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LAMPIRAN

Lampiran 1. Surat Izin Penelitian

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

Nomor   : **13614/S.01/PTSP/2021**
Lampiran :
Perihal   : **Izin Penelitian**

KepadaYth.
Rektor Univ. Hasanuddin Makassar

di-
Tempat

Berdasarkan surat Dekan Fak. Keperawatan UNHAS Makassar Nomor : 2043//UN4.18.1/PT.01.04/2021 tanggal 12 April 2021 perihal tersebut diatas, mahasiswa/peneliti dibawah ini:

N a m a   : **WINNY KARAENG**
Nomor Pokok   : C041171511
Program Studi   : Fisioterapi
Pekerjaan/Lembaga : Mahasiswa(S1)
Alamat   : Jl. P. Kemerdekaan Km. 10, Makassar

Bermaksud untuk melakukan penelitian di daerah/kantor saudara dalam rangka penyusunan Skripsi, dengan judul :
" HUBUNGAN PERILAKU SEDENTER DENGAN NYERI MUSKULOSKELETAL PADA MAHASISWA YANG MENGIKUTI PERKULIAHAN SISTEM BLOK "

Yang akan dilaksanakan dari : Tgl. **22 April s/d 22 Mei 2021**

Sehubungan dengan hal tersebut diatas, pada prinsipnya kami **menyetujui** kegiatan dimaksud dengan ketentuan yang tertera di belakang surat izin penelitian.
Dokumen ini ditandatangani secara elektronik dan Surat ini dapat dibuktikan keasliannya dengan menggunakan **barcode**,
Demikian surat izin penelitian ini diberikan agar dipergunakan sebagaimana mestinya.

Diterbitkan di Makassar
Pada tanggal : 20 April 2021

A.n. GUBERNUR SULAWESI SELATAN
KEPALA DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU
SATU PINTU PROVINSI SULAWESI SELATAN
Selaku Administrator Pelayanan Perizinan Terpadu

Dr. JAYADI NAS, S.Sos., M.Si
Pangkat : Pembina Tk.I
Nip : 19710501 199803 1 004

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

SIMAP PTSP 20-04-2021

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

Universitas Hasanuddin

Lampiran 2. Surat telah Menyelesaikan Penelitian

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS HASANUDDIN
FAKULTAS KEPERAWATAN
PROGRAM STUDI S1 FISIOTERAPI

JL. PERINTIS KEMERDEKAAN KM.10 MAKASSAR 90245 FAKULTAS KEPERAWATAN LANTAI 2
email : keperawatan.unhas.ac.id

SURAT - KETERANGAN
Nomor : 2655/UN4.18.8/PT.01.05/2021

Ketua Program Studi S1 Fisioterapi Fakultas Keperawatan Universitas Hasanuddin, menerangkan bahwa :

Nama	:	WINNY KARAENG
NIM	:	C041171511
Program Studi	:	S1 Fisioterapi
Fakultas	:	Keperawatan Universitas Hasanuddin

Benar telah melaksanakan penelitian pada Mahasiswa Program Studi S1 Fisioterapi Fakultas Keperawatan Universitas Hasanuddin dengan Judul Skripsi " **Hubungan Perilaku Sedenter Dengan Nyeri Muskuloskeletal Pada Mahasiswa Yang Mengikuti Perkuliahan Sistem Blok**" yang dilaksanakan mulai tanggal 21 – 27 April 2021.

Demikian Surat keterangan ini di berikan kepada yang bersangkutan untuk dipergunakan sebagaimana mestinya, dalam rangka proses penyelesaian Studi (Skripsi) pada Program Studi S1 Fisioterapi Fakultas Keperawatan Universitas Hasanuddin.

Makassar, 6 Mei 2021
Bgmt. Ketua Program Studi S1 Fisioterapi,

Andi Besse Ahsaniyah A.Hafid, S.Ft.,Physio.,M.Kes
NIP.19901002 201803 2 001

Lampiran 3. Surat Lolos Kaji Etik

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS HASANUDDIN
FAKULTAS KESEHATAN MASYARAKAT
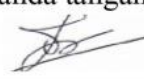**KOMITE ETIK PENELITIAN KESEHATAN**
Sekretariat :

Jl. Perintis Kemerdekaan Km. 10 Makassar 90245, Telp. (0411) 585658, 516-005,
Fax (0411) 586013E-mail : kepkfkmuh@gmail.com, website : www.fkm.unhas.ac.id

REKOMENDASI PERSETUJUAN ETIK
Nomor : **3435/UN4.14.1/TP.01.02/2021**

Tanggal : 10 Mei 2021

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

No.Protokol	15421091065	No. Sponsor Protokol	
Peneliti Utama	**Winny Karaeng**	Sponsor	Pribadi
Judul Peneliti	**Hubungan Perilaku Sedenter dengan Nyeri Muskuloskeletal pada Mahasiswa yang Mengikuti Perkuliahan Sistem Blok**		
No.Versi Protokol	1	Tanggal Versi	15 April 2021
No.Versi PSP	1	Tanggal Versi	15 April 2021
Tempat Penelitian	**Universitas Hasanuddin**		
Judul Review	[x] Exempted [ ] Expedited [ ] Fullboard	Masa Berlaku **10 Mei 2021 sampai 10 Mei 2022**	Frekuensi review lanjutan
Ketua Komisi Etik Penelitian	Nama : Prof.dr.Veni Hadju, M.Sc, Ph.D	Tanda tangan	Tanggal 10 Mei 2021
Sekretaris komisi Etik Penelitian	Nama : Dr. Wahiduddin, SKM., M.Kes	Tanda tangan	Tanggal 10 Mei 2021

