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APPENDICES

Poltekkes Bengkulu

Appendix 1 Inform consent and research explanation

INFORM CONSENT AND RESEARCH EXPLANATION

Dear Sir or Madam

Prospective Participants

Respectfully,

I am the undersigned:

Name : Miftah Kamilia Fadhilah
Program study : Bachelor of Applied Nursing
Student ID : P01720322025
Phone Number : 082289100587

It is a student of the Bengkulu Ministry of Health Polytechnic who is carrying out a research with the title: **The Effectiveness of Foot Reflexology Using a Foot Reflection Board and Buerger Allen Exercise on Foot Sensitivity in People with Diabetes Mellitus in the Working Area of the Sawah Lebar Health Center, Bengkulu City in 2026**. The purpose of this study is to determine the difference in the effectiveness of Foot Reflexology Using a Foot Reflection Board and Buerger Allen Exercise on foot sensitivity in people with Diabetes Mellitus at the Sawah Lebar Health Center, Bengkulu City in 2026.

In this study, participants will be given questionnaires and foot sensitivity measurements to assess foot sensitivity scores in people with diabetes mellitus. This study did not cause any harm, harm, or effect to the participants. If you have become a participant and incriminating things occur, then it is allowed to report to the researcher or can immediately withdraw from this study by contacting the researcher at the phone number listed above. Participants will be compensated in the form of souvenirs after the research is completed.

The confidentiality of all information provided will be maintained and will only be used for research purposes. All results of records or participant data will be stored at the Bengkulu Ministry of Health Polytechnic. If you agree, I ask for your willingness to sign the consent sheet as a research participant. I would like to thank you for your attention, cooperation and willingness to be a participant.

After reading the information and understanding the research objectives and the expected role in this study, I agreed to participate in the research.

Bengkulu, March 10, 2026

(Miftah Kamilia Fadhilah)

Appendix 2 Application letter to become a participant

APPLICATION LETTER TO BECOME A PARTICIPANT

Respectfully,

I am a student of the Applied Bachelor of Nursing Study Program of the Ministry of Health of the Ministry of Health of Bengkulu:

Name : Miftah Kamilia Fadhilah

Student ID : P01720322025

I will conduct a research entitled "**The Effectiveness of Foot Reflexology Using a Foot Reflection Board and Buerger Allen Exercise on Foot Sensitivity in People with Diabetes Mellitus in the Working Area of the Sawah Lebar Health Center, Bengkulu City in 2026**".

In connection with this intention, I humbly ask for your participation to become a participant in this research. The data obtained from this study can be beneficial for the community, health workers, and educational institutions. Information about the data obtained will be guaranteed confidentiality and will only be used for research data. Thus this request, I thank you for your attention and participation.

Bengkulu, March 10, 2026

Sincerely,

Miftah Kamilia Fadhilah

Appendix 3 Statement of willingness to become a participant

LETTER OF CONSENT TO BECOME A PARTICIPANT

I am the undersigned:

Name :
Age :
Gender :
Address :
Phone Number :

I am hereby willing to participate as a participant in the research conducted by Miftah Kamilia Fadhillah, a student of Applied Bachelor of Nursing at the Health Polytechnic of the Ministry of Health Bengkulu with the title **"The Effectiveness of Foot Reflexology Using a Foot Reflection Board and Buerger Allen Exercise On Foot Sensitivity in People with Diabetes Mellitus in the Working Area of the Sawah Lebar Health Center, Bengkulu City in 2026"**.

This research will not harm me or have a bad effect on me and my family, so I am willing to be a participant. Thus, I made this letter of approval to be used as it should.

Bengkulu, 2026

(.....)

Appendix 4 Identity questionnaire sheets

IDENTITY QUESTIONNAIRE SHEET

A. CHARGING INSTRUCTIONS

1. Please be willing to fill out this questionnaire according to the actual conditions, by giving a checkmark (√) on the answers that have been provided.
2. All of your answers are CORRECT.
3. All questions are filled in honestly as possible.
4. If there are any questions that are not understood, ask the researcher/nurse who assisted in this research for direct guidance.

B. PARTICIPANT DEMOGRAPHIC DATA

1. Participant's name :
2. Gender :
3. Address :
4. Age :
5. Phone Number :
6. Duration of DM :
7. Have felt complaints in the legs, in the form of pain, numbness, cramps, numbness and tingling?
☐ Yes ☐ No
8. Do you suffer from diseases other than DM?

☐ Stroke	☐ Asthma
☐ Kidney failure	☐ Hypertension
☐ Heart failure	☐ Stomach
☐ Gout	☐ Others, mention.....
☐ Cholesterol	

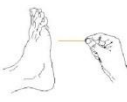
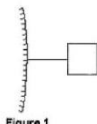
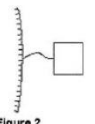
C. FOOT SENSITIVITY CHECK (*Filled in by the officer*)

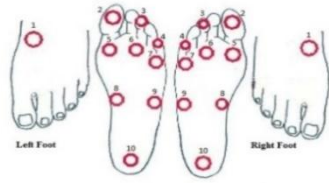
No	Types of Inspections	Right Foot				Left Foot			
	Foot Sensitivity Check with Monofilament 10 g								
1.	Plantar 1st digit / Hallux		Yes		No		Yes		No
2.	Plantar 3rd digit		Yes		No		Yes		No
3.	Plantar 5th digit		Yes		No		Yes		No
4.	1st metatarsal head		Yes		No		Yes		No
5.	3rd metatarsal head		Yes		No		Yes		No
6.	5th metatarsal head		Yes		No		Yes		No
7.	Medial longitudinal arch		Yes		No		Yes		No
8.	Lateral longitudinal arch		Yes		No		Yes		No
9.	Heel (or <i>Calcaneus / Plantar heel</i>)		Yes		No		Yes		No
10.	Dorsum of the foot		Yes		No		Yes		No

D. Blood Sugar Level Check (*filled in by the officer*)

Results : mg/dL

Appendix 5 SOP Monofilament Test

STANDARD OPERATING PROCEDURES MONOFILAMENT TEST EXAMINATION	
EVALUATION POINTS	
Definition	Neuropathy – Causes loss of protective sensation in the legs, increasing the risk of skin damage over the weight of the surface cushion.
Purpose	Checking the sensitivity of the foot.
Indications/Contraindications:	Testing of Monofilament both legs should be done with clients who have one or both of the following: 1. In the diagnosis of diabetes and/or diabetic ulcers, numbness, tingling, burning or "crawling" sensations in one or both legs. 2. This procedure should be used in conjunction with the Guidelines for Diabetic Ulcers and Neuropathy if the client has a wound.
Tool Preparation:	1. Gloves 2. Monofilament 10 g
IMPLEMENTATION PROCEDURE	
1. Using 10 g size Monofilament (5,07).  2. Asking the patient to take off his socks and shoes. 3. Explain the procedure to the patient and show the Monofilament to the patient. 4. Before examining the participant's legs, Monofilament is first tested on the sternum or hand with the intention that the patient can recognize the sensation of touch from the touch of Monofilament. 5. Ask the client to close his eyes and indicate when he feels the Monofilament touching the foot by responding "yes". 6. The monofilament is placed perpendicular to the examined skin, the pressure is carried out for 2 seconds, then immediately withdrawn.    7. Use Monofilament at 10 location points on the left and right legs. Random location selection will prevent the patient from forecasting the next area. If there are ulcers, calluses or scars on the legs, apply Monofilament to the adjacent area. If the participant has had an amputation, the test is performed at a possible location point only.	



8. At each location, 3 examinations were carried out if the patient was indicated not to feel Monofilament.
9. Assessment of examination results:
 - a. Positive: can sense the pressure of the Monofilament and can show the exact location after the Monofilament is lifted, at 2-3 times of inspection.
 - b. Negative: unable to feel pressure or points can indicate the location precisely, on 2 out of 3 examinations.
10. Positive result score = 1, negative result score = 0. So the total score on one leg varies between 0-10.
11. In documenting the results of the Monofilament Test, if it is written 6/9, it can be interpreted that the patient can feel the touch of the Monofilament at 6 location points and only tests are carried out at 9 area points because of the patient's thumb that has been amputated.

Source: (South West Regional Wound Care Program, 2020)

Appendix 6 SOP Foot Reflexology using a Foot Reflection Board

STANDARD OPERATING PROCEDURES FOOT REFLEXOLOGY USING A FOOT REFLECTION BOARD	
EVALUATION POINTS	
Definition	Foot Reflection Board is a therapy device that combines the reflection points of the soles of the foot with acupressure-like focused pressure
Purpose	Foot Reflection Board aims to relieve symptoms of neuropathy, especially the numbness sensation that is often experienced by diabetic patients. In addition to improving blood circulation and reducing pain, this intervention also functions to improve sensory responses, balance foot pressure, and trigger cell regeneration
Indikasi	Patients with diabetes mellitus (type I and type II DM)
A. Implementation Procedure	
1. Client preparation a. The client is notified of the action taken b. Client in a standing position 2. Environmental preparation a. A quiet and conducive room 3. Nurse preparation a. Hand washing 6 steps b. Contract topic, time, place and purpose 4. Tool preparation a. Foot Reflection Board	
B. Onboarding Stage	
1. Conveying greetings 2. Introducing yourself to patients 3. Remind today's time contract 4. Explain the purpose of the Foot Reflection Board therapy nursing action to be carried out.	
C. Stages of Work	
1. Ask the patient to remove the footwear, shoes/sandals. 2. Patients are asked to stand up straight and hold on to a chair or wall. 3. Place the foot in position 1, hold for 30 seconds. 4. Put your foot in position 2, do a gentle foot stamping for 60 seconds. 5. Repeat back from position 1 to position 2. 6. Do it for 15 minutes.	

