*. *New York Spine Surgery & Rehabilitation Medicine*. <https://doi.org/10.1016/j.pain.2014>
- Haryo, G., Pangestu, B., Hendra, M., Nugraha, S., Ayu, P., & Saraswati, S. (2021). Faktor Risiko Terjadinya *Forward Head Posture Risk Factors of*

Forward Head Posture. Jurnal Fisioterapi Dan Rehabilitasi, 5(2).

- Hasanuddin, U. (2016). Pengukuran ROM Ekstremitas Superior Dasar Teori. <https://med.unhas.ac.id/fisioterapi/wpcontent/uploads/2016/12/Pengukuran-ROM.pdf>
- Hodgins, J. L., Rubenstein, W., Kovacevic, D., Padaki, A., Jobin, C. M., & Ahmad, C. S. (2017). *Pectoralis Minor Contracture in Throwing Shoulders of Asymptomatic Adolescent Baseball Players. Orthopaedic Journal of Sports Medicine*, 5(9). <https://doi.org/10.1177/2325967117728041>
- In Jung, S., Kyung Lee, na, Woo Kang, K., KIm, K., & youn Lee, D. (2016). *The effect of smartphone usage time on posture and respiratory function. The Journal of Physical Therapy Science*.
- Indriyani, K. N. (2015). Pengaruh *Myofacial Release* terhadap Pengurangan Nyeri pada *Myofacial Trigger Points Syndrome* pada Pembatik di Desa Jarum Bayat. In *Naskah Publikasi*.
- Kaandeepan, M. M., Parikh, T. K., & Tapan S. (2011). *Forward Head Posture Angle in Healty Older Females- a Cross Sectional Study. International Journal of Current Research and Review* , 3(8).
- Kelly, N., Mousset, M., Althubaiti, A., Agarwal, R., Onwuka, A., & Chiang, T. (2022). *Using the Craniovertebral Angle to Quantify Intraoperative Ergonomic Risk. Otolaryngology - Head and Neck Surgery (United States)*, 167(4), 664–668. <https://doi.org/10.1177/01945998211068726>
- Khairunnisa. (2020). Pengaruh Relaksasi Otot Progresif terhadap *Range of Motion* Leher pada Kasus *Myofascial Pain Syndrome* Otot *Upper Trapezius* pada Penjahit. In *Skripsi Sarjana (S1)*, Universitas Muhammadiyah Malang.
- Kim, D. H., Kim, C. J., & Son, S. M. (2018). *Neck pain in adults with forward head posture: Effects of craniovertebral angle and cervical range of motion. Osong Public Health and Research Perspectives*, 9(6), 309–313. <https://doi.org/10.24171/j.phrp.2018.9.6.04>
- Kim, E. K., & Kim, J. S. (2016). *Correlation between rounded shoulder posture, neck disability indices, and degree of forward head posture. The Journal of Physical Therapy Science*.
- Ko, C. H., Cynn, H. S., Lee, J. H., Yoon, T. L., & Choi, S. A. (2016). *Figure-8 strap application: Immediate alteration of pectoralis minor length and scapular alignment during arm-lifting exercise in participants with forward shoulder posture. Journal of Sport Rehabilitation*, 25(3), 273–279. <https://doi.org/10.1123/jsr.2015-0002>

- Komati, M. A., Korkie, F. E., & Becker, P. (2020). *Pectoralis minor length measurements in three different scapula positions*. *South African Journal of Physiotherapy*, 76(1), 1–6. <https://doi.org/10.4102/sajp.v76i1.1487>
- Lee, I.-G., Im, S.-C., & Kim, K. (2020). *Effects of pectoralis minor length on strength improvement and pain reduction during scapular reposition test*. *Journal of Physical Therapy Science*, 32(1), 42–47.
- Lewis, J. S., & Valentine, R. E. (2007). *The pectoralis minor length test: A study of the intra-rater reliability and diagnostic accuracy in subjects with and without shoulder symptoms*. *BMC Musculoskeletal Disorders*, 8. <https://doi.org/10.1186/1471-2474-8-64>
- Lopez, A. J., Scheer, J. K., Leibl, K. E., Smith, Z. A., Dlouhy, B. J., & Dahdaleh, N. S. (2015). *Anatomy and biomechanics of the craniovertebral junction*. *Neurosurgical Focus*, 38(4), 1–8. <https://doi.org/10.3171/2015.1.FOCUS14807>
- Nejati, P., Lotfian, S., Moezy, A., Moezy, A., & Nejati, M. (2014). *The relationship of forward head posture and rounded shoulders with neck pain in Iranian office workers*. *Medical journal of the Islamic Republic of Iran*, 28, 26.
- Meisingset, I., Stensdotter, A. K., Woodhouse, A., & Vasseljen, O. (2016). *Neck motion, motor control, pain and disability: A longitudinal study of associations in neck pain patients in physiotherapy treatment*. *Manual Therapy*, 22, 94–100. <https://doi.org/10.1016/j.math.2015.10.013>
- Morais, N., & Cruz, J. (2016). *The pectoralis minor muscle and shoulder movement-related impairments and pain: Rationale, assessment and management*. In *Physical Therapy in Sport* (Vol. 17, pp. 1–13). Churchill Livingstone. <https://doi.org/10.1016/j.ptsp.2015.10.003>
- Naik, R. V., & Ingole, P. M. (2018). *Modified Universal Goniometer for Objective Assessment of Forward Head Posture in Clinical Settings*. *MGM Journal of Medical Sciences*, 5(3), 121–124. <https://doi.org/10.5005/jp-journals-10036-1199>
- Nemmers, T. M., Miller, J. W., & Hartman, M. D. (2009). *Variability of the Forward head posture in healthy Community-dwelling Older Women*. In *Journal of Geriatric Physical Therapy* (Vol. 32).
- Nitin Worlikar, A., & Rajesh Shah, M. (2019). *Incidence of Forward Head Posture and Associated Problems in Desktop Users*. *International Journal of Health Sciences & Research (Www.Ijhsr.Org)*, 9(2), 96. www.ijhsr.org
- Nopriadi, N., Pratiwi, Y., Leonita, E., & Tresnanengsih, E. (2019). Faktor yang