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 Lapor 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. Informed Consent

LEMBAR PERSETUJUAN MENJADI RESPONDEN PENELITIAN
(***INFORMED CONSENT***)

Saya yang bertandatangan di bawah ini, menyatakan (bersedia/tidak bersedia) menjadi responden atas penelitian yang dilakukan oleh Winny Karaeng, mahasiswa Program Studi Fisioterapi Fakultas Keperawatan Universitas Hasanuddin Makassar dengan dosen pembimbing :

1. Irianto, S.Ft., Physio., M.Kes
2. Yery Mustari, S.Ft., Physio., MClinRehab

Telah mendapat keterangan secara terinci dan jelas mengenai :

a. Penelitian yang berjudul "Hubungan Perilaku Sedenter dengan Nyeri Muskuloskeletal pada Mahasiswa yang Mengikuti Perkuliahan Sistem Blok"
b. Perlakuan yang akan diterapkan pada subyek
c. Prosedur penelitian
d. Kerahasiaan informasi

Subyek penelitian mendapat kesempatan mengajukan pertanyaan mengenai segala sesuatu yang berhubungan dengan penelitian tersebut. Oleh karena itu saya (bersedia / tidak bersedia) secara sukarela untuk menjadi subyek penelitian dengan penuh kesadaran serta tanpa keterpaksaan. Demikian pernyataan ini saya buat dengan sebenarnya tanpa tekanan dari pihakmanapun.

Makassar,   2021

Peneliti   Responden

(................................)   (................................)

Universitas Hasanuddin

Lampiran 5. Identitas Subjek Penelitian

IDENTITAS SUBJEK PENELITIAN

1. Nama:

2. Jenis Kelamin:

3. Umur:

4. Tempat/Tanggal Lahir:

5. Alamat:

6. Fakultas/Program Studi:

7. Angkatan:

8. No. Telp/HP:

9. Riwayat penyakit sesuai dengan pemeriksaan dan diagnosis dokter (dibuktikan dengan *medical record*):

6.2.3.1. Penyakit kardiovaskular (hipertensi, aritmia, jantung koroner, jantung bawaan, dan penyakit jantung lainnya): **(ya/tidak)**

6.2.3.2. Penyakit pulmonal (asma, tuberkulosis, bronkitis, pneumonia, dan penyakit paru obstruktif lainnya): **(ya/tidak)**

6.2.3.3. Diabetes melitus: **(ya/tidak)**

10. Mengalami cedera olahraga (patah tulang, keseleo, kram otot, dan cedera lainnya): **(ya/tidak)**

11. Memiliki disabilitas pada ekstremitas: **(ya/tidak)**

12. Memiliki kebiasaan merokok: **(ya/tidak)**

13. Memiliki kebiasaan mengonsumsi alcohol: **(ya/tidak)**

Universitas Hasanuddin

Lampiran 6. *Sedentary Behaviour Questionnaire* (SBQ)
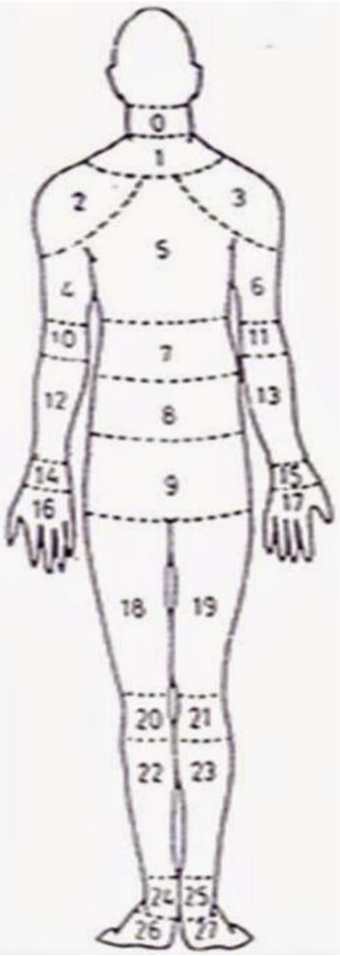
Bagian 1. Setiap hari kerja (Senin – Jumat), berapa lama waktu yang anda habiskan (dari saat bangun tidur hingga pada malam hari) untuk melakukan hal-hal berikut?									
Perilaku Sedenter (Senin – Jumat)									
Kegiatan	Tidak Ada	≤ 15 menit	30 menit	1 jam	2 jam	3 jam	4 jam	5 jam	≥ 6 jam
Menonton televisi atau DVD									
Menggunakan komputer atau bermain *video game*									
Duduk mendengarkan musik									
Duduk dan menelepon									
Mengerjakan tugas									
Duduk membaca buku, koran, atau majalah									
Memainkan alat musik									
Mengerjakan karya seni									
Duduk di dalam kendaraan seperti mobil atau bus									

Bagian 2. Setiap akhir pekan (Sabtu dan Minggu), berapa lama waktu yang anda habiskan (dari saat bangun tidur hingga pada malam hari) untuk melakukan hal-hal berikut?