D. Tahap Terminasi

1. Tidying up tools and materials
2. Follow-up contracts
3. Greetings
4. Documentation of the results of the action

Source : (Suwannarat *et al.*, 2025)

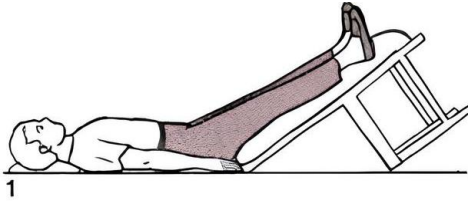


Appendix 7 SOP Buerger Allen Exercise

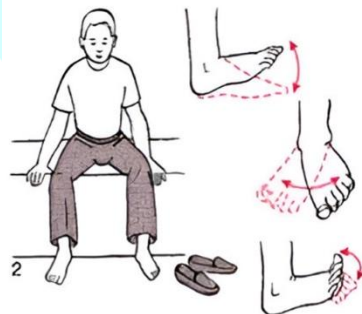
STANDARD OPERATING PROCEDURES BUERGER ALLEN EXERCISE	
EVALUATION POINTS	
Definition	Buerger Allen Exercise (BAE) combines gravity-based posture changes with muscle pump mechanisms (dorsiflexion and plantarflexion). This series of movements includes the leg elevation phase as high as 45°, the leg lowering phase, to the resting phase in the supine position.
Purpose	1. Improves blood flow to the lower extremities in diabetic patients with impaired circulation and decreased sensitivity due to peripheral neuropathy. 2. Increases tissue perfusion, so that it can reduce pain and edema in the legs. 3. Optimizes blood supply down to the cellular level to support the formation of new vascular structures. 4. Increase vascularization to speed up the healing of diabetic leg wounds while restoring foot sensitivity.
Indication	Patients with diabetes mellitus (type I and type II DM)
A. Implementation Procedure	
1. Client preparation a. The client is notified of the action taken b. Client in a lying position 2. Environmental preparation a. A quiet and conducive room 3. Nurse preparation a. Hand washing 6 steps b. Contract topic, time, place and purpose 4. Tool preparation a. 2 pieces of Pillows/Chairs b. Matras c. Blankets	
B. Onboarding Stage	
1. Conveying greetings 2. Introducing yourself to patients 3. Remind today's time contract 4. Explain the purpose of the Buerger Allen Exercise therapy nursing action to be carried out.	

C. Stages of Work

1. Position the client lying on his back or supinating for ± 3 minutes to make the client more relaxed in the implementation of this physical exercise.
2. Elevation Stage
Make postural changes to the lower extremities by positioning your legs $\pm 45^\circ$ for ± 3 minutes using a pillow support and performing flexion-extension movements on the legs.



3. Decline Stage
 - a. The next movement is to sit on the edge of the bed with the legs hanging and perform dorsophyllation - plantarflexion movements, which are the soles of the feet up as much as possible and stretch the soles of your feet downwards for ± 3 minutes.
 - b. This is followed by the inference-eversion movement, which is moving the ankle for 3 minutes towards the outer side and towards the inner side.
 - c. Then the flexion-extension movement is to bend the toes down and pull the toes up for approximately 3 minutes.



4. Horizontal or lying stage
The patient in a lying position or legs is laid flat on the bed for $\pm 3-5$ minutes.



D. Termination Stage

1. Tidying up tools and materials
2. Follow-up contracts
3. Greetings

4. Documentation of the results of the action

Source: (Mohammad *et al.*, 2021)



Appendix 8 Master Table

No	Name	Group		Age	Gender		Random Blood Glucose Level	Duration of DM	Pre		Post		Delta	
		Remarks	Code		Remarks	Code			Right	Left	Right	Left	Right	Left
1	Mrs. R	FRB	0	63	Female	0	134	8	9	9	10	10	1	1
2	Mr. C	FRB	0	48	Male	1	256	7	6	5	8	8	2	3
3	Mr. T	FRB	0	73	Male	1	224	3	7	6	9	8	2	2
4	Mrs. S	FRB	0	53	Female	0	345	7	5	5	8	7	3	2
5	Mrs. E	FRB	0	61	Female	0	181	19	9	7	10	9	1	2
6	Mrs. T	FRB	0	65	Female	0	235	5	3	4	6	6	3	2
7	Mrs. R	FRB	0	54	Female	0	209	5	5	4	7	7	2	3
8	Mrs. N	FRB	0	66	Female	0	420	17	2	2	5	4	3	2
9	Mrs. E	FRB	0	56	Female	0	261	3	3	5	6	7	3	2
10	Mrs. J	FRB	0	62	Female	0	206	6	3	3	7	5	4	2
11	Mrs. Z	FRB	0	53	Female	0	239	1	9	9	10	9	1	0
12	Mrs. K	FRB	0	67	Female	0	361	5	3	5	6	9	3	4
13	Mrs. M	FRB	0	54	Female	0	156	2	7	6	9	9	2	3
14	Mrs. D	FRB	0	60	Female	0	288	10	3	3	6	6	3	3
15	Mrs. C	FRB	0	52	Female	0	210	12	6	3	7	3	1	0
16	Mrs. M	FRB	0	74	Female	0	237	14	4	3	8	7	4	4
17	Mrs. J	FRB	0	62	Female	0	228	18	5	4	7	7	2	3
18	Mrs. F	FRB	0	56	Female	0	259	11	6	4	9	6	3	2
19	Mrs. S	FRB	0	62	Female	0	247	12	4	3	7	7	3	4

20	Mrs. N	FRB	0	62	Female	0	198	17	7	8	7	9	0	1
21	Mrs. S	FRB	0	62	Female	0	403	22	2	4	2	4	0	0
22	Mrs. T	FRB	0	70	Female	0	302	23	4	5	4	5	0	0
23	Mrs. E	FRB	0	47	Female	0	204	14	6	4	10	7	4	3
24	Mrs. B	FRB	0	27	Female	0	263	2	7	8	10	10	3	2
25	Mrs. H	FRB	0	32	Female	0	232	16	4	4	7	7	3	3
26	Mrs. S	FRB	0	70	Female	0	462	34	3	4	3	4	0	0
27	Mrs. R	FRB	0	59	Female	0	232	24	4	4	7	8	3	4
28	Mr. N	FRB	0	36	Male	1	285	12	6	3	8	5	2	2
29	Mrs. S	FRB	0	69	Female	0	298	14	6	3	9	5	3	2
30	Mr. Z	FRB	0	52	Male	1	214	4	4	6	6	9	2	3
31	Mrs. E	BAE	1	63	Female	0	230	10	3	4	5	6	2	2
32	Mrs. E	BAE	1	66	Female	0	180	2	6	8	8	10	2	2
33	Mrs. Y	BAE	1	52	Female	0	96	1	7	6	10	8	3	2
34	Mr. S	BAE	1	38	Male	1	334	2	4	5	4	5	0	0
35	Mrs. F	BAE	1	59	Female	0	273	3	5	3	6	4	1	1
36	Mrs. L	BAE	1	61	Female	0	180	3	9	8	10	8	1	0
37	Mrs. L	BAE	1	56	Female	0	272	10	6	4	8	5	2	1
38	Mrs. S	BAE	1	53	Female	0	303	3	6	6	7	8	1	2
39	Mrs. S	BAE	1	75	Female	0	139	26	3	3	6	6	3	3
40	Mrs. H	BAE	1	60	Female	0	137	3	8	7	8	7	0	0
41	Mr. R	BAE	1	61	Male	1	190	4	7	5	9	8	2	3
42	Mrs. D	BAE	1	57	Female	0	134	8	4	5	4	6	0	1
43	Mrs. D	BAE	1	60	Female	0	136	2	6	5	8	8	2	3

44	Mrs. T	BAE	1	54	Female	0	279	8	5	5	7	7	2	2
45	Mrs. N	BAE	1	46	Female	0	202	6	8	5	10	9	2	4
46	Mrs. Y	BAE	1	42	Female	0	263	7	6	3	7	4	1	1
47	Mrs. J	BAE	1	72	Female	0	274	11	6	4	9	6	3	2
48	Mrs. N	BAE	1	38	Female	0	222	9	6	5	7	7	1	2
49	Mrs. T	BAE	1	69	Female	0	363	20	2	2	2	2	0	0
50	Mrs. C	BAE	1	28	Female	0	236	6	5	5	6	5	1	0
51	Mrs. J	BAE	1	72	Female	0	265	26	5	3	7	6	2	3
52	Mrs. R	BAE	1	27	Female	0	207	5	7	8	8	9	1	1
53	Mrs. N	BAE	1	72	Female	0	213	21	5	4	5	5	0	1
54	Mrs. Y	BAE	1	56	Female	0	259	19	3	4	5	4	2	0
55	Mrs. N	BAE	1	41	Female	0	272	18	4	3	6	3	2	0
56	Mrs. B	BAE	1	32	Female	0	546	4	5	4	7	7	2	3
57	Mrs. S	BAE	1	43	Female	0	320	17	3	5	4	6	1	1
58	Mrs. S	BAE	1	45	Female	0	245	19	4	6	5	8	1	2
59	Mrs. N	BAE	1	60	Female	0	367	22	4	6	5	7	1	1
60	Mr. P	BAE	1	45	Male	1	198	6	6	6	8	7	2	1