Berhubungan dengan Kejadian *Computer Vision Syndrome* pada Karyawan Bank. *Media Kesehatan Masyarakat Indonesia*, 15(2), 111. <https://doi.org/10.30597/mkmi.v15i2.5753>

Nurul, K. M., & A'isyah, U. (2021). Narrative Review : Efektifitas McKenzie Exercise Terhadap Forward Head Posture Pada Mahasiswa Pengguna Gadget Program Studi Fisioterapi S1 Fakultas Ilmu Kesehatan Universitas 'Aisyiyah Yogyakarta 2021. *Naskah Publikasi*.

Oh, H.-J., & Song, G.-B. (2016). *Effects of neurofeedback training on the cervical movement of adults with forward head posture. The Journal of Physical Therapy Science*.

Ohmure, H., Miyawaki, S., Nagata, J., Ikeda, K., Yamasaki, K., & Al-Kalaly, A. (2008). *Influence of forward head posture on condylar position. Journal of Oral Rehabilitation*, 35(11), 795–800. <https://doi.org/10.1111/j.1365-2842.2007.01834.x>

Perry, C. (2022). *Pectoralis minor muscle*. KENHUB.

Phadke, A., Bedekar, N., Shyam, A., & Sancheti, P. (2016). *Effect of muscle energy technique and static stretching on pain and functional disability in patients with mechanical neck pain: A randomized controlled trial. Hong Kong Physiotherapy Journal*, 35, 5–11. <https://doi.org/10.1016/j.hkpj.2015.12.002>

Putri, A. K., Adnindya, Msy. R., & Septadina. (2019). Hubungan Sudut *Craniovertebral* (CV) Dan Nyeri Servikal Pada Pengerajin Tenun Di Kota Palembang [Skripsi]. In *Skripsi, Universitas Sriwijaya*. Universitas Sriwijaya.

Qomaruddin, H. A. (2020). Hubungan Forward Head Posture Terhadap Risiko Ketegangan Kepala Pada Pengguna Smartphone. [Skripsi Sarjana (S1)]. In *Skripsi Sarjana (S1), Universitas Muhammadiyah Malang*. Universitas Muhammadiyah Malang.

Riphah International University. (2020). *Strengthening and Stretching Exercise to Improve Forward Head Posture and Rounded Shoulders*. <https://clinicaltrials.gov/ct2/show/NCT04216862>.

Roshani, S., Yousefi, M.-R., Sokhtezari, Z., & Khalil Khodaparast, M. (2019). *The Effect of a Corrective Exercise Program on Upper Crossed Syndrome in a Blind Person Case Report. JRSR*, 6, 148–152. <https://doi.org/10.30476/jrsr.2019.83417.1044>

Saini, S. (2022). *Effect of passive pectoralis minor stretching on scapular kinematics in scapular dyskinesia. Clinical Practice*, 19(3). <https://doi.org/10.4172/clinical-practice.100480>

- Samir, S. M., Elshinnawy, A. M., Abd Elrazik, R. K., Hosny, H., Battaesha, M., el Sayed, M., Ali, A., & Gazya, A. A. (2019). *The long-term effect of smartphone overuse on Cervical Posture and range of motion in asymptomatic sedentary adults. Journal of Advanced Pharmacy Education & Research*, 9(4). www.japer.in
- Sarig Bahat, H., Levy, A., & Yona, T. (2022). *The association between forward head posture and non-specific neck pain: A cross-sectional study. Physiotherapy Theory and Practice*, 1–10.
- Shaghayegh fard, B., Ahmadi, A., Maroufi, N., & Sarrafzadeh, J. (2016). *Evaluation of forward head posture in sitting and standing positions. European Spine Journal*, 25(11), 3577–3582. <https://doi.org/10.1007/s00586-015-4254-x>
- Silva, A. G., & Johnson, M. I. (2013). *Does forward head posture affect postural control in human healthy volunteers? Gait and Posture*, 38(2), 352–353. <https://doi.org/10.1016/j.gaitpost.2012.11.014>
- Singla, D., & Veqar, Z. (2017). *Association Between Forward Head, Rounded Shoulders, and Increased Thoracic Kyphosis: A Review of the Literature. Journal of Chiropractic Medicine*, 16(3), 220–229. <https://doi.org/10.1016/j.jcm.2017.03.004>
- Sohn, J. H., Choi, H. C., Lee, S. M., & Jun, A. Y. (2010). *Differences in cervical musculoskeletal impairment between episodic and chronic tension-type headache. Cephalalgia*, 30(12), 1514–1523. <https://doi.org/10.1177/0333102410375724>
- Steiner, L. A., Cooper, Nadia, Laura, Kahl, Petrolini, Andrea, Tuesca, Angela, Windholz, Tamara 1, Tremback-Ball, A, Calvey, Kaeti, Elison, Tracy, Sterner, Kamela, Wenger, Nancy 4. (2006). *Institutions (All): 1. Program in Physical Therapy , MGH Institute of Health Professions. In Journal of Women's Health Physical Therapy (Vol. 30, Issue 2)*.
- Tasmeeer, R., Asad Ullah Arslan, S., Ahmad, A., & Amjad, F. (2022). *Effect Of Forward Head Posture with Neck Disability and Quality of Life in Freelancer. Pakistan BioMedical Journal*, 288–292. <https://doi.org/10.54393/pbmj.v5i5.472>
- The Craniovertebral Region.* (2016). Musculoskeletal Key.
- Trisnowiyanto, B. (2016). *Beda Pengaruh Intervensi Peregangan Dan Mobilisasi Sendi Terhadap Perbaikan Keterbatasan Lingkup Gerak Sendi. Jurnal Kesehatan*. <https://doi.org/http://dx.doi.org/10.26630/jk.v7i2.186>