Perilaku Sedenter (Sabtu dan Minggu)									
Kegiatan	Tidak Ada	≤ 15 menit	30 menit	1 jam	2 jam	3 jam	4 jam	5 jam	≥ 6 jam
Menonton televisi atau DVD									
Menggunakan komputer atau bermain *video game*									
Duduk mendengarkan musik									
Duduk dan menelepon									
Mengerjakan tugas									
Duduk membaca buku, koran, atau majalah									
Memainkan alat musik									
Mengerjakan karya seni									
Duduk di dalam kendaraan seperti mobil atau bus									

Lampiran 7. *Nordic Musculoskeletal Questionnaire* (NMQ)

Dalam 12 bulan terakhir ini, apakah anda merasakan nyeri, sakit atau tidak nyaman pada bagian-bagian tubuh di bawah ini? Tidak nyeri (1), ringan (2), sedang (3), dan sangat nyeri (4).			Jawaban			
			1	2	3	4
	0	Leher atas				
	1	Leher bawah				
	2	Bahu kiri				
	3	Bahu kanan				
	4	Lengan atas kiri				
	5	Punggung				
	6	Lengan atas kanan				
	7	Pinggang				
	8	Pantat atas				
	9	Pantat bawah				
	10	Siku kiri				
	11	Siku kanan				
	12	Lengan bawah kiri				
	13	Lengan bawah kanan				
	14	Pergelangan tangan kiri				
	15	Pergelangan tangan kanan				
	16	Tangan kiri				
	17	Tangan kanan				
	18	Paha kiri				
	19	Paha kanan				
	20	Lutut kiri				
	21	Lutut kanan				
	22	Betis kiri				
	23	Betis kanan				
	24	Pergelangan kaki kiri				
	25	Pergelangan kaki kanan				
	26	Kaki kiri				
	27	Kaki kanan				

Lampiran 8. *Family Affluence Scale* (FAS)

Pertanyaan	Jawaban
Apakah keluarga Anda memiliki mobil atau kendaraan bermotor lain?	0-Tidak
	1-Ya, Satu
	2- Ya, dua atau lebih
Apakah Anda memiliki kamar tidur sendiri?	0-Tidak
	1-Ya
Berapa kali Anda dan keluarga Anda bepergian ke luar kota untuk liburan / liburan tahun lalu?	0-Tidak sama sekali
	1-Sekali
	2-Dua kali
	3-Lebih dari dua kali
Berapa banyak komputer (termasuk laptop dan tablet, tidak termasuk konsol game dan smartphone) keluarga kamu sendiri?	0-Tidak
	1-Satu
	2-Dua
	3-Lebih dari dua
Apakah keluarga Anda memiliki mesin cuci?	0-Tidak
	1-Ya
Ada berapa kamar mandi (kamar dengan bak mandi / pancuran atau keduanya) di rumah Anda?	0-Tidak
	1-Satu
	2-Dua
	3-Lebih dari dua

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Lampiran 9. Hasil Uji SPSS

1. Karakteristik Demografis dan Klinis Subyek Penelitian

Usia				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	3	2.6	2.6	2.6
	19	38	32.5	32.5	35.0
	20	53	45.3	45.3	80.3
	21	20	17.1	17.1	97.4
	22	3	2.6	2.6	100.0
	Total	117	100.0	100.0	

Jenis Kelamin				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	11	9.4	9.4	9.4
	Perempuan	106	90.6	90.6	100.0
	Total	117	100.0	100.0	

Status Sosial Ekonomi				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sedang	102	87.2	87.2	87.2
	Tinggi	15	12.8	12.8	100.0
	Total	117	100.0	100.0	

Perilaku Sedenter				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rendah	45	38.5	38.5	38.5
	Sedang	26	22.2	22.2	60.7
	Tinggi	46	39.3	39.3	100.0
	Total	117	100.0	100.0	

Nyeri Muskuloskeletal				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rendah	43	36.8	36.8	36.8
	Sedang	66	56.4	56.4	93.2
	Tinggi	8	6.8	6.8	100.0
	Total	117	100.0	100.0	