Appendix 9 SPSS Output Analysis Results

A. Overview of Participant Characteristics

1. Foot Reflection Board Group

Jenis Kelamin Responden

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Perempuan	26	86.7	86.7	86.7
	Laki-laki	4	13.3	13.3	100.0
	Total	30	100.0	100.0	

Descriptives

Kelompok Penelitian		Statistic		Std. Error
Usia Responden	Foot Reflection Board	Mean		57.57
		95% Confidence Interval for Mean	Lower Bound	53.35
			Upper Bound	61.79
		5% Trimmed Mean		58.28
		Median		60.50
		Variance		127.633
		Std. Deviation		11.297
		Minimum		27
		Maximum		74
		Range		47
		Interquartile Range		13
		Skewness		-1.077
				.427
		Kurtosis		1.230
				.833
Kadar Gula Darah Responden	Foot Reflection Board	Mean		259.63
		95% Confidence Interval for Mean	Lower Bound	231.50
			Upper Bound	287.77
		5% Trimmed Mean		255.74
		Median		238.00
		Variance		5676.447
		Std. Deviation		75.342
		Minimum		134
		Maximum		462
		Range		328
		Interquartile Range		81
		Skewness		1.084
				.427
		Kurtosis		1.116
				.833
Lama menyandang DM	Foot Reflection Board	Mean		11.57
		95% Confidence Interval for Mean	Lower Bound	8.62
			Upper Bound	14.51
		5% Trimmed Mean		11.07
		Median		11.50
		Variance		62.323
		Std. Deviation		7.894
		Minimum		1
		Maximum		34
		Range		33
		Interquartile Range		12
		Skewness		.833
				.427
		Kurtosis		.637
				.833

2. Buerger Allen Exercise Group

Jenis Kelamin Responden

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Perempuan	27	90.0	90.0	90.0
	Laki-laki	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

Descriptives

	Kelompok Penelitian			Statistic	Std. Error
Usia Responden	Buerger Allen Exercise	Mean		53.43	2.437
		95% Confidence Interval for Mean	Lower Bound	48.45	
			Upper Bound	58.42	
		5% Trimmed Mean		53.74	
		Median		56.00	
		Variance		178.185	
		Std. Deviation		13.349	
		Minimum		27	
		Maximum		75	
		Range		48	
		Interquartile Range		19	
		Skewness		-.318	.427
		Kurtosis		-.698	.833
Kadar Gula Darah Responden	Buerger Allen Exercise	Mean		244.50	16.246
		95% Confidence Interval for Mean	Lower Bound	211.27	
			Upper Bound	277.73	
		5% Trimmed Mean		238.61	
		Median		240.50	
		Variance		7917.569	
		Std. Deviation		88.981	
		Minimum		96	
		Maximum		546	
		Range		450	
		Interquartile Range		88	
		Skewness		1.212	.427
		Kurtosis		3.351	.833
Lama menyandang DM	Buerger Allen Exercise	Mean		10.03	1.432
		95% Confidence Interval for Mean	Lower Bound	7.10	
			Upper Bound	12.96	
		5% Trimmed Mean		9.63	
		Median		7.50	
		Variance		61.551	
		Std. Deviation		7.845	
		Minimum		1	
		Maximum		26	
		Range		25	
		Interquartile Range		15	
		Skewness		.762	.427
		Kurtosis		-.792	.833

3. Chi-Square Test of Homogeneity

Chi-Square Tests_Jenis Kelamin

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.162 ^a	1	.688		
Continuity Correction ^b	.000	1	1.000		
Likelihood Ratio	.162	1	.687		
Fisher's Exact Test				1.000	.500
Linear-by-Linear Association	.159	1	.690		
N of Valid Cases	60				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.50.

b. Computed only for a 2x2 table

4. Mann-Whitney U Test for Baseline Equivalence

Test Statistics^a

	Usia Responden	Kadar Gula Darah Responden	Lama menyandang DM
Mann-Whitney U	360.500	406.000	395.000
Wilcoxon W	825.500	871.000	860.000
Z	-1.324	-.651	-.814
Asymp. Sig. (2-tailed)	.185	.515	.415

a. Grouping Variable: Kelompok Penelitian

5. Normality Test for Participant Characteristics

Tests of Normality

	Kelompok Penelitian	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Usia Responden	Foot Reflection Board	.144	30	.112	.916	30	.021
Kadar Gula Darah Responden	Foot Reflection Board	.182	30	.012	.911	30	.016
Lama menyandang DM	Foot Reflection Board	.119	30	.200*	.938	30	.078

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Tests of Normality

	Kelompok Penelitian	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Usia Responden	Buerger Allen Exercise	.110	30	.200*	.961	30	.324
Kadar Gula Darah Responden	Buerger Allen Exercise	.149	30	.087	.919	30	.026
Lama menyandang DM	Buerger Allen Exercise	.169	30	.029	.871	30	.002

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

B. Overview of Average Foot Sensitivity Before and After Intervention in the Foot Reflexology Using a Foot Reflection Board Group and the Buerger Allen Exercise Group

1. Foot Reflexology using a Foot Reflection Board Group and Buerger Allen Exercise Group

Descriptives				Statistic	Std. Error
Kelompok Penelitian					
Pre test skor sensitivitas kaki kanan	Foot Reflection Board	Mean		5.07	.368
		95% Confidence Interval for Mean	Lower Bound	4.31	
			Upper Bound	5.82	
		5% Trimmed Mean		5.02	
		Median		5.00	
		Variance		4.064	
		Std. Deviation		2.016	
		Minimum		2	
		Maximum		9	
		Range		7	
		Interquartile Range		3	
		Skewness		.444	.427
		Kurtosis		-.583	.833
	Buerger Allen Exercise	Mean		5.27	.307
		95% Confidence Interval for Mean	Lower Bound	4.64	
			Upper Bound	5.89	
		5% Trimmed Mean		5.24	
		Median		5.00	
		Variance		2.823	
		Std. Deviation		1.680	
		Minimum		2	
		Maximum		9	
		Range		7	
		Interquartile Range		2	
		Skewness		.155	.427
		Kurtosis		-.316	.833
Pre test skor sensitivitas kaki kiri	Foot Reflection Board	Mean		4.77	.341
		95% Confidence Interval for Mean	Lower Bound	4.07	
			Upper Bound	5.46	
		5% Trimmed Mean		4.67	
		Median		4.00	
		Variance		3.495	
		Std. Deviation		1.870	
		Minimum		2	
		Maximum		9	
		Range		7	
		Interquartile Range		3	
		Skewness		.974	.427
		Kurtosis		.213	.833
	Buerger Allen Exercise	Mean		4.90	.285
		95% Confidence Interval for Mean	Lower Bound	4.32	
			Upper Bound	5.48	
		5% Trimmed Mean		4.87	
		Median		5.00	
		Variance		2.438	
		Std. Deviation		1.561	
		Minimum		2	
		Maximum		8	
		Range		6	
		Interquartile Range		2	
		Skewness		.410	.427
		Kurtosis		-.171	.833

Post test skor sensitivitas kaki kanan	Foot Reflection Board	Mean		7.27	.374
		95% Confidence Interval for Mean	Lower Bound	6.50	
			Upper Bound	8.03	
		5% Trimmed Mean		7.39	
		Median		7.00	
		Variance		4.202	
		Std. Deviation		2.050	
		Minimum		2	
		Maximum		10	
		Range		8	
		Interquartile Range		3	
		Skewness		-.669	.427
		Kurtosis		.435	.833
	Buerger Allen Exercise	Mean		6.70	.362
		95% Confidence Interval for Mean	Lower Bound	5.96	
			Upper Bound	7.44	
		5% Trimmed Mean		6.74	
		Median		7.00	
		Variance		3.941	
		Std. Deviation		1.985	
		Minimum		2	
		Maximum		10	
		Range		8	
		Interquartile Range		3	
		Skewness		-.205	.427
		Kurtosis		-.282	.833
Post test skor sensitivitas kaki kiri	Foot Reflection Board	Mean		6.90	.350
		95% Confidence Interval for Mean	Lower Bound	6.18	
			Upper Bound	7.62	
		5% Trimmed Mean		6.93	
		Median		7.00	
		Variance		3.679	
		Std. Deviation		1.918	
		Minimum		3	
		Maximum		10	
		Range		7	
		Interquartile Range		4	
		Skewness		-.225	.427
		Kurtosis		-.820	.833
	Buerger Allen Exercise	Mean		6.37	.341
		95% Confidence Interval for Mean	Lower Bound	5.67	
			Upper Bound	7.06	
		5% Trimmed Mean		6.41	
		Median		6.50	
		Variance		3.482	
		Std. Deviation		1.866	
		Minimum		2	
		Maximum		10	
		Range		8	
		Interquartile Range		3	
		Skewness		-.339	.427
		Kurtosis		-.138	.833