- Visocchi, M. (2019). Why the craniovertebral junction? In *Acta Neurochirurgica, Supplementum* (Vol. 125, pp. 3–8). Springer-Verlag Wien. https://doi.org/10.1007/978-3-319-62515-7_1
- Wibisono I.S., & Azam, M. (2022). *The Effect Of Neck Pain On Craniovertebral Angle Due To The Use Of Smartphone As A Learning Media For Physiotherapy Students In Widya Husada University Semarang. Jurnal Keperawatan Dan Fisioterapi (JKF)*, 4(2), 284–289. <https://doi.org/10.35451/jkf.v4i2.1089>
- Yusuf, H. Y. (2019). Hubungan Lama Duduk, *Forward Head Posture* Dan IMT Terhadap Kejadian *Forward Shoulder Posture* Pada Pegawai Kantor Di PT PLN (PERSERO) Transmisi Jawa Bagian Barat. *Doctoral Dissertation, Universitas Pembangunan Nasional Veteran Jakarta*.

LAMPIRAN

Lampiran 1. Surat Izin Penelitian Tingkat Provinsi



PEMERINTAH PROVINSI SULAWESI SELATAN
DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU SATU PINTU

Jl. Bougenville No.5 Telp. (0411) 441077 Fax. (0411) 448936
Website : <http://simap-new.sulselprov.go.id> Email : ptsp@sulselprov.go.id
Makassar 90231

Nomor	: 15914/S.01/PTSP/2023	Kepada Yth.
Lampiran	: -	Walikota Makassar
Perihal	: <u>Izin penelitian</u>	

di-
Tempat

Berdasarkan surat Dekan Fak. Keperawatan Univ. Hasanuddin Makassar Nomor : 1265/UN4.18.1/PT.01.04/2023 tanggal 11 April 2023 perihal tersebut diatas, mahasiswa/peneliti dibawah ini:

N a m a	: FAHIRA AZZAHRA NOORAINI
Nomor Pokok	: R021191036
Program Studi	: Fisioterapi
Pekerjaan/Lembaga	: Mahasiswa (S1)
Alamat	: Jl. P. Kemerdekaan Km, 10 Makassar



Bermaksud untuk melakukan penelitian di daerah/kantor saudara dalam rangka menyusun SKRIPSI, dengan judul :

" HUBUNGAN ANTARA CRANIOVERTEBRAL ANGLE DENGAN RANGE OF MOTION REGIO CERVICAL DAN PANJANG MUSCULUS PECTORALIS MINOR PADA PEGAWAI DI DINAS PERDAGANGAN KOTA MAKASSAR "

Yang akan dilaksanakan dari : Tgl. **15 Mei s/d 15 Juni 2023**

Sehubungan dengan hal tersebut diatas, pada prinsipnya kami **menyetujui** kegiatan dimaksud dengan ketentuan yang tertera di belakang surat izin penelitian.

Demikian Surat Keterangan ini diberikan agar dipergunakan sebagaimana mestinya.

Diterbitkan di Makassar
Pada Tanggal 27 April 2023


A.n. GUBERNUR SULAWESI SELATAN
KEPALA DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU
SATU PINTU PROVINSI SULAWESI SELATAN



Ir. H. SULKAF S LATIEF, M.M.
Pangkat : PEMBINA UTAMA MADYA
Nip : 19630424 198903 1 010

Tembusan Yth
1. Dekan Fak. Keperawatan Univ. Hasanuddin Makassar di Makassar;
2. *Pertinggal.*

Lampiran 2. Surat Izin Penelitian Tingkat Kabupaten



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

SURAT KETERANGAN PENELITIAN
Nomor : 070/255/SKP/DPMPTSP/V/2023

Dasar : 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 **15914/S.01/PTSP/2023** Tanggal **27 April 2023**;
 5. Rekomendasi Teknis Badan Kesatuan Bangsa dan Politik Kota Makassar Nomor **070/262-II/BKBP/V/2023** Tanggal **12 Mei 2023**.


DENGAN INI MENERANGKAN BAHWA :


Nama	: FAHIRA AZZAHRA NOORAINI
NIM / Jurusan	: R021191036 / Fisioterapi
Pekerjaan	: Mahasiswa (S1) / UNHAS
Alamat	: Jl. P. Kemerdekaan Km. 10, Makassar
Lokasi Penelitian	: Dinas Perdagangan Kota Makassar
Waktu Penelitian	: 15 Mei s/d 15 Juni 2023
Tujuan	: Skripsi
Judul Penelitian	: "HUBUNGAN ANTARA CRANIOVERTEBRAL ANGLE DENGAN RANGE OF MOTION REGIO CERVICAL DAN PANJANG MUSCULUS PECTORALIS MINOR PADA PEGAWAI DI DINAS PERDAGANGAN KOTA MAKASSAR"


Dalam melakukan kegiatan agar yang bersangkutan memenuhi ketentuan sebagai berikut :

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 bidangpoldagrikesbangpoldmks@gmail.com.
4. Surat Keterangan Penelitian ini dicabut kembali apabila pemegangnya tidak menaati ketentuan tersebut diatas.