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Jenis Kelamin * Usia Crosstabulation			Usia					
			18	19	20	21	22	Total
Jenis Kelamin	Laki-laki	Count	0	2	6	3	0	11
		% within Jenis Kelamin	0.0%	18.2%	54.5%	27.3%	0.0%	100.0%
		% within Usia	0.0%	5.3%	11.3%	15.0%	0.0%	9.4%
		% of Total	0.0%	1.7%	5.1%	2.6%	0.0%	9.4%
	Perempuan	Count	3	36	47	17	3	106
		% within Jenis Kelamin	2.8%	34.0%	44.3%	16.0%	2.8%	100.0%
		% within Usia	100.0%	94.7%	88.7%	85.0%	100.0%	90.6%
		% of Total	2.6%	30.8%	40.2%	14.5%	2.6%	90.6%
Total		Count	3	38	53	20	3	117
		% within Jenis Kelamin	2.6%	32.5%	45.3%	17.1%	2.6%	100.0%
		% within Usia	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	2.6%	32.5%	45.3%	17.1%	2.6%	100.0%

Jenis Kelamin * Status Sosial Ekonomi Crosstabulation			Status Sosial Ekonomi		
			Sedang	Tinggi	Total
Jenis Kelamin	Laki-laki	Count	10	1	11
		% within Jenis Kelamin	90.9%	9.1%	100.0%
		% within Status Sosial Ekonomi	9.8%	6.7%	9.4%
		% of Total	8.5%	0.9%	9.4%
	Perempuan	Count	92	14	106
		% within Jenis Kelamin	86.8%	13.2%	100.0%
		% within Status Sosial Ekonomi	90.2%	93.3%	90.6%
		% of Total	78.6%	12.0%	90.6%
Total		Count	102	15	117
		% within Jenis Kelamin	87.2%	12.8%	100.0%
		% within Status Sosial Ekonomi	100.0%	100.0%	100.0%
		% of Total	87.2%	12.8%	100.0%

Jenis Kelamin * Perilaku Sedenter Crosstabulation			Perilaku Sedenter			
			Rendah	Sedang	Tinggi	Total
Jenis Kelamin	Laki-laki	Count	3	2	6	11
		% within Jenis Kelamin	27.3%	18.2%	54.5%	100.0%
		% within Perilaku Sedenter	6.7%	7.7%	13.0%	9.4%
		% of Total	2.6%	1.7%	5.1%	9.4%
	Perempuan	Count	42	24	40	106
		% within Jenis Kelamin	39.6%	22.6%	37.7%	100.0%
		% within Perilaku Sedenter	93.3%	92.3%	87.0%	90.6%
		% of Total	35.9%	20.5%	34.2%	90.6%
Total		Count	45	26	46	117
		% within Jenis Kelamin	38.5%	22.2%	39.3%	100.0%
		% within Perilaku Sedenter	100.0%	100.0%	100.0%	100.0%
		% of Total	38.5%	22.2%	39.3%	100.0%

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Usia * Perilaku Sedenter Crosstabulation						
			Perilaku Sedenter			Total
			Rendah	Sedang	Tinggi	
Usia	18	Count	1	1	1	3
		% within Usia	33.3%	33.3%	33.3%	100.0%
		% within Perilaku Sedenter	2.2%	3.8%	2.2%	2.6%
		% of Total	0.9%	0.9%	0.9%	2.6%
	19	Count	19	5	14	38
		% within Usia	50.0%	13.2%	36.8%	100.0%
		% within Perilaku Sedenter	42.2%	19.2%	30.4%	32.5%
		% of Total	16.2%	4.3%	12.0%	32.5%
	20	Count	18	15	20	53
		% within Usia	34.0%	28.3%	37.7%	100.0%
		% within Perilaku Sedenter	40.0%	57.7%	43.5%	45.3%
		% of Total	15.4%	12.8%	17.1%	45.3%
	21	Count	6	4	10	20
		% within Usia	30.0%	20.0%	50.0%	100.0%
		% within Perilaku Sedenter	13.3%	15.4%	21.7%	17.1%
		% of Total	5.1%	3.4%	8.5%	17.1%
	22	Count	1	1	1	3
		% within Usia	33.3%	33.3%	33.3%	100.0%
		% within Perilaku Sedenter	2.2%	3.8%	2.2%	2.6%
		% of Total	0.9%	0.9%	0.9%	2.6%
Total		Count	45	26	46	117
		% within Usia	38.5%	22.2%	39.3%	100.0%
		% within Perilaku Sedenter	100.0%	100.0%	100.0%	100.0%
		% of Total	38.5%	22.2%	39.3%	100.0%

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Status Sosial Ekonomi * Perilaku Sedenter Crosstabulation						
			Perilaku Sedenter			Total
			Rendah	Sedang	Tinggi	
Status Sosial Ekonomi	Sedang	Count	42	21	39	102
		% within Status Sosial Ekonomi	41.2%	20.6%	38.2%	100.0%
		% within Perilaku Sedenter	93.3%	80.8%	84.8%	87.2%
		% of Total	35.9%	17.9%	33.3%	87.2%
	Tinggi	Count	3	5	7	15
		% within Status Sosial Ekonomi	20.0%	33.3%	46.7%	100.0%
		% within Perilaku Sedenter	6.7%	19.2%	15.2%	12.8%
		% of Total	2.6%	4.3%	6.0%	12.8%
Total		Count	45	26	46	117
		% within Status Sosial Ekonomi	38.5%	22.2%	39.3%	100.0%
		% within Perilaku Sedenter	100.0%	100.0%	100.0%	100.0%
		% of Total	38.5%	22.2%	39.3%	100.0%