2. Normality Test

Tests of Normality

	Kelompok Penelitian	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pre test skor sensitivitas kaki kanan	Foot Reflection Board	.168	30	.030	.930	30	.050
	Buerger Allen Exercise	.135	30	.168	.964	30	.397
Pre test skor sensitivitas kaki kiri	Foot Reflection Board	.226	30	.000	.882	30	.003
	Buerger Allen Exercise	.174	30	.020	.935	30	.068
Post test skor sensitivitas kaki kanan	Foot Reflection Board	.148	30	.091	.927	30	.041
	Buerger Allen Exercise	.127	30	.200 [*]	.962	30	.351
Post test skor sensitivitas kaki kiri	Foot Reflection Board	.154	30	.067	.947	30	.141
	Buerger Allen Exercise	.133	30	.187	.969	30	.521

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

3. Homogeneity Test

a. Right Foot Pre-test

Group Statistics

	Kelompok Penelitian	N	Mean	Std. Deviation	Std. Error Mean
Pre test skor sensitivitas kaki kanan	Foot Reflection Board	30	5.07	2.016	.368
	Buerger Allen Exercise	30	5.27	1.680	.307

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Pre test skor sensitivitas kaki kanan	Equal variances assumed	1.508	.224	-.417	58	.678	-.200	.479	-1.159 .759
	Equal variances not assumed			-.417	56.175	.678	-.200	.479	-1.160 .760

b. Left Foot Pre-test

Ranks

	Kelompok Penelitian	N	Mean Rank	Sum of Ranks
Pre test skor sensitivitas kaki kiri	Foot Reflection Board	30	28.92	867.50
	Buerger Allen Exercise	30	32.08	962.50
	Total	60		

Test Statistics^a

Pre test skor sensitivitas kaki kiri	
Mann-Whitney U	402.500
Wilcoxon W	867.500
Z	-.716
Asymp. Sig. (2-tailed)	.474

a. Grouping Variable: Kelompok Penelitian

C. Average Differences in Foot Sensitivity Before and After Intervention in the Foot Reflexology Using a Foot Reflection Board Group and the Buerger Allen Exercise Group

1. Foot Reflexology using a Foot Reflection Board

a. Sensitivity of the right foot

Ranks				
		N	Mean Rank	Sum of Ranks
Post test skor sensitivitas kaki kanan – Pre test skor sensitivitas kaki kanan	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	26 ^b	13.50	351.00
	Ties	4 ^c		
	Total	30		

a. Post test skor sensitivitas kaki kanan < Pre test skor sensitivitas kaki kanan

b. Post test skor sensitivitas kaki kanan > Pre test skor sensitivitas kaki kanan

c. Post test skor sensitivitas kaki kanan = Pre test skor sensitivitas kaki kanan

Test Statistics^a

	Post test skor sensitivitas kaki kanan – Pre test skor sensitivitas kaki kanan
Z	-4.523 ^b
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

b. Sensitivity of the left foot

Ranks				
		N	Mean Rank	Sum of Ranks
Post test skor sensitivitas kaki kiri – Pre test skor sensitivitas kaki kiri	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	25 ^b	13.00	325.00
	Ties	5 ^c		
	Total	30		

a. Post test skor sensitivitas kaki kiri < Pre test skor sensitivitas kaki kiri

b. Post test skor sensitivitas kaki kiri > Pre test skor sensitivitas kaki kiri

c. Post test skor sensitivitas kaki kiri = Pre test skor sensitivitas kaki kiri

Test Statistics^a

Post test skor sensitivitas kaki kiri – Pre test skor sensitivitas kaki kiri

Z	-4.436 ^b
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

2. Buerger Allen Exercise

a. Sensitivity of the right foot

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower Upper			
Pair 1	Post test skor sensitivitas kaki kanan – Pre test skor sensitivitas kaki kanan	1.433	.898	.164	1.098 1.769	8.746	29	.000

b. Sensitivity of the left foot

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower Upper			
Pair 1	Post test skor sensitivitas kaki kiri – Pre test skor sensitivitas kaki kiri	1.467	1.137	.208	1.042 1.891	7.068	29	.000

3. Difference between Foot Reflexology using a Foot Reflection Board and Buerger Allen Exercise Group on Foot Sensitivity in People with DM

Descriptives				Statistic	Std. Error
Kelompok Penelitian					
Selisih skor kaki kanan	Foot Reflection Board	Mean		2.20	.222
		95% Confidence Interval for Mean	Lower Bound	1.75	
			Upper Bound	2.65	
		5% Trimmed Mean		2.22	
		Median		2.50	
		Variance		1.476	
		Std. Deviation		1.215	
		Minimum		0	
		Maximum		4	
		Range		4	
		Interquartile Range		2	
		Skewness		-.534	.427
		Kurtosis		-.642	.833
	Buerger Allen Exercise	Mean		1.43	.164
		95% Confidence Interval for Mean	Lower Bound	1.10	
			Upper Bound	1.77	
		5% Trimmed Mean		1.43	
		Median		1.50	
		Variance		.806	
		Std. Deviation		.898	
		Minimum		0	
		Maximum		3	
		Range		3	
Selisih skor kaki kiri	Foot Reflection Board	Mean		2.13	.229
		95% Confidence Interval for Mean	Lower Bound	1.67	
			Upper Bound	2.60	
		5% Trimmed Mean		2.15	
		Median		2.00	
		Variance		1.568	
		Std. Deviation		1.252	
		Minimum		0	
		Maximum		4	
		Range		4	
		Interquartile Range		1	
		Skewness		-.381	.427
		Kurtosis		-.577	.833
	Buerger Allen Exercise	Mean		1.47	.208
		95% Confidence Interval for Mean	Lower Bound	1.04	
			Upper Bound	1.89	
		5% Trimmed Mean		1.43	
		Median		1.00	
		Variance		1.292	
		Std. Deviation		1.137	
		Minimum		0	
		Maximum		4	
		Range		4	

Tests of Normality

	Kelompok Penelitian	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Selisih skor kaki kanan	Foot Reflection Board	.245	30	.000	.881	30	.003
	Buerger Allen Exercise	.236	30	.000	.877	30	.002
Selisih skor kaki kiri	Foot Reflection Board	.224	30	.000	.888	30	.004
	Buerger Allen Exercise	.193	30	.006	.902	30	.009

a. Lilliefors Significance Correction

a. Difference in the sensitivity score of the right foot

Ranks

	Kelompok Penelitian	N	Mean Rank	Sum of Ranks
Selisih skor kaki kanan	Foot Reflection Board	30	36.47	1094.00
	Buerger Allen Exercise	30	24.53	736.00
	Total	60		

Test Statistics^a

	Selisih skor kaki kanan
Mann-Whitney U	271.000
Wilcoxon W	736.000
Z	-2.734
Asymp. Sig. (2-tailed)	.006

a. Grouping Variable: Kelompok Penelitian

b. Difference in the sensitivity score of the left foot

Ranks

	Kelompok Penelitian	N	Mean Rank	Sum of Ranks
Selisih skor kaki kiri	Foot Reflection Board	30	35.18	1055.50
	Buerger Allen Exercise	30	25.82	774.50
	Total	60		

Test Statistics^a

	Selisih skor kaki kiri
Mann-Whitney U	309.500
Wilcoxon W	774.500
Z	-2.138
Asymp. Sig. (2-tailed)	.032

a. Grouping Variable: Kelompok Penelitian

Appendix 10 Research documentation

Foot Reflexology using a Foot Reflection Board Group

- Foot sensitivity check with monofilament test



- Implementation of Foot Reflexology using a Foot Reflection Board





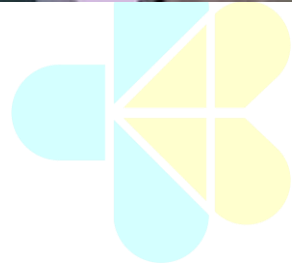
Buerger Allen Exercise Group

- Foot sensitivity check with monofilament test



- Implementation of Buerger Allen Exercise therapy





Kemenkes
Poltekkes Bengkulu

Appendix 11 Pre-research cover letter to the Sawah Lebar Health Center of Bengkulu City

	Kemenkes Poltekkes Bengkulu	Kementerian Kesehatan Direktorat Jenderal Sumber Daya Manusia Kesehatan Politeknik Kesehatan Bengkulu Jalan Indragiri No.3 Padang Harapan Bengkulu 38225 (0736) 341212 https://www.poltekkesbengkulu.ac.id
		08 Agustus 2025
Nomor :	: PP.06.02/F.XXIII.1/ 634/2025	
Penihal	: Izin Pra Penelitian	
Yth.		
Kepala Puskesmas Sawah Lebar Kota Bengkulu		
di		
Tempat		
Sehubungan penyusunan tugas akhir dalam bentuk Skripsi Mahasiswa Program Studi Keperawatan Program Sarjana Terapan Jurusan Keperawatan Politeknik Kesehatan Kemenkes Bengkulu Tahun Akademik 2025/2026, dengan ini mohon Bapak/Ibu dapat memberikan izin pengambilan data, Pra Penelitian pada mahasiswa dibawah ini :		
Nama Mahasiswa	: Miftah Kamilia Fadhilah	
Nim	: P01720322025	
Tempat	: Puskesmas Sawah Lebar Kota Bengkulu	
Judul	: Pengaruh Foot Reflection Board Dan Towel Toe Curl Terhadap Sensitivitas Kaki Pada Penderita Diabetes Mellitus	
No Handphone	: 082289100587	
Demikianlah, atas perhatian dan kerjasamanya kami mengucapkan terimakasih.		
 Wakil Direktur I Bidang Akademik Septiyanti, S.Kep, Ners, M.Pd		
		