Makassar, 15 Mei 2023








Ditandatangani secara elektronik oleh
KEPALA DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU SATU PINTU KOTA MAKASSAR
A. ZULKIFLY, S.STP., M.Si.

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://tte.kominfo.go.id/verifyPDF>



Lampiran 3. Surat Keterangan Lolos Kaji Etik



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN
RISET, DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN
FAKULTAS KESEHATAN MASYARAKAT

Jln. Perintis Kemerdekaan Km. 10 Makassar 90245, Telp. (0411) 585658,
E-mail : fkunhas@gmail.com, website: <https://fkunhas.ac.id/>

REKOMENDASI PERSETUJUAN ETIK

Nomor : 3548/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	4523091093	No. Sponsor Protokol	
Peneliti Utama	Fahira Azzahra Nooraini	Sponsor	Pribadi
Judul Peneliti	Hubungan antara <i>Craniovertebral Angle</i> dengan <i>Range of Motion Regio Cervical</i> dan Panjang <i>Musculus Pectoralis Minor</i> pada Pegawai di Dinas Perdagangan Kota Makassar.		
No. Versi Protokol	1	Tanggal Versi	04 Mei 2023
No. Versi PSP	1	Tanggal Versi	04 Mei 2023
Tempat Penelitian	Kantor Dinas Perdagangan, 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. Melaporakan penyimpangan dari protocol yang disetujui (protocol deviation/violation)
6. Mematuhi semua peraturan yang ditentukan



Lampiran 4. Surat Telah Menyelesaikan Penelitian



**PEMERINTAH KOTA MAKASSAR
DINAS PERDAGANGAN**

JL. Rappocini Raya No.219 Kode Pos: 90222 Telp. (0411) 453325
Homepage: disdag.makassarkota.go.id Email: disdagmakassar@gmail.com

SURAT KETERANGAN

Nomor : 800.2 / 111 /Disdag/V/2023

Berdasarkan surat dari Universitas Hasanuddin Fakultas Keperawatan Nomor : 15914/S.01/PTSP/2023, tanggal 11 April 2023 Perihal Surat Izin Penelitian. Maka dengan ini menerangkan bahwa :

Nama : **FAHIRA AZZAHRA NOORAINI**
NIM / Jurusan : R021191036 / Fisioterapi
Universitas : MAHASISWA (S1) UNHAS
Judul : "Hubungan Antara Craniovertebral Angle Dengan Range Of Motion Regio Cervical dan Panjang Musculus Pectoralis Minor Pada Pegawai di Dinas Perdagangan Kota Makassar."

Telah melakukan penelitian / pendataan Pada Dinas Perdagangan Kota Makassar, untuk **Penyusunan Skripsi**.

Demikian surat keterangan ini diberikan untuk dipergunakan sebagaimana mestinya.

Makassar, 17 Mei 2023



AHMAD, S.S.os
Pangkat : Pembina Tk. I
Nip. 19080825 198803 1 004

Lampiran 5. Hasil Uji SPSS

1. Karakteristik Sampel Penelitian

		Usia			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	26-35 tahun	5	11.1	11.9	11.9
	36-45 tahun	17	37.8	40.5	52.4
	46-55 tahun	15	33.3	35.7	88.1
	56-65 tahun	5	11.1	11.9	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		
Total		45	100.0		

		Jenis Kelamin			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Laki-Laki	30	66.7	71.4	71.4
	Perempuan	12	26.7	28.6	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		
Total		45	100.0		

		Lama Penggunaan Komputer			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	2-4 Jam (Sedang)	19	42.2	45.2	45.2
	>4 Jam (Berat)	23	51.1	54.8	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		
Total		45	100.0		

2. Uji Normalitas

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Usia	.123	42	.114	.948	42	.054
Lama Penggunaan Komputer	.237	42	.000	.847	42	.000
Nilai CVA	.254	42	.000	.852	42	.000

ROM Fleksi	.227	42	.000	.893	42	.001
ROM Ekstensi	.227	42	.000	.838	42	.000
ROM Lateral Fleksi Dextra	.312	42	.000	.758	42	.000
ROM Lateral Fleksi Sinistra	.298	42	.000	.769	42	.000
ROM Rotasi Dextra	.216	42	.000	.891	42	.001
ROM Rotasi Sinistra	.241	42	.000	.877	42	.000
Table to Acromion Test Dextra	.258	42	.000	.849	42	.000
Table to Acromion Test Sinistra	.280	42	.000	.845	42	.000

a. Lilliefors Significance Correction

3. Distribusi Variabel *Craniovertebral Angle (CVA)*

Craniovertebral Angle (CVA)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	FHP Berat	6	13.3	14.3	14.3
	FHP Ringan	36	80.0	85.7	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		
Total		45	100.0		

Correlations

			Usia	Lama Penggunaan Komputer	Kode Jenis Kelamin	Nilai CVA
Spearman's rho	Usia	Correlation Coefficient	1.000	.284	-.172	-.574**
		Sig. (2-tailed)	.	.068	.276	.000
		N	42	42	42	42
	Lama Penggunaan Komputer	Correlation Coefficient	.284	1.000	.027	-.728**
		Sig. (2-tailed)	.068	.	.864	.000
		N	42	42	42	42
	Kode Jenis Kelamin	Correlation Coefficient	-.172	.027	1.000	-.039
		Sig. (2-tailed)	.276	.864	.	.806
		N	42	42	42	42
Nilai CVA	Correlation Coefficient	-.574**	-.728**	-.039	1.000	
	Sig. (2-tailed)	.000	.000	.806	.	
	N	42	42	42	42	

** Correlation is significant at the 0.01 level (2-tailed).

4. Distribusi Variabel ROM Regio Cervical

ROM Fleksi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	14	31.1	33.3	33.3
	Abnormal	28	62.2	66.7	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		
Total		45	100.0		