Jenis Kelamin * Nyeri Muskuloskeletal Crosstabulation						
			Nyeri Muskuloskeletal			Total
			Rendah	Sedang	Tinggi	
Jenis Kelamin	Laki-laki	Count	3	8	0	11
		% within Jenis Kelamin	27.3%	72.7%	0.0%	100.0%
		% within Nyeri Muskuloskeletal	7.0%	12.1%	0.0%	9.4%
		% of Total	2.6%	6.8%	0.0%	9.4%
	Perempuan	Count	40	58	8	106
		% within Jenis Kelamin	37.7%	54.7%	7.5%	100.0%
		% within Nyeri Muskuloskeletal	93.0%	87.9%	100.0%	90.6%
		% of Total	34.2%	49.6%	6.8%	90.6%
Total		Count	43	66	8	117
		% within Jenis Kelamin	36.8%	56.4%	6.8%	100.0%
		% within Nyeri Muskuloskeletal	100.0%	100.0%	100.0%	100.0%
		% of Total	36.8%	56.4%	6.8%	100.0%

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Usia * Nyeri Muskuloskeletal Crosstabulation						
			Nyeri Muskuloskeletal			
			Rendah	Sedang	Tinggi	Total
Usia	18	Count	1	2	0	3
		% within Usia	33.3%	66.7%	0.0%	100.0%
		% within Nyeri Muskuloskeletal	2.3%	3.0%	0.0%	2.6%
		% of Total	0.9%	1.7%	0.0%	2.6%
	19	Count	18	16	4	38
		% within Usia	47.4%	42.1%	10.5%	100.0%
		% within Nyeri Muskuloskeletal	41.9%	24.2%	50.0%	32.5%
		% of Total	15.4%	13.7%	3.4%	32.5%
	20	Count	17	33	3	53
		% within Usia	32.1%	62.3%	5.7%	100.0%
		% within Nyeri Muskuloskeletal	39.5%	50.0%	37.5%	45.3%
		% of Total	14.5%	28.2%	2.6%	45.3%
	21	Count	6	13	1	20
		% within Usia	30.0%	65.0%	5.0%	100.0%
		% within Nyeri Muskuloskeletal	14.0%	19.7%	12.5%	17.1%
		% of Total	5.1%	11.1%	0.9%	17.1%
	22	Count	1	2	0	3
		% within Usia	33.3%	66.7%	0.0%	100.0%
		% within Nyeri Muskuloskeletal	2.3%	3.0%	0.0%	2.6%
		% of Total	0.9%	1.7%	0.0%	2.6%
Total		Count	43	66	8	117
		% within Usia	36.8%	56.4%	6.8%	100.0%
		% within Nyeri Muskuloskeletal	100.0%	100.0%	100.0%	100.0%
		% of Total	36.8%	56.4%	6.8%	100.0%

Status Sosial Ekonomi * Nyeri Muskuloskeletal Crosstabulation						
			Nyeri Muskuloskeletal			
			Rendah	Sedang	Tinggi	Total
Status Sosial Ekonomi	Sedang	Count	40	56	6	102
		% within Status Sosial Ekonomi	39.2%	54.9%	5.9%	100.0%
		% within Nyeri Muskuloskeletal	93.0%	84.8%	75.0%	87.2%
		% of Total	34.2%	47.9%	5.1%	87.2%
	Tinggi	Count	3	10	2	15
		% within Status Sosial Ekonomi	20.0%	66.7%	13.3%	100.0%
		% within Nyeri Muskuloskeletal	7.0%	15.2%	25.0%	12.8%
		% of Total	2.6%	8.5%	1.7%	12.8%
Total		Count	43	66	8	117
		% within Status Sosial Ekonomi	36.8%	56.4%	6.8%	100.0%
		% within Nyeri Muskuloskeletal	100.0%	100.0%	100.0%	100.0%
		% of Total	36.8%	56.4%	6.8%	100.0%

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2. Hasil Uji Normalitas dan Uji Korelasi

One-Sample Kolmogorov-Smirnov Test			
		SBQ	NMQ
N		117	117
Normal Parameters[a,b]	Mean	75.58	54.09
	Std. Deviation	38.225	11.442
Most Extreme Differences	Absolute	.091	.105
	Positive	.091	.073
	Negative	-.054	-.105
Test Statistic		.091	.105
Asymp. Sig. (2-tailed)		.018[c]	.003[c]
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			

Correlations				
			SBQ	NMQ
Spearman's rho	SBQ	Correlation Coefficient	1.000	.759[**]
		Sig. (2-tailed)	.	.000
		N	117	117
	NMQ	Correlation Coefficient	.759[**]	1.000
		Sig. (2-tailed)	.000	.
		N	117	117
**. Correlation is significant at the 0.01 level (2-tailed).				

| Correlations				
			KodingSBQ	KodingNMQ
Spearman's rho	KodingSBQ	Correlation Coefficient	1.000	.855[**]
		Sig. (2-tailed)	.	.000
		N	117	117
	KodingNMQ	Correlation Coefficient	.855[**]	1.000
		Sig. (2-tailed)	.000	.
		N	117	117
**. Correlation is significant at the 0.01 level (2-tailed).				