Appendix 12 Pre-research cover letter to the Bengkulu City Health Office



Kementerian Kesehatan
Direktorat Jenderal
Sumber Daya Manusia Kesehatan
Politeknik Kesehatan Bengkulu
Jalan Indragiri No.3 Padang Harapan
Bengkulu 38225
(0736) 341212
<https://www.poltekkesbengkulu.ac.id>

08 Agustus 2025

Nomor : PP.06.02/F.XXIII.1/6313 /2025
Perihal : Izin Pra Penelitian

Yth.
Kepala Dinas Kesehatan Kota Bengkulu
di
Tempat

Sehubungan penyusunan tugas akhir dalam bentuk Skripsi Mahasiswa Program Studi Keperawatan Program Sarjana Terapan Jurusan Keperawatan Politeknik Kesehatan Kemenkes Bengkulu Tahun Akademik 2025/2026, dengan ini mohon Bapak/Ibu dapat memberikan izin pengambilan data, Pra Penelitian pada mahasiswa dibawah ini :

Nama Mahasiswa : Miftah Kamilia Fadhilah
Nim : P01720322025
Tempat : Puskesmas Sawah Lebar Kota Bengkulu
Judul : Pengaruh Foot Reflection Board Dan Towel Toe Curl Terhadap Sensitivitas Kaki Pada Penderita Diabetes Mellitus
No Handphone : 082289100587

Demikianlah, atas perhatian dan kerjasamanya kami mengucapkan terimakasih.

Wakil Direktur I Bidang Akademik

Septiyanti, S.Kep, Ners, M.Pd



Appendix 13 Pre-research recommendation letter of the Bengkulu City Health Office



PEMERINTAH KOTA BENGKULU DINAS KESEHATAN

Jl. Letjen Basuki Rahmat No. 8 Kel. Belakang Pondok Kec. Ratu Samban
Kota Bengkulu Telp. 085216000810 Email dinkeskotabengkulu1@gmail.com
www.dinkes.bengkulkota.go.id Kode Pos 34223

REKOMENDASI

Nomor : 000.9.2/1798 /D.Kes/2025

Dasar Surat Wakil Direktur I Bidang Akademik Poltekkes Kemenkes Bengkulu Nomor: PP.06.02/F.XXIII.1/6313/2025 Tanggal 08 Agustus 2025 Perihal : Permohonan Izin Pengambilan data untuk penyusunan tugas akhir proposal skripsi atas nama

Nama : Miftah Kamilia Fadhilah
NPM : P01720322025
Program Studi : Keperawatan
Judul/Data : Pengaruh foot reflection board dan towel toe curl terhadap sensitivitas kaki pada penderita diabetes melitus
Tempat penelitian : 1. Dinas Kesehatan Kota Bengkulu
2. Puskesmas Sawah Lebar Kota Bengkulu
Lama Kegiatan : 14 Agustus 2025 s/d. 25 Agustus 2025

Pada prinsipnya Dinas Kesehatan Kota Bengkulu tidak berkeberatan diadakan pra penelitian/kegiatan yang dimaksud dengan catatan ketentuan :

- Tidak dibenarkan mengadakan kegiatan yang tidak sesuai dengan penelitian yang dimaksud.
- Harap mentaati semua ketentuan yang berlaku serta mengindahkan adat istiadat setempat.
- Apabila masa berlaku Rekomendasi Pra Penelitian ini sudah berakhir, sedangkan pelaksanaan belum selesai maka yang bersangkutan harus mengajukan surat perpanjangan Rekomendasi Pra Penelitian.
- Setelah selesai mengadakan kegiatan diatas agar melapor kepada Kepala Dinas Kesehatan Kota Bengkulu (tembusan).
- Surat Rekomendasi Pra Penelitian ini akan dicabut kembali dan dinyatakan tidak berlaku apabila ternyata pemegang surat ini tidak mentaati ketentuan seperti tersebut diatas.

Demikianlah Rekomendasi ini dikeluarkan untuk dapat dipergunakan sebagaimana mestinya.

Bengkulu, Agustus 2025

Kepala Dinas Kesehatan

Kota Bengkulu



Joni Haryadi Thabrani, SKM, MM

Pembina Tk.I - IV/b

NIP.197406081994021002

Tembusan :

- 1.Yth.Sdr.Ka.UPTD. Puskesmas Sawah Lebar Kota Bengkulu
- 2.Yang Bersangkutan

Appendix 14 Pre-research letter of the Sawah Lebar Health Center of Bengkulu City

 PEMERINTAH KOTA BENGKULU DINAS KESEHATAN UPTD PUSKESMAS SAWAH LEBAR Jl. Sepakat RT 18 Kelurahan Sawah Lebar Baru Telp. (0736) 283... Email : pkmsawahlebar@gmail.com 	
LEMBAR DISPOSISI	
Surat dari : <i>Dinas Kesehatan Kota</i> No. Surat : <i>000.9.2/1798/024/2025</i> Tgl. Surat : <i>Agustus 2025</i>	Diterima Tgl : <i>15 Agustus 2025</i> No. Agenda : Sifat : ☐ Sangat segera ☒ Segera ☐ Rahasia
Perihal : <i>Rekomendasi izin pengembalian data Dr. Miftah Rasyid Fadhiq Mbi. Kiprandaan Jaituklas Rimbun</i>	
Diteruskan kepada sdr : ☐ <i>Dr. Miftah Rasyid Fadhiq Mbi. Kiprandaan Jaituklas Rimbun</i> ☐ ☐ Dan seterusnya	Dengan hormat harap : ☐ Tanggapan dan saran ☐ Proses lebih lanjut ☐ Koordinasi / Konfirmasi
Catatan : <i>Diberikan dan untuk proses pengembalian data pasien Dr. Miftah Rasyid Fadhiq Mbi. Kiprandaan Jaituklas Rimbun ke UPTD Puskesmas Sawah Lebar</i> 	
Kepala UPTD Puskesmas Sawah Lebar Kota Bengkulu dr. Hj. Fatimah, ST Nip.197309162008032001	

Appendix 15 Certificate of feasibility of research ethics



Kementerian Kesehatan
Poltekkes Bengkulu

Jalan Indragiri No. 3 Padang Harapan
Bengkulu 38225
(0736) 341212
<https://poltekkesbengkulu.ac.id>

KETERANGAN LAYAK ETIK
DESCRIPTION OF ETHICAL EXEMPTION
"ETHICAL EXEMPTION"

No.KEPK.BKL/235/03/2026

Protokol penelitian versi 1 yang diusulkan oleh :
The research protocol proposed by

Peneliti utama : Miftah Kamilia Fadhilah
Principal In Investigator

Nama Institusi : Program Studi Sarjana Terapan
Keperawatan, Poltekkes Kemenkes
Bengkulu

Name of the Institution

Dengan judul:
Title

"Efektivitas Foot Reflexology dengan Alat Foot Reflexion Board dan Buerger Allen Exercise Terhadap Sensitivitas Kaki pada Penyandang Diabetes Melitus di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu Tahun 2026"

"The Effectiveness of Foot Reflexology Using a Foot Reflexion Board and Buerger Allen Exercise on Foot Sensitivity Among Patients with Diabetes Mellitus in the Sawah Lebar Public Health Center Working Area Bengkulu City in 2026"

Dinyatakan layak etik sesuai 7 (tujuh) Standar WHO 2011, yaitu 1) Nilai Sosial, 2) Nilai Ilmiah, 3) Pemerataan Beban dan Manfaat, 4) Risiko, 5) Bujukan/Eksploitasi, 6) Kerahasiaan dan Privacy, dan 7) Persetujuan Setelah Penjelasan, yang merujuk pada Pedoman CIOMS 2016. Hal ini seperti yang ditunjukkan oleh terpenuhinya indikator setiap standar.

Declared to be ethically appropriate in accordance to 7 (seven) WHO 2011 Standards, 1) Social Values, 2) Scientific Values, 3) Equitable Assessment and Benefits, 4) Risks, 5) Persuasion/Exploitation, 6) Confidentiality and Privacy, and 7) Informed Consent, referring to the 2016 CIOMS Guidelines. This is as indicated by the fulfillment of the indicators of each standard.

Pernyataan Laik Etik ini berlaku selama kurun waktu tanggal 10 Maret 2026 sampai dengan tanggal 10 Maret 2027.

This declaration of ethics applies during the period March 10, 2026 until March 10, 2027.