ROM Ekstensi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	7	15.6	16.7	16.7
	Abnormal	35	77.8	83.3	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		
Total		45	100.0		

Lateral Fleksi Dextra

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Abnormal	42	93.3	100.0	100.0
Missing	System	3	6.7		
Total		45	100.0		

ROM Lateral Fleksi Sinistra

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Abnormal	42	93.3	100.0	100.0
Missing	System	3	6.7		
Total		45	100.0		

ROM Rotasi Dextra

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	6	13.3	14.3	14.3
	Abnormal	36	80.0	85.7	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		

Total	45	100.0		
-------	----	-------	--	--

ROM Rotasi Sinistra

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	7	15.6	16.7	16.7
	Abnormal	35	77.8	83.3	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		
Total		45	100.0		

5. Distribusi ROM Regio *Cervical* berdasarkan *Craniovertebral Angle*

Kode Nilai CVA * Kode ROM Fleksi Crosstabulation

		Kode ROM Fleksi		Total	
		Normal	Abnormal		
Kode Nilai CVA	FHP Berat	Count	0	6	6
		% within Kode Nilai CVA	0.0%	100.0%	100.0%
		% within Kode ROM Fleksi	0.0%	21.4%	14.3%
		% of Total	0.0%	14.3%	14.3%
	FHP Ringan	Count	14	22	36
		% within Kode Nilai CVA	38.9%	61.1%	100.0%
		% within Kode ROM Fleksi	100.0%	78.6%	85.7%
		% of Total	33.3%	52.4%	85.7%
Total	Count	14	28	42	
	% within Kode Nilai CVA	33.3%	66.7%	100.0%	
	% within Kode ROM Fleksi	100.0%	100.0%	100.0%	
	% of Total	33.3%	66.7%	100.0%	

Kode Nilai CVA * Kode ROM Ekstensi Crosstabulation

		Kode ROM Ekstensi		Total	
		Normal	Abnormal		
Kode Nilai CVA	FHP Berat	Count	0	6	6
		% within Kode Nilai CVA	0.0%	100.0%	100.0%
		% within Kode ROM Ekstensi	0.0%	17.1%	14.3%
		% of Total	0.0%	14.3%	14.3%
	FHP Ringan	Count	7	29	36
		% within Kode Nilai CVA	19.4%	80.6%	100.0%

	% within Kode ROM Ekstensi	100.0%	82.9%	85.7%
	% of Total	16.7%	69.0%	85.7%
Total	Count	7	35	42
	% within Kode Nilai CVA	16.7%	83.3%	100.0%
	% within Kode ROM Ekstensi	100.0%	100.0%	100.0%
	% of Total	16.7%	83.3%	100.0%

Kode Nilai CVA * Kode Lateral Fleksi Dextra Crosstabulation

		Kode Lateral Fleksi Dextra		
		Abnormal	Total	
Kode Nilai CVA	FHP Berat	Count	6	6
		% within Kode Nilai CVA	100.0%	100.0%
		% within Kode Lateral Fleksi Dextra	14.3%	14.3%
		% of Total	14.3%	14.3%
	FHP Ringan	Count	36	36
		% within Kode Nilai CVA	100.0%	100.0%
		% within Kode Lateral Fleksi Dextra	85.7%	85.7%
		% of Total	85.7%	85.7%
Total	Count	42	42	
	% within Kode Nilai CVA	100.0%	100.0%	
	% within Kode Lateral Fleksi Dextra	100.0%	100.0%	
	% of Total	100.0%	100.0%	

Kode Nilai CVA * Kode ROM Lateral Fleksi Sinistra Crosstabulation

		Kode ROM Lateral Fleksi Sinistra		
		Abnormal	Total	
Kode Nilai CVA	FHP Berat	Count	6	6
		% within Kode Nilai CVA	100.0%	100.0%
		% within Kode ROM Lateral Fleksi Sinistra	14.3%	14.3%

		% of Total	14.3%	14.3%
	FHP Ringan	Count	36	36
		% within Kode Nilai CVA	100.0%	100.0%
		% within Kode ROM Lateral Fleksi Sinistra	85.7%	85.7%
		% of Total	85.7%	85.7%
Total		Count	42	42
		% within Kode Nilai CVA	100.0%	100.0%
		% within Kode ROM Lateral Fleksi Sinistra	100.0%	100.0%
		% of Total	100.0%	100.0%

Kode Nilai CVA * Kode ROM Rotasi Dextra Crosstabulation

			Kode ROM Rotasi Dextra		Total
			Normal	Abnormal	
Kode Nilai CVA	FHP Berat	Count	0	6	6
		% within Kode Nilai CVA	0.0%	100.0%	100.0%
		% within Kode ROM Rotasi Dextra	0.0%	16.7%	14.3%
		% of Total	0.0%	14.3%	14.3%
	FHP Ringan	Count	6	30	36
		% within Kode Nilai CVA	16.7%	83.3%	100.0%
		% within Kode ROM Rotasi Dextra	100.0%	83.3%	85.7%
		% of Total	14.3%	71.4%	85.7%
Total		Count	6	36	42
		% within Kode Nilai CVA	14.3%	85.7%	100.0%
		% within Kode ROM Rotasi Dextra	100.0%	100.0%	100.0%
		% of Total	14.3%	85.7%	100.0%

Kode Nilai CVA * Kode ROM Rotasi Sinistra Crosstabulation

			Kode ROM Rotasi Sinistra		Total
			Normal	Abnormal	
Kode Nilai CVA	FHP Berat	Count	0	6	6
		% within Kode Nilai CVA	0.0%	100.0%	100.0%