3. Distribusi Nyeri Muskuloskeletal berdasarkan Letak

Kategori	Leher Atas	Leher Bawah	Bahu Kiri	Bahu Kanan	Lengan Atas Kiri	Punggung	Lengan Atas Kanan	Pinggang	Panggul
Tidak Nyeri	20,51	21,37	26,50	23,93	57,26	9,40	43,59	11,97	22,22
Ringan	33,33	28,21	32,48	35,90	28,21	14,53	35,04	24,79	25,64
Sedang	29,91	38,46	30,77	33,33	11,11	36,75	15,38	36,75	32,48
Berat	16,24	11,97	10,26	6,84	3,42	39,32	5,98	26,50	19,66

Kategori	Pantat	Siku Kiri	Siku Kanan	Lengan Bawah Kiri	Lengan Bawah Kanan	Pergelangan Tangan Kiri	Pergelangan Tangan Kanan	Tangan Kiri	Tangan Kanan
Tidak Nyeri	23,93	68,38	65,81	54,70	49,57	57,26	50,43	44,44	39,32
Ringan	22,22	25,64	23,93	33,33	34,19	26,50	35,04	26,50	27,35
Sedang	34,19	5,13	9,40	11,11	14,53	15,38	11,97	23,93	29,06
Berat	19,66	0,85	0,85	0,85	1,71	0,85	2,56	5,13	4,27

Kategori	Paha Kiri	Paha Kanan	Lutut Kiri	Lutut Kanan	Betis Kiri	Betis Kanan	Pergelangan Kaki Kiri	Pergelangan Kaki Kanan	Kaki Kiri	Kaki Kanan
Tidak Nyeri	48,72	51,28	73,50	64,96	42,74	45,30	62,39	56,41	35,90	36,75
Ringan	27,35	26,50	22,22	24,79	39,32	38,46	30,77	25,64	22,22	24,79
Sedang	21,37	17,09	4,27	9,40	15,38	14,53	5,98	14,53	29,06	23,93
Berat	2,56	5,13	0,00	0,85	2,56	1,71	0,85	3,42	12,82	14,53

Lampiran 10. Dokumentasi Penelitian
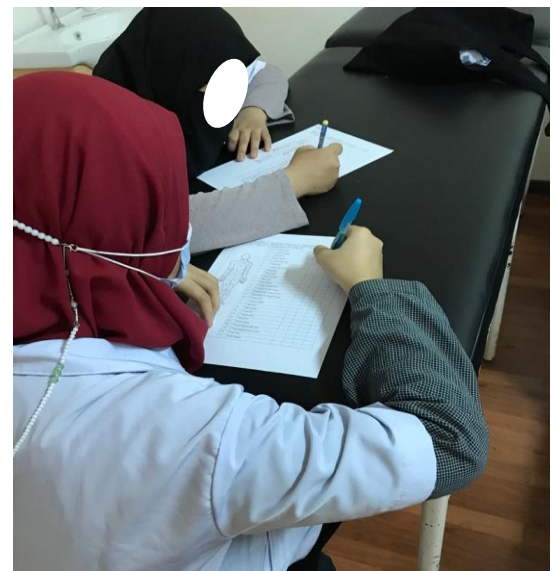
ASSOCIATION BETWEEN SEDENTARY BEHAVIOUR AND MUSCULOSKELETAL PAIN IN STUDENT ON BLOCK SYSTEM LECTURE

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Abstract

Sedentary behavior in students, especially students who take block system lectures, is very important to be studied along with the factors that influence it to improve health conditions and productivity. The most neglected problem caused by sedentary behavior is musculoskeletal pain, so it needs to be examined from the aspect of health or a healthy lifestyle. This study aims to determine the relationship between sedentary behavior and musculoskeletal pain in students who take block system lectures. This study used a cross-sectional design with a sample size of one hundred and seventeen people (n = 117) who were students of the Hasanuddin University General Medicine, Physiotherapy, Nutrition, Nursing and Dentistry study programs. There are several data that will be collected, including the level of sedentary behavior and the level of musculoskeletal pain. The data were collected using a questionnaire. This study showed a significant correlation between sedentary behavior and musculoskeletal pain (p <0.05). The value of r (Spearmen correlation) obtained is close to number 1, which is 0.855. This value also further indicates that sedentary behavior is associated with musculoskeletal pain.

INTRODUCTION

Sedentary behavior is becoming a trend in every country in the young age group. Even the current generation is predicted to have a lower quality of life compared to previous generations due to changes in lifestyle to be more sedentary[1]. Sedentary behavior at risk increases the incidence of cardiovascular disease, osteoporosis, cholesterol, and musculoskeletal pain[2].

Some data show that musculoskeletal pain is an indication that arises from sedentary behavior, such as sitting for long periods of time.[3]. One of the occupational risk factors that is often associated with a positive relationship with the incidence of musculoskeletal pain is prolonged sitting position.[4].