March 10, 2026
Chairperson,

apt. Zamharira Muslim, M.Farm

Appendix 16 Letter of introduction for research permit to the Bengkulu City KESBANGPOL Office

	Kemenkes Poltekkes Bengkulu	Kementerian Kesehatan Direktorat Jenderal Sumber Daya Manusia Kesehatan Politeknik Kesehatan Bengkulu Jl. Jalan Indragiri No.3 Padang Harapan Bengkulu 38225 (0736) 341212 https://www.poltekkesbengkulu.ac.id
		11 Maret 2026
Nomor :	: PP. 01.01/F.XXIII.1/1593/2026	
Perihal :	: Izin Penelitian	
Yth,		
Kepala Badan Kesatuan Bangsa dan Politik Kota Bengkulu		
di		
Tempat		
Sehubungan penyusunan tugas akhir mahasiswa dalam bentuk Skripsi Program Studi Keperawatan Program Sarjana Terapan Jurusan Keperawatan Politeknik Kesehatan Kemenkes Bengkulu Tahun Akademik 2025/2026 , dengan ini kami mohon Bapak/Ibu dapat memberikan izin pengambilan data untuk penelitian kepada:		
Nama :	: Miftah Kamilia Fadhliah	
NIM :	: P01720322025	
Tempat Penelitian :	: Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu	
Waktu Penelitian :	: 30 Maret 2026 s/d 01 Juni 2026	
Judul :	: Efektivitas Foot Reflexology Dengan Alat Foot Reflection Board Dan Buerger Allen Exercise Terhadap Sensitivitas Kaki Pada Penyandang Diabetes Melitus Di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu Tahun 2026	
No Handphone :	: 082289100587	
Demikianlah, atas perhatian dan kesediaan Bapak/Ibu diucapkan terimakasih.		
a.n. Direktur Poltekkes Kemenkes Bengkulu		
Wakil Direktur I Bidang Akademik		
		
Septiyanti, S.Kep, Ners, M.Pd		
		

Appendix 17 Cover letter for research permit to the Bengkulu City Health Office

	Kemenkes Poltekkes Bengkulu	Kementerian Kesehatan Direktorat Jenderal Sumber Daya Manusia Kesehatan Politeknik Kesehatan Bengkulu Jalan Indragiri No.3 Padang Harapan Bengkulu 38225 ☎ (0736) 341212 🌐 https://www.poltekkesbengkulu.ac.id	11 Maret 2026
Nomor :	: PP. 01.01/F.XXIII.1/1534/2026		
Perihal :	: Izin Penelitian		
Yth.			
Kepala Dinas Kesehatan Kota Bengkulu			
di			
Tempat			
Sehubungan penyusunan tugas akhir mahasiswa dalam bentuk Skripsi Program Studi Keperawatan Program Sarjana Terapan Jurusan Keperawatan Politeknik Kesehatan Kemenkes Bengkulu Tahun Akademik 2025/2026 , dengan ini kami mohon Bapak/Ibu dapat memberikan izin pengambilan data untuk penelitian kepada:			
Nama :	: Miftah Kamilia Fadhliah		
NIM :	: P01720322025		
Tempat Penelitian :	: Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu		
Waktu Penelitian :	: 30 Maret 2026 s/d 01 Juni 2026		
Judul :	: Efektivitas Foot Reflexology Dengan Alat Foot Reflection Board Dan Buerger Allen Exercise Terhadap Sensitivitas Kaki Pada Penyandang Diabetes Melitus Di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu Tahun 2026		
No Handphone :	: 082289100587		
Demikianlah, atas perhatian dan kesediaan Bapak/Ibu diucapkan terimakasih.			
a.n. Direktur Poltekkes Kemenkes Bengkulu			
Wakil Direktur I Bidang Akademik			
			
Septiyarti, S.Kep, Ners, M.Pd			
			

Appendix 18 Letter of introduction for research permit to the Sawah Lebar Health Center, Bengkulu City

	Kemenkes Poltekkes Bengkulu	Kementerian Kesehatan Direktorat Jenderal Sumber Daya Manusia Kesehatan Politeknik Kesehatan Bengkulu Jalan Indragiri No.3 Padang Harapan Bengkulu 38225 (0736) 341212 https://www.poltekkesbengkulu.ac.id	11 Maret 2026
Nomor :	PP. 01.01/F.XXIII.1/ 2515/2026		
Perihal :	Izin Penelitian		
Yth, Kepala Puskesmas Sawah Lebar Kota Bengkulu di Tempat			
Sehubungan penyusunan tugas akhir mahasiswa dalam bentuk Skripsi Progam Studi Keperawatan Program Sarjana Terapan Jurusan Keperawatan Politeknik Kesehatan Kemenkes Bengkulu Tahun Akademik 2025/2026 , dengan ini kami mohon Bapak/Ibu dapat memberikan izin pengambilan data untuk penelitian kepada:			
Nama :	Miftah Kamila Fadhliah		
NIM :	P01720322025		
Tempat Penelitian :	Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu		
Waktu Penelitian :	30 Maret 2026 s/d 01 Juni 2026		
Judul :	Efektivitas Foot Reflexology Dengan Alat Foot Reflection Board Dan Buerger Allen Exercise Terhadap Sensitivitas Kaki Dada Penyandang Diabetes Melitus Di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu Tahun 2026		
No Handphone :	082289100587		
Demikianlah, atas perhatian dan kesediaan Bapak/Ibu diucapkan terimakasih.			
a.n. Direktur Poltekkes Kemenkes Bengkulu			
Wakil Direktur I Bidang Akademik			
			
Septiyanti, S.Kep, Ners, M.Pd			

Appendix 19 Letter of introduction for research permit to the Sawah Lebar Health Center, Bengkulu City



PEMERINTAH KOTA BENGKULU BADAN KESATUAN BANGSA DAN POLITIK

Alamat : Jl. Melur No.1 Kelurahan Nusa Indah
Email : bkesbangpolkotabengkulu@gmail.com

REKOMENDASI PENELITIAN

Nomor : 000.9.2/657/KESBANGPOL-REK/2026

Dasar : Peraturan Menteri Dalam Negeri Republik Indonesia Nomor 7 Tahun 2014 tentang Perubahan Atas Peraturan Menteri Dalam Negeri Republik Indonesia Nomor 64 Tahun 2011 tentang Pedoman Penerbitan Rekomendasi Penelitian
Memperhatikan : Surat dari Wakil Direktur I Bidang Akademik Poltekkes Kemenkes Bengkulu Nomor : PP.01.01/F.XXIII.1/2533/2026 Tanggal 11 Maret 2026 perihal Izin Penelitian

DENGAN INI MENYATAKAN BAHWA

Nama : Miftah Kamilia Fadhilah
NIM : P01720322025
Pekerjaan : Mahasiswa/i
Prodi/ Fakultas : Sarjana Terapan Keperawatan
Judul Penelitian : Efektivitas Foot Reflexology dengan Alat Foot Reflection Board dan Buerger Allen Exercise Terhadap Sensitivitas Kaki pada Penyandang Diabetes Melitus di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu Tahun 2026
Tempat Penelitian : Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu
Waktu Penelitian : 30 Maret 2026 s.d 01 Juni 2026
Penanggung Jawab : Wakil Direktur I Bidang Akademik Poltekkes Kemenkes Bengkulu

Dengan Ketentuan : 1 Tidak dibenarkan mengadakan kegiatan yang tidak sesuai dengan penelitian yang dimaksud.
2 Harus mentaati peraturan perundang-undangan yang berlaku serta mengindahkan adat istiadat setempat.
3 Apabila masa berlaku Rekomendasi Penelitian ini sudah berakhir, sedangkan pelaksanaan belum selesai maka yang bersangkutan harus mengajukan surat perpanjangan Rekomendasi Penelitian.
4 Surat Rekomendasi Penelitian ini akan dicabut kembali dan dinyatakan tidak berlaku apabila ternyata pemegang surat ini tidak mentaati ketentuan seperti tersebut diatas.

Demikianlah Rekomendasi Penelitian ini dikeluarkan untuk dapat dipergunakan sebagaimana mestinya.

Bengkulu, 30 Maret 2026

a.n. WALI KOTA BENGKULU

Kepala Badan Kesatuan Bangsa dan Politik Kota Bengkulu,



Saipul, S. Sos
Pembina Utama Muda, IV/c
NIP. 197207091992021001

Appendix 20 Research recommendation letter of the Bengkulu City Health Office

 **PEMERINTAH KOTA BENGKULU**
DINAS KESEHATAN
Jl. Letjen Basuki Rahmat No. 8 Kel. Belakang Pondok Kec. Ratu Samban Kota Bengkulu
Email dinkeskotabengkulu1@gmail.com / www.dinkes.bengkulkota.go.id Kode Pos 34223

REKOMENDASI
Nomor : 000.9.2 / 1098 / D.Kes/2026

Dasar Surat : 1. a.n. Direktur I Bidang Akademik Poltekkes Bengkulu Nomor : PP.01.01/F.XXIII.1/2534/2026 11 Maret 2026.
2. Kepala Badan Kesatuan Bangsa dan Politik Kota Bengkulu Nomor : 000.9.2/657/KESBANGPOL-REK/2026 Tanggal 30 Maret 2026 . Perihal : Izin Penelitian, atas nama :

Nama : Miftah Kamilia Fadhillah
NIM/NPM : P01720322025
Pekerjaan : Mahasiswa
Program Studi : Sarjana Terapan – Keperawatan
Judul Penelitian : Efektivitas Foot Reflexology dengan Alat Foot Reflection Board dan Buerger Allen Exercise Terhadap Sensitivitas Kaki pada Penyandang Diabetes Melitus di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu Tahun 2026

Tempat Penelitian : Puskesmas Sawah Lebar Kota Bengkulu
Lama Kegiatan : 30 Maret 2026 s/d 01 Juni 2026
No.HP / Email : 0822-8910-0587

Pada prinsipnya Dinas Kesehatan Kota Bengkulu tidak keberatan diadakan penelitian/kegiatan yang dimaksud dengan catatan ketentuan :

- Tidak dibenarkan mengadakan kegiatan yang tidak sesuai dengan penelitian yang dimaksud.
- Harap mentaati semua ketentuan yang berlaku serta mengindahkan adat istiadat setempat.
- Apabila masa berlaku Rekomendasi Penelitian ini sudah berakhir, sedangkan pelaksanaan belum selesai maka yang bersangkutan harus mengajukan surat perpanjangan Rekomendasi Penelitian.
- Setelah selesai mengadakan kegiatan diatas agar melapor kepada Kepala Dinas Kesehatan Kota Bengkulu (tembusan).
- Surat Rekomendasi Penelitian ini akan dicabut kembali dan dinyatakan tidak berlaku apabila ternyata pemegang surat ini tidak mentaati ketentuan seperti tersebut diatas.