		% within Kode ROM Rotasi Sinistra	0.0%	17.1%	14.3%
		% of Total	0.0%	14.3%	14.3%
	FHP Ringan	Count	7	29	36
		% within Kode Nilai CVA	19.4%	80.6%	100.0%
		% within Kode ROM Rotasi Sinistra	100.0%	82.9%	85.7%
		% of Total	16.7%	69.0%	85.7%
Total		Count	7	35	42
		% within Kode Nilai CVA	16.7%	83.3%	100.0%
		% within Kode ROM Rotasi Sinistra	100.0%	100.0%	100.0%
		% of Total	16.7%	83.3%	100.0%

6. Distribusi Acromion to Table Test

Kode Table to Acromion Test Dextra

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	2	4.4	4.8	4.8
	Abnormal	40	88.9	95.2	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		
Total		45	100.0		

Kode Table to Acromion Test Sinistra

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	4	8.9	9.5	9.5
	Abnormal	38	84.4	90.5	100.0
	Total	42	93.3	100.0	
Missing	System	3	6.7		
Total		45	100.0		

7. Distribusi Acromion to Table berdasarkan Craniovertebral Angle

Kode Nilai CVA * Kode Table to Acromion Test Dextra Crosstabulation

			Kode Table to Acromion Test Dextra		Total
			Normal	Abnormal	
Kode Nilai CVA	FHP Berat	Count	0	6	6
		% within Kode Nilai CVA	0.0%	100.0%	100.0%
		% within Kode Table to Acromion Test Dextra	0.0%	15.0%	14.3%
		% of Total	0.0%	14.3%	14.3%
	FHP Ringan	Count	2	34	36
		% within Kode Nilai CVA	5.6%	94.4%	100.0%
		% within Kode Table to Acromion Test Dextra	100.0%	85.0%	85.7%
		% of Total	4.8%	81.0%	85.7%
	Total	Count	2	40	42
		% within Kode Nilai CVA	4.8%	95.2%	100.0%
		% within Kode Table to Acromion Test Dextra	100.0%	100.0%	100.0%
		% of Total	4.8%	95.2%	100.0%

Kode Nilai CVA * Kode Table to Acromion Test Dextra Crosstabulation

			Kode Table to Acromion Test Dextra		Total
			Normal	Abnormal	
Kode Nilai CVA	FHP Berat	Count	0	6	6
		% within Kode Nilai CVA	0.0%	100.0%	100.0%
		% within Kode Table to Acromion Test Dextra	0.0%	15.0%	14.3%
		% of Total	0.0%	14.3%	14.3%
	FHP Ringan	Count	2	34	36
		% within Kode Nilai CVA	5.6%	94.4%	100.0%
		% within Kode Table to Acromion Test Dextra	100.0%	85.0%	85.7%
		% of Total	4.8%	81.0%	85.7%
	Total	Count	2	40	42
		% within Kode Nilai CVA	4.8%	95.2%	100.0%
		% within Kode Table to Acromion Test Dextra	100.0%	100.0%	100.0%
		% of Total	4.8%	95.2%	100.0%

8. Hasil Uji Korelasi

		Correlations									
			Nilai CVA	ROM Fleksi	ROM Ekstensi	ROM Lateral Fleksi Dextra	ROM Lateral Fleksi Sinistra	ROM Rotasi Dextra	ROM Rotasi Sinistra	Table to Acromion Test Dextra	Table to Acromion Test Sinistra
Spearman's rho	Nilai CVA	Correlation Coefficient	1.000	.909**	.812**	.929**	.863**	.755**	.742**	-.947**	-.881**
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000	.000
		N	42	42	42	42	42	42	42	42	42
ROM Fleksi		Correlation Coefficient	.909**	1.000	.806**	.859**	.806**	.729**	.700**	-.910**	-.862**
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000
		N	42	42	42	42	42	42	42	42	42
ROM Ekstensi		Correlation Coefficient	.812**	.806**	1.000	.806**	.807**	.726**	.718**	-.832**	-.776**
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000	.000
		N	42	42	42	42	42	42	42	42	42
ROM Lateral Fleksi Dextra		Correlation Coefficient	.929**	.859**	.806**	1.000	.881**	.737**	.707**	-.913**	-.864**
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000	.000
		N	42	42	42	42	42	42	42	42	42
ROM Lateral Fleksi Sinistra		Correlation Coefficient	.863**	.806**	.807**	.881**	1.000	.703**	.656**	-.870**	-.837**
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000	.000
		N	42	42	42	42	42	42	42	42	42
ROM Rotasi Dextra		Correlation Coefficient	.755**	.729**	.726**	.737**	.703**	1.000	.816**	-.748**	-.643**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000
		N	42	42	42	42	42	42	42	42	42
ROM Rotasi Sinistra		Correlation Coefficient	.742**	.700**	.718**	.707**	.656**	.816**	1.000	-.700**	-.584**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000
		N	42	42	42	42	42	42	42	42	42
Table to Acromion Test Dextra		Correlation Coefficient	-.947**	-.910**	-.832**	-.913**	-.870**	-.748**	-.700**	1.000	.919**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	42	42	42	42	42	42	42	42	42
Table to Acromion Test Sinistra		Correlation Coefficient	-.881**	-.862**	-.776**	-.864**	-.837**	-.643**	-.584**	.919**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	42	42	42	42	42	42	42	42	42

** . Correlation is significant at the 0.01 level (2-tailed).

Lampiran 6. Dokumentasi Penelitian

Lampiran 7. Kuesioner/Tools yang Digunakan dalam Penelitian

INFORMED CONSENT

Saya yang bertanda tangan dibawah ini, menyatakan bersedia menjadi sampel penelitian yang dilakukan oleh Fahira Azzahra Nooraini, mahasiswa Program Studi S1 Fisioterapi, Fakultas Keperawatan, Universitas Hasanuddin Makassar dengan dosen pembimbing :