Sedentary behavior makes a major contribution to the increase in the incidence of musculoskeletal pain because a sedentary posture causes the circulation of blood and oxygen

in the body to decrease so that the metabolic process is inhibited.[5]. High sedentary behavior together with low physical activity worsens health conditions and increases the risk of death[6]. Sedentary behavior among students and students and is increasingly experiencing an increase from the previous condition coupled with large-scale restrictions due to the COVID-19 pandemic[7]. This is because teaching and learning activities that are usually carried out on campus must be allocated to their respective homes and carried out online (in a network) so as to make students sit and be in a static position for a long time.[8].

Students who take block system lectures tend to be in a longer sedentary position because block system lectures are conducted with a longer duration of teaching and learning because the block system method has a simpler packaging for learning hours but compresses the learning load within the target time. certain attempts to balance theory with skill[9]. Thus, students who take block system lectures will tend to stay in a fixed position for a long duration in accordance with the face-to-face duration of the lecture.[10].

METHOD

This research is an analytical study with a cross sectional design by examining the relationship between sedentary behavior and musculoskeletal pain in students who are taking block system lectures.The population in this study were Hasanuddin University students who attended block system lectures, namely the General Medicine Education, Physiotherapy, Nursing, Dentistry and Nutrition Science study programs, batches of 2018 and 2019, aged 18-22 years. Participants were not included in the study sample if they had musculoskeletal injuries, had a history of pulmonary disease, cardiovascular disease, diabetes mellitus, cholesterol, disabilities, smoking habits, and alcohol consumption habits.

Data collection was carried out using a questionnaire in the form of google form. Information regarding the characteristics and general condition of the respondents, including name, age, gender, socioeconomic status, medical history, injury history, smoking habits, and alcohol consumption habits were identified through a questionnaire. The value of sedentary behavior was measured using the Sedentary Behavior Questionnaire (SBQ). After that, the measurement of the value of musculoskeletal pain was carried out using the Nordic Musculoskeletal Questionnaire (NMQ).

The data that has been obtained are primary data which is the result of measuring sedentary behavior and musculoskeletal pain. After the data was collected, it was analyzed using univariate and bivariate analysis. Univariate analysis was used to determine the distribution frequency of each variable. Meanwhile, the bivariate analysis which was processed by means of the normality test of the data first. Furthermore, the Spearman test was carried out using a computer program statistical product and service solutions (SPSS) 24 to determine the relationship between the independent variable and the dependent variable.

RESULTS

The results of this study indicate that of the 117 respondents, most of them were female. In addition, the respondents of this study were dominated by students aged 19 and 20 years, and most of them came from moderate socioeconomic status. In this study, the measurement of sedentary behavior and musculoskeletal pain was measured.

Table 1: Distribution of Sedentary Behavior and Musculoskeletal Pain by Gender

Characteristics Sedentary Behavior	Man n (%)	Women n (%)	Total N (%)
Low	3 (2.6)	42 (35.9)	45 (38.5)
Moderate	2 (1.7)	24 (20.5)	26 (22.2)
High	6 (5.1)	40 (34.2)	46 (39.3)
Total N (%)	11 (9.4)	106 (90.6)	117 (100)
Musculoskeletal Pain			
Low	3 (2.6)	40 (34.2)	43 (36.8)
Moderate	8 (6.8)	58 (49.6)	66 (56.4)
High	0	8 (6.8)	8 (6.8)
Total N (%)	11 (9.4)	106 (90.6)	117 (100)

Source: Primary Data, 2021 (Note: N = Total Number of Samples, n = Frequency)

From these data it can be concluded that moderate musculoskeletal pain in males and females has a fairly high total percentage and the total percentage of high- category sedentary behavior in males and females is quite high compared to the moderate and low categories.

Table 2. Distribution of Sedentary Behavior and Musculoskeletal Pain by Age.

Characteristics	18 n (%)	19 n (%)	20 n (%)	21 n (%)	22 n (%)	Total N (%)
Sedentary Behavior						
Low	1 (0.9)	19 (16.2)	18 (15.4)	6 (5.1)	1 (0.9)	45 (38.5)
Moderate	1 (0.9)	5 (4.2)	15 (12.8)	4 (3.4)	1 (0.9)	26 (22.2)
High	1 (0.9)	14 (11.9)	20 (17.1)	10 (8.5)	1 (0.9)	46 (39.3)
Total N (%)	3 (2.7)	38 (32.3)	53 (45.3)	20 (17)	3 (2.7)	117 (100)
Musculoskeletal Pain						
Low	1 (0.9)	18 (15.4)	17 (14.5)	6 (5.1)	1 (0.9)	43 (36.8)
Moderate	2 (1.7)	16 (13.7)	33 (28.2)	13 (11.1)	2 (1.7)	66 (56.4)
High	0	4 (3.4)	3 (2.5)	1 (0.9)	0	8 (6.8)
Total N (%)	3 (2.7)	38 (32.3)	53 (45.3)	20 (17)	3 (2.7)	117 (100)

Source: Primary Data, 2021 (Note: N = Total Number of Samples, n = Frequency)

In Table 2, shows that the total percentage of high-category sedentary behavior at the age of 18 to 22 years is high compared to the medium and low categories. In addition, the percentage of moderate musculoskeletal pain also occupies a fairly high number.