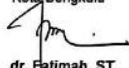
Demikianlah Rekomendasi ini dikeluarkan untuk dapat dipergunakan sebagaimana mestinya.

Bengkulu, Maret 2026
Plt. Kepala Dinas Kesehatan
Kota Bengkulu

Nelli Harwati, SKM, MM
Pembina - IV/a
NIP.19720419 199101 2 001

Tembusan :
1. Yth.Sdr. Ka. UPTD Puskesmas Sawah Lebar Kota Bengkulu
2. Yang Bersangkutan

Appendix 21 Research permit for the Bengkulu City Sawah Lebar Health Center

 PEMERINTAH KOTA BENGKULU DINAS KESEHATAN UPTD PUSKESMAS SAWAH LEBAR {Badan Layanan Umum Daerah} Jl. Sepakat RT 18 Kelurahan Sawah Lebar Baru Telp. (0736) 28360 Email : pkmsawahlebar@gmail.com		
LEMBAR DISPOSISI		
Surat dari : Dinkes Kota Bengkulu No. Surat : 000.9-2/098 / D.KES / 2016 Tgl. Surat : Maret 2016		Diterima Tgl : 2 April 2016 No. Agenda : 93 Sifat : ☐ Sangat segera ☒ Segera ☐ Rahasia
Perihal : Rekomendasi Rtn Penelitian mhs. Keperawatan Poltekkes Bengkulu dr. Miftah Kamilia Fadhillah		
Diteruskan kepada sdr : ☒ dr. Ricky Valenda ☐ ☐ Dan seterusnya		Dengan hormat harap : ☐ Tanggapan dan saran ☐ Proses lebih lanjut ☐ Koordinasi / Konfirmasi
Catatan : telah dibantu untuk penelitian kepada  dr. Ricky Valenda		Kepala UPTD Puskesmas Sawah Lebar Kota Bengkulu  dr. Fatimah ST Nip. 197309162008032001

Dipindai dengan CamScanner



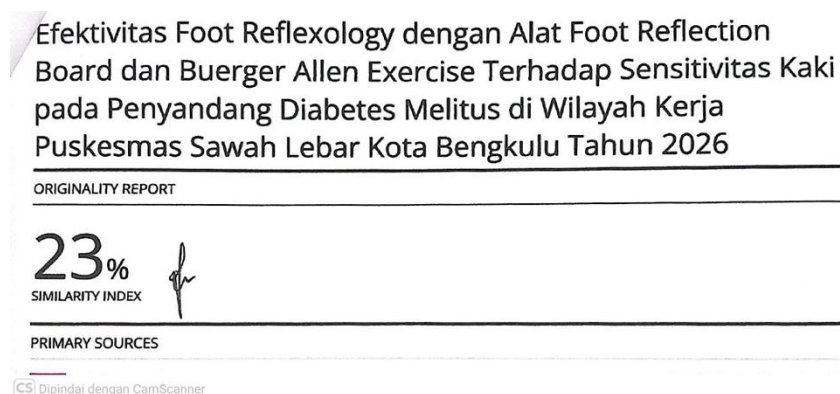
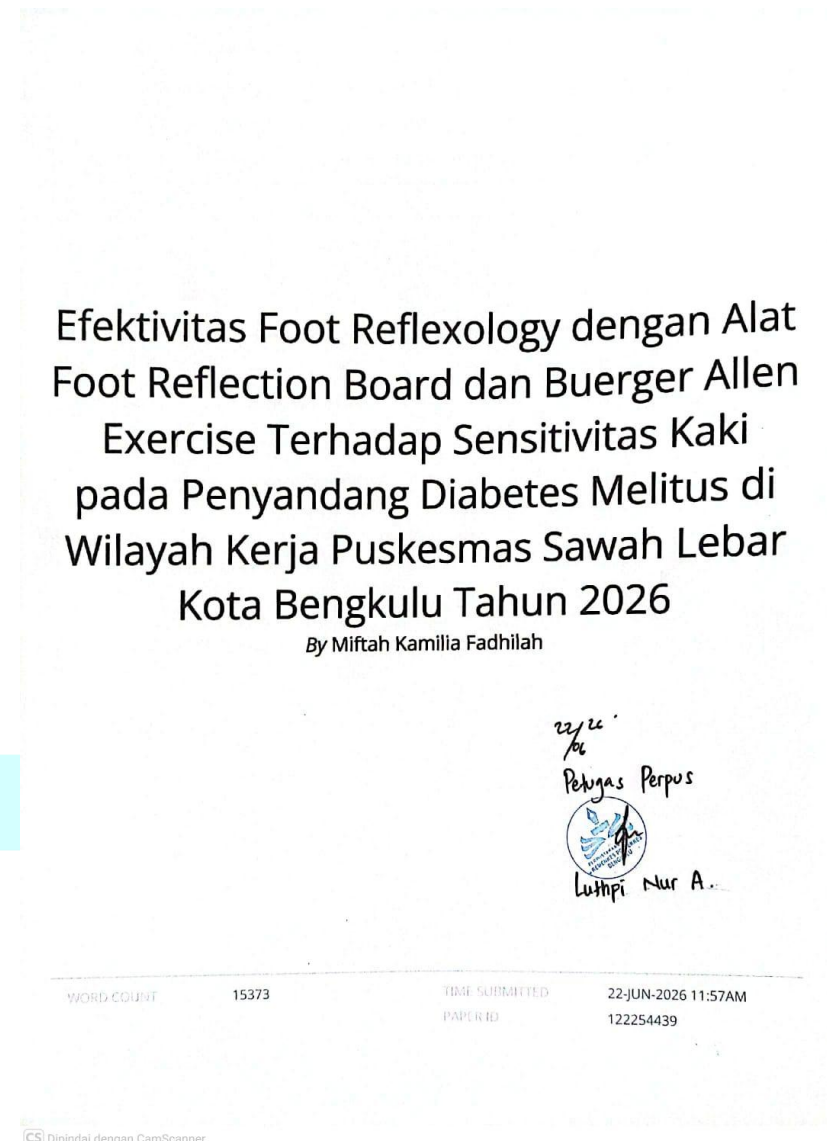
Appendix 22 Research completion of the Sawah Lebar Health Center in Bengkulu City

	PEMERINTAH KOTA BENGKULU DINAS KESEHATAN UPTD PUSKESMAS SAWAH LEBAR {Badan Layanan Umum Daerah}	
Alamat : Jln. Sepakat RT 18 Kelurahan Sawah Lebar Baru TELP. (0736) 28360 Email: pkmsawahlebar@gmail.com		
SURAT KETERANGAN Nomor : 445/17/PKM-SL/VI/2026		
Berdasarkan surat rekomendasi dari Dinas Kesehatan Kota Bengkulu Nomor: 000.9.2/1098/D.Kes/2026 tanggal Maret 2026 tentang: Rekomendasi izin penelitian Yang bertanda tangan dibawah ini Plt. Kepala UPTD Puskesmas Sawah Lebar Kota Bengkulu : Nama : Erna Yulista, S.Tr.Keb NIP : 198802152011012001 Pangkat/Gol. : Penata / III c Jabatan : Plt. Kepala UPTD Puskesmas Sawah Lebar Kota Bengkulu Dengan ini menerangkan : Nama : Miftah Kamilia Fadhilah NPM/ NIM : P01720322025 Program Studi : Sarjana Terapan Keperawatan/Pendidikan Profesi Ners Benar telah melaksanakan penelitian di UPTD Puskesmas Sawah Lebar Kota Bengkulu dari tanggal 30 Maret s/d 1 Juni 2026, dengan judul "Efektivitas Foot Reflexology Dengan Alat Foot Reflection Board Dan Buerger, Allen Exercise Terhadap Sensitivitas Kaki Pada Penyandang Diabetes Melitus Di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu Tahun 2026 " Demikianlah keterangan ini dibuat untuk dapat dipergunakan sebagai mana mestinya..		
Dikeluarkan di : Bengkulu Pada Tanggal : 18 Juni 2026 Plt. Kepala UPTD Puskesmas Sawah Lebar Kota Bengkulu  <u>Erna Yulista, S.Tr.Keb</u> NIP : 198802152011012001		

Tembusan :

1. Dinas Kesehatan Kota Bengkulu
2. Arsip

Appendix 23 Similarity check results



Appendix 24 Foot reflexology training certificate



LKP AMANAH JADID CENDEKIA
Izin Kursus No.: 421.9/Kep.0083/Disdik/2023

SURAT TANDA BELAJAR

No. 01.1061/KH.TSG/LKP.AJC/IV/2026

Diberikan Kepada:

Miftah Kamilia Fadhillah

Telah menyelesaikan Bimbingan Pelatihan Tematik "Efektivitas Foot Reflexology dengan Alat Foot Reflection Board dan Buerger Allen Exercise Terhadap Sensitivitas Kaki pada Penyandang Diabetes Melitus di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu Tahun 2026"

Cimahi, 26 April 2026


Lilis Yuniar, S.Pd, C.T.
Instruktur


8/3/26
Ida Sumiati
Direktur



Appendix 25 ACC sheets of research title

HALAMAN PERSETUJUAN JUDUL
SKRIPSI MAHASISWA PRODI SARJANA TERAPAN KEPERAWATAN JURUSAN
KEPERAWATAN POLTEKKES KEMENKES BENGKULU

Nama : Miftah Kamilia Fadhillah
Tempat, Tanggal Lahir : Sambirejo, 14 Februari 2005
Nomor Induk Mahasiswa : P01720322025
Judul Skripsi yang Diajukan : Efektivitas *Foot Reflection Board* Dengan *Buerger Allen Exercise* Terhadap Sensitivitas Kaki Pada Penyandang Diabetes Mellitus
Disetujui Pada Tanggal :

Bengkulu, 19 Agustus 2025

Pembimbing I

Pembimbing II



(Ns. Septiyanti, S.Kep., M.Pd)
NIP. 197409161997032001



(Widia Lestari S.Kep, M.Sc)
NIP. 198106052005012004

Mengetahui

Ketua Program Studi Sarjana Terapan Keperawatan
Jurusan Keperawatan Poltekkes Kemenkes Bengkulu



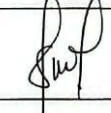
(Ns. Hendri Herivanto, M.Kep)
NIP. 198205152002121004

Appendix 26 Thesis guidance consul sheets

LEMBAR BIMBINGAN PROPOSAL & SKRIPSI

PEMBIMBING I : Ns. Septiyanti, S.Kep., M.Pd
MAHASISWA : Miftah Kamilia Fadhilah
NIM : P01720322025
JUDUL SKRIPSI : Efektivitas *Foot Reflection Board* Dengan *Buerger Allen Exercise*
 Terhadap Sensitivitas Kaki Pada Penyandang Diabetes Mellitus
 Di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu
 Tahun 2026

NO	HARI / TANGGAL	TOPIK	SARAN	PARAF PEMBIMBING
1.	Selasa / 29 Juli 2025	Konsul Judul	- Cari terapi untuk mengatasi seperti kesemutan, kebas, panas pada kaki - Cari masalah terkait penelitian yang diamati - Alasan mengenai pengambilan judul	
2.	Jumat / 08 Agustus 2025	Konsul Judul	- Pertimbangkan kembali terapi yang akan diambil - Referensi yang digunakan disesuaikan ada atau tidak yang menjelaskan tentang terapi yang akan digunakan	
3.	Selasa / 19 Agustus 2025	Konsul Judul	- ACC Judul - Perbanyak referensi judul - Lanjutkan ke BAB I	
4.	Selasa / 23 September 2025	Konsul BAB I	- Lanjutkan BAB II dan BAB III	
5.	Jum'at / 14 November 2025	Konsul BAB I, II, dan III	- Perhatikan penulisan - Tambahkan pada latar belakang data penyakit di tiap provinsi dari yang tertinggi hingga ke provinsi Bengkulu - Konsep teori diperbaiki, arah panah menunjukkan sebab akibat	

			- Perbaiki Definisi Operasional, tambahkan berapa lama terapi dilakukan - Hipotesis disesuaikan dengan judul penelitian	
6.	Kamis / 27 November 2025	Konsul BAB I, II, III dan IV	- Perhatikan kriteria inklusi dan eksklusi - Variabel perancu pada kerangka konsep perbaiki arah panah : mempengaruhi selama proses penelitian - Lengkapi lampiran	
7.	Selasa / 02 Desember 2025	Konsul BAB I, II, III dan IV	- ACC Proposal dan lanjut ujian proposal	
8.	Senin / 6 April 2026	Konfirmasi pelaksanaan terapi penelitian	- Lanjutkan sesuai dengan prosedur	
9.	Selasa / 9 Juni 2026	Konsultasi Hasil olah data SPSS	- Konsultasi hasil olah data SPSS dan data master - Penyusunan olah data sesuaikan dengan tujuan khusus dan definisi operasional - Pastikan data yang di-input benar dan cek kembali jika ada kekeliruan data - Lanjutkan untuk menulis BAB 5	
10.	Kamis / 11 Juni 2026	Konsultasi BAB 5 Hasil Penelitian	- Isi BAB 5 sesuaikan dengan Tujuan Khusus - Perbaiki pembacaan hasil interpretasi tabel	
11.	Jumat / 12 Juni 2026	Konsultasi revisi BAB 5	- Perhatikan typo penulisan pada bagian isi tabel dan interpretasi, baik itu hasil analisis univariat dan bivariat - Data yang di interpretasikan hanya data yang paling dominan saja	
12.	Senin / 15 Juni 2026	Konsultasi BAB 6 dan 7 Pembahasan – penutup	- Tambahkan Beberapa jurnal yang relevan dan sesuaikan dengan penjelasan BAB 2	

			- Isi Kesimpulan dan saran sesuaikan dengan tujuan khusus dan manfaat penelitian	
13.	Semin / 15 Juni 2026	Pengecekan Kembali BAB 1 – BAB 7 dan melengkapi skripsi untuk lanjut sidang seminar hasil	- ACC ujian seminar hasil - Siapkan PPT untuk ujian seminar hasil skripsi - Pastikan Turnitin skripsi dibawah 25% sesuai pedoman skripsi - Susun manuskrip jurnal untuk publish penelitian setelah seminar hasil	

LEMBAR BIMBINGAN PROPOSAL & SKRIPSI

PEMBIMBING I : Widia Lestari, S.Kep., M.Sc
MAHASISWA : Miftah Kamilia Fadhilah
NIM : P01720322025
JUDUL SKRIPSI : Efektivitas *Foot Reflection Board* Dengan *Buerger Allen Exercise*
 Terhadap Sensitivitas Kaki Pada Penyandang Diabetes Mellitus
 Di Wilayah Kerja Puskesmas Sawah Lebar Kota Bengkulu
 Tahun 2026

NO	HARI / TANGGAL	TOPIK	SARAN	PARAF PEMBIMBING
1.	Rabu / 30 Juli 2025	Konsul Judul	- Cari masalah terkait penelitian yang diamati - Alasan mengenai pengambilan judul	<i>u</i>
2.	Jumat / 08 Agustus 2025	Konsul Judul	- Perbanyak referensi terkait judul - Referensi sesuai dengan judul atau tidak	<i>u,</i>
3.	Selasa / 19 Agustus 2025	Konsul Judul	- ACC Judul - Perbanyak referensi terkait judul yang diminati - Lanjutkan ke penulisan proposal	<i>u,</i>
4.	Senin / 17 November 2025	Konsul BAB I, II, dan III	- Perbaiki penulisan - Perbaiki konsep teori - Tambahkan teori yang mendukung - Perbanyak sumber materi	<i>u,</i>
5.	Kamis / 20 November 2025	Konsul BAB I, II, dan III	- Perhatikan penulisan - Alur pembicaraan harus jelas - Tambahkan data dan hasil studi pendahuluan - Perbaiki kerangka teori	<i>u,</i>
6.	Rabu / 03 Desember 2025	Konsul BAB I, II, III, dan IV	- ACC proposal dan lanjut ujian proposal	<i>u,</i>

7.	Rabu / 01 April 2026	Konfirmasi pelaksanaan terapi penelitian	- Lanjutkan sesuai dengan prosedur dan jurnal yang ada	N
8.	Selasa / 9 Juni 2026	Konsultasi Hasil olah data SPSS	- Konsultasi hasil olah data SPSS dan data master - Pastikan data yang di-input benar dan cek kembali jika ada kekeliruan data - Lanjutkan untuk menulis BAB 5	N
9.	Jumat / 12 Juni 2026	Konsultasi BAB 5 Hasil Penelitian	- Isi BAB 5 sesuaikan dengan Tujuan Khusus - Tambahkan interpretasi data dari hasil yang didapatkan dan uji yg digunakan	N
10.	Rabu / 17 Juni 2026	Konsultasi revisi BAB 5 dan BAB 6	- Perhatikan typo penulisan pada bagian isi tabel dan interpretasi, baik itu hasil analisis univariat dan bivariat - Tambahkan beberapa jurnal yang relevan	N
11.	Kamis / 18 Juni 2026	Konsultasi BAB 7 Penutup serta pengecekan BAB 1- 7	- BAB 3 sesuaikan dengan pelaksanaan yang telah dilakukan - Isi Kesimpulan dan saran sesuaikan dengan tujuan dan manfaat di bagian awal	N
12.	Jumat / 19 Juni 2026	Pengecekan Kembali BAB 1 – BAB 7 dan melengkapi skripsi untuk lanjut sidang seminar hasil	- ACC ujian seminar hasil - Siapkan PPT untuk ujian seminar hasil skripsi - Pastikan Turnitin skripsi dibawah 25% sesuai pedoman skripsi - Susun manuskrip jurnal untuk publish penelitian setelah seminar hasil	N