1. Salki Sadmita, S.Ft., Physio, M.Kes
2. Adi Ahmad Gondo, S.Ft., Physio, Mkes

Saya telah mendapat keterangan secara rinci dan jelas mengenai :

- a. Penelitian yang berjudul “Hubungan *Craniovertebral Angle* dengan Perubahan *Range of Motion Regio Cervical* dan Panjang *Musculus Pectoralis Minor* Pada Pegawai Dinas Perdagangan Kota Makassar”
- b. Perlakuan yang dilakukan pada subjek
- c. Prosedur penelitian
- d. Kerahasiaan informasi

Subjek penelitian mendapat kesempatan mengajukan pertanyaan mengenai segala sesuatu yang berhubungan dengan penelitian tersebut. Oleh karena itu,, saya bersedia secara sukarela untuk menjadi sampel penelitian dengan penuh kesadaran serta tanpa keterpaksaan. Demikian pernyataan ini saya buat dengan sebenarnya tanpa tekanan dari pihak manapun.

Makassar,

2023

Responden

(_____)

Universitas Hasanuddin

Kuesioner

Saya Fahira Azzahra Nooraini mahasiswa Fisioterapi Universitas Hasanuddin bermaksud untuk melakukan pendataan awal pada pegawai Dinas Perdagangan Kota Makassar. Saya mengucapkan banyak terima kasih kepada pihak-pihak yang membantu dalam terselenggaranya penelitian ini. Data-data yang kami peroleh akan dijaga kerahasiannya dan hanya dipergunakan untuk keperluan penelitian.

Pertanyaan	Jawaban
Nama Lengkap	
Jenis Kelamin	
Usia	
No. Hp	
Tinggi badan (cm)	
Berat Badan (kg)	
Lama bekerja di instansi terkait (bulan/tahun)	
Berapa jam anda menggunakan komputer/ <i>smartphone</i> dalam satu hari?	<input type="radio"/> 1-2 jam <input type="radio"/> 2-4 jam <input type="radio"/> >4 jam
Apakah saat ini anda sedang hamil? Jika iya, berapa usia kandungan anda?	Keterangan :
Apakah anda memiliki riwayat penyakit tertentu?	
Apakah anda memiliki riwayat cedera pada area bahu, leher, dan/atau kepala?	
Apakah terdapat riwayat operasi pada area bahu, leher, dan/atau kepala?	
Apakah anda telah atau sedang melakukan pengobatan atau intervensi?	<input type="radio"/> Pengobatan : <input type="radio"/> Intervensi/Latihan : <input type="radio"/> Senam : Dosis :

<i>Craniovertebral Angle</i>	Hasil Pengukuran : Interpretasi : <input type="radio"/> Normal <input type="radio"/> FHP Ringan <input type="radio"/> FHP Berat
<i>Range of Motion Regio Cervical</i>	Hasil pengukuran : <input type="checkbox"/> Fleksi : <input type="checkbox"/> Ekstensi : <input type="checkbox"/> Lateral Fleksi (Dextra) : <input type="checkbox"/> Lateral Fleksi (Sinistra) : <input type="checkbox"/> Rotasi (Dextra) : <input type="checkbox"/> Rotasi (Sinistra) :
<i>Acromion to Table Test</i> (Pengukuran Panjang <i>M. Pectoralis Minor</i>)	Hasil Pengukuran : <input type="checkbox"/> <i>M. Pectoralis Minor</i> Dextra : <input type="checkbox"/> <i>M. Pectoralis Minor</i> Sinistra :

*kuesioner diisi oleh peneliti

Lampiran 8. Draft Artikel



Original Research

The Correlation between Craniovertebral Angle with Range of Motion Cervical Region and Length of the Pectoralis Minor on Workers

Fahira Azzahra Nooraini^a, Salki Sadmita^b, Adi Ahmad Gondo^c,
Ita Rini^d, Asdar Fajrin Multazam^e

^{a,b,c,d,e} Physiotherapy Departement, Faculty of Nursing, Hasanuddin University

KEY WORDS

Craniovertebral Angle
Forward Head Posture
Range of Motion
Cervical
Musculus Pectoralis Minor

ABSTRACT

Background: Craniovertebral Angle (CVA) is a common method of assessing head posture. Normal CVA is 52.4 degrees, the smaller the craniovertebral angle describes the more forward position of the head. Incorrect posture of the neck and head can result in a change in body alignment resulting in loading on the muscles, joints and connective tissue which can actively affect the range of motion of the cervical region. Adaptive shortening of the pectoralis minor is also one of the results of this posture disorder. The purpose of this study was to determine the relationship between the craniovertebral angle and the range of motion of the cervical region and the length of the pectoralis minor muscle in office employees. **Method:** this research is a type of correlational research with a cross sectional design using a purposive sampling technique of 42 employees. Data collection was carried out by collecting primary data through a goniometer measurement instrument to measure the craniovertebral angle and range of motion of the cervical region, and to measure the length of the pectoralis minor muscle using the acromion to table test. **Results:** data obtained from measurements of the craniovertebral angle with the range of motion of the cervical region yielded a value of Sig. (2-tailed) of 0.000 (<0.05). On the length of the pectoralis minor muscle, the value of Sig. (2-tailed) of 0.000 (<0.05). The correlational coefficient values for the craniovertebral angle and range of motion cervical region variables are positive and for the pectoralis minor muscle length variable are negative. **Conclusion:** for the distribution, the results showed that the craniovertebral angle was dominated by samples with mild forward head posture, the range of motion for the cervical region was dominated by samples that experienced abnormality, and the length of the pectoralis minor muscle was dominated by samples that experienced shortening. In the variable craniovertebral angle with the range of motion of the cervical region and the length of the pectoralis minor muscle has a significant relationship.