Table 3. Distribution of Sedentary Behavior and Musculoskeletal Pain based on SSE.

Characteristics	Low SSE n (%)	SSE Moderate n (%)	SSE High n (%)	Total N (%)
Sedentary Behavior				
Low	0	42 (35.9)	3 (2.6)	45 (38.5)
Moderate	0	21 (18)	5 (4.2)	26 (22.2)
High	0	39 (33.3)	7 (6)	46 (39.3)
Total N (%)	0	102 (87.2)		
			15 (12.8)	117 (100)
Musculoskeletal Pain				
Low	0	40 (34.2)	3 (2.6)	43 (36.8)
Moderate	0	56 (47.9)	10 (8.5)	66 (56.4)
High	0	6 (5.1)	2 (1.7)	8 (6.8)
Total N (%)	0	102 (87.2)	15 (12.8)	117 (100)

Source: Primary Data, 2021 (Note: N = Total Number of Samples, n = Frequency)

In addition, in Table 3, it shows that respondents with moderate and high SSE have a high total percentage of high-category sedentary behavior and moderate-category musculoskeletal pain.

After analyzing the respondent's data, the data normality test was then carried out to determine the state of the distribution of the research data carried out. The results obtained, a significant value of 0.00. So it can be concluded that the data is not normally distributed. Then the correlation test was carried out using the Spearman test. The Spearman test results showed a relationship between sedentary behavior and musculoskeletal pain.

Table 4. Analysis of the Relationship between Sedentary Behavior and Musculoskeletal Pain

	Musculoskeletal Pain		
Sedentary Behavior	n	r	p
	117	0.855	0.00

Source: Primary data, 2021 (Note: n = total number of samples, p = Significance Spearmen, r = Spearmen correlation)

DISCUSSION

The sedentary behavior data that has been obtained in this study indicate that most of the students who take the block system lectures have a relatively high sedentary behavior, namely 39.3% of the total sample. As for musculoskeletal pain, most of the students who took the block system class were classified as having moderate musculoskeletal pain, namely 56.4% of the total sample. In this study, it was found that there was a significant relationship between sedentary behavior and musculoskeletal pain. As stated by Mielke et al. that musculoskeletal pain is one indication that arises from sedentary behavior, such as sitting for long periods of time[3]. One of the occupational risk factors that is often associated with a positive relationship with the incidence of musculoskeletal pain is prolonged sitting position.[4].

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Avoiding sedentary behavior can prevent musculoskeletal pain because sedentary behavior contributes greatly to an increase in the incidence of musculoskeletal pain which is caused by a sedentary posture which causes blood circulation and oxygen in the body to decrease so that metabolic processes are disrupted.[5]. Changes in lifestyle to sedentary lifestyle (sedentary behavior) cause the incidence of mild musculoskeletal pain that will eventually become severe and long term[11].

In addition, a cross-sectional study conducted by Mahdavi and Kelishadi showed the impact of sedentary behavior while at home during the COVID-19 pandemic, namely health problems, one of which is musculoskeletal pain caused by decreased intensity and frequency of movement during their stay. at home[12]. Muscles that work dynamically will get a lot of oxygen and glucose so they are rich in energy and metabolic waste can be immediately removed, while muscles that work statically get less glucose and oxygen from the blood so they have to use existing reserves. More than that the waste products cannot be transported out, but buried[13]. This is what triggers musculoskeletal pain. In addition, sedentary behavior will cause an increase in work stress which triggers an increase in the production of adrenaline and cortisol hormones, but decreases the production of endorphin hormones so that a neuromatrix process occurs which makes a person more sensitive to pain.

Research conducted by[1]in students confirmed that sedentary behavior, in this case sitting position with a long duration, is associated with the onset of musculoskeletal pain. The sedentary position they do while studying makes body discomfort especially in the lower back, shoulders, and neck, but when they stretch and some physical activity at leisure the discomfort or pain that they feel gradually goes away.

Although almost all studies suggest that there is a significant correlation between sedentary behavior and musculoskeletal pain, there are still several studies that show that there is no correlation between the two variables. In research conducted by research conducted by[14]Regarding the analysis of health indicators that have the effect of sedentary behavior on adolescent girls, it shows that there is no clear correlation between sedentary behavior and musculoskeletal pain. This study confirms that sedentary behavior is associated with many health problems, but additional longitudinal studies are needed to understand what kind of health effects this behavior can have. The weakness of this study is that the sample only consists of young women aged 12-18 years, so it tends not to represent the general condition of both men and women.

The difference in research results can be caused by many factors, such as changes in lifestyle or lifestyle from year to year, as well as differences in age ranges, body anthopometry, other physical activities, assessment or measurement indicators, as well as sample characteristics that differ from one study to another.

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