[Nooraini, F (2023) The Correlation between Craniovertebral Angle with Range of Motion Cervical Region and Length of the Pectoralis Minor on Workers. *Journal of Physiotherapy*]

© 2023 Australian Physiotherapy Association. Published by Elsevier B.V.



Introduction

Having good posture is important in a healthy lifestyle. The head and neck are one of the most important parts of the human body. Under normal circumstances, the position of the head is directly above the neck and shoulders as the enforcer and the neck forms a normal Craniovertebral Angle (CVA) in the sagittal plane of about 52.4 degrees with the torso (1). Human daily activities are inseparable from the influence of technological developments. Increased use of technology such as computers and smartphones can be accompanied by an increase in bad posture habits (2).

Craniovertebral Angle (CVA) is an indicator of whether or not the spinal structure in a person's neck area is normal. When the angle is not normal, a person will be prone to neck dysfunction. CVA value <50 degrees indicates the occurrence of Forward Head Posture (FHP) (3). Forward Head Posture (FHP) is one of the most common types of postural deformity and is described as the anterior position of the head in relation to the vertical line of the body's center of gravity (4). FHP has also been associated with poor posture related to increased kyphosis of the thoracic spine and forward shoulder positioning (5).

Changes in posture that occur from changes in the normal craniovertebral angle in FHP cause a change in position between the cervical spine and the body's line of gravity, causing excessive burden on muscles, joints and connective tissue. Continuous loading on the

craniovertebral extensor muscles causes changes in biomechanical movements and functional movements in the head and neck area so that this will actively affect ROM in the cervical region (6).

Changes in the cervical curvature of the FHP cause an upper-crossed syndrome due to an imbalance in muscle pattern, which in turn leads to a forward shoulder posture. This condition can cause muscle imbalances in the form of shortening of the anterior shoulder muscles such as the pectoralis minor. The adaptive shortening of the pectoralis minor is an implication of the mechanism by which the forward shoulder rotates. Shortening of the pectoralis minor will change the kinematics of the scapula which is characterized by increased conditions of scapular abduction, elevation, anterior tilting, and internal rotation (E. K. Kim and Kim, 2016).

Anatomical changes in individuals with decreased craniovertebral angles will affect movement and function of the body, causing functional limitations in the area around the neck and head and individual daily activities. Therefore, researchers are interested in conducting research related to the relationship between craniovertebral angle and range of motion in the cervical region and pectoralis minor muscle length in employees at the Makassar City Trade service Office.

<https://doi.org/>

© 2023 Australian Physiotherapy Association. Published by Elsevier B.V.

Lampiran 9. Bukti *Submit* Artikel

Editorial Manager®
editorialmanager.com/jphys/default2.aspx

Journal of Physiotherapy
Fahira Nooraini | Logout

Home Main Menu Submit a Manuscript About Help

← Submissions Being Processed for Author ⓘ

Page: 1 of 1 (1 total submissions) Results per page 10

Action	Manuscript Number	Title	Initial Date Submitted	Status Date	Current Status
View Submission Send E-mail		The Correlation between Craniovertebral Angle with Range of Motion Cervical Region and Length of the Pectoralis Minor on Workers	Jul 07, 2023	Jul 07, 2023	Submitted to Journal

Page: 1 of 1 (1 total submissions) Results per page 10

USD/IDR +0,50%

Search

0011 08/07/2023

← Submission Confirmation Kotak Masuk ☆

Journal of Physiotherapy 11.56 PM
kepada saya ↵

Dear Fah,

We have received your article "The Correlation between Craniovertebral Angle with Range of Motion Cervical Region and Length of the Pectoralis Minor on Workers" for consideration for publication in Journal of Physiotherapy.

Your manuscript will be given a reference number once an editor has been assigned.

To track the status of your paper, please do the following:

1. Go to this URL: <https://www.editorialmanager.com/jphys/>
2. Log in as an Author
3. Click [Submissions Being Processed]

Thank you for submitting your work to this journal.

Kind regards,
Editorial Manager
Journal of Physiotherapy

Lampiran 10. Biodata Peneliti**BIODATA**

Nama : Fahira Azzahra Nooraini
 Tempat, Tanggal Lahir : Pinrang, 22 April 2001
 Agama : Islam
 Email : fahirafahfah@gmail.com
 Alamat Asal : Jl. KH. Ahmad Dahlan Sebengkok Waru RT 28
 RW 09 Kecamatan Tarakan Tengah, Kota Tarakan,
 Kalimantan Utara
 Alamat Sekarang : Jl. Perintis Kemerdekaan 3, BTN Hamzi Blok 0/10
 Nama Ayah : Aruji Sastra Diansyah
 Nama Ibu : Mardiana Arsjad

**Riwayat Pendidikan**

Program Studi S1 Fisioterapi Universitas Hasanuddin	Tahun 2019 – Sekarang
SMAN 1 Tarakan	Tahun 2016 – 2019
SMPN 1 Tarakan	Tahun 2013 – 2016
SDN 030 Tarakan	Tahun 2007 – 2013

Riwayat Organisasi

Badan Pengurus Harian Himafisio F.Kep-UH	Periode 2021 – 2022
Badan Pengurus TBF Sternum Himafisio F.Kep-UH	Periode 2021 – 2022
Kepala Departemen PSDM IMFI Wilayah V	Periode 2021 – 2022
Dewan Tinggi TBF Sternum Himafisio F.Kep-UH	Periode 2022 – 2023
LK 1 Himafisio F.Kep-UH	Tahun 2019