

Development of Diathermy with Mc. Kenzi Exercise Therapy for Cases of Low Back Pain (LBP) at RSI Nashrul Ummah Lamongan

Deny Setiawan

Master of Public Health, Institut Ilmu Kesehatan STRADA Indonesia

**Corresponding author: denysetiawanlamongan@gmail.com*

ABSTRACT

Back pain caused by musculoskeletal disorders can usually be exacerbated by activity, this is different from pain in other conditions. Elderly patients may experience back pain caused by vertebral fractures due to osteoporosis, spinal stenosis, spinal osteoarthritis, among other conditions (Smeltzer, 2011). The results of interviews and observations are then discussed in a discussion to determine the factors causing the problem with a fishbone diagram. Discussions for determining the priority of problem solving are carried out using USG analysis (urgency, seriousness, growth). The USG method (urgency, seriousness, growth) is one of the methods to determine the priority of problems and their solutions (Wardani & Minarno, 2021). The next discussion is to determine a strategy for solving problems using a SWOT (strength, weakness, opportunity, threats) analysis. The results of the fishbone analysis on human factors include the limitations of human resources (HR) making the handling of diathermy development with Mc. Kenzi exercise therapy exercise at RSI NU Lamongan is disturbed and the limited land for the medical rehabilitation and physiotherapy clinic of RSI NU Lamongan makes there is no gymnasium in the physiotherapy poly.

Keywords: analisa USG, diatermi, LBP, Mc. Kenzi exercise, SWOT

Received: January 8, 2022

Revised: February 11, 2023

Accepted: March 1, 2023



This is an open-access article distributed under the terms of the Creative Commons Attribution-ShareAlike 4.0 International License

INTRODUCTION

Low Back Pain (LBP) is an uncomfortable situation or chronic pain with complaints for at least 3 months accompanied by activity limitations that can be caused by pain when moving or mobilizing (Helmi, 2012). Meanwhile, according to Mahadewa and Sri (2009) low back pain is classified as local pain or radicular pain or both which are felt in the lower back area.

Back pain caused by musculoskeletal disorders can usually be exacerbated by activity, this is different from pain in other conditions. Elderly patients may experience back pain caused by vertebral fractures due to osteoporosis, spinal stenosis, spinal osteoarthritis, among other conditions (Smeltzer, 2011). In life, more than 70% of people have suffered from LBP with an average peak incidence of 33-35 years with several risk factors, namely 5-10 years of service, obesity, work position, smokers, and family history of musculoskeletal disorders (Rahmaniyah, 2007).

Pain that gets worse over a long period of time can lead to sexual problems, difficulty defecating, difficulty sleeping, and depression (Bull & Guice, 2007). Meanwhile, according to Lemone (2015) pain can make sufferers afraid to move and can reduce their productivity. Pain is now known to have immediate and long-term effects, such as immobility, anger, and anxiety, pain can also delay healing and rehabilitation for sufferers. Therefore, therapy is prioritized to treat the pain. Based on the above problems, a comprehensive and integrated physiotherapy action is needed through the cooperation of the client, the client's family so that the client can perform health tasks independently. Based on the above considerations, the authors took a residency report on the development of the diathermy method with Mc.Kenzi exercise therapy for low back pain cases at the Islamic Hospital Nashrul Ummah Lamongan. The purpose of this community service activity in general is to analyze the factors that cause the not optimal development of the diathermy method with Mc. Kenzi exercise therapy for the case of Low Beck Pain (LBP) at RSI Nashrul Ummah Lamongan and identify strategies that can be applied in development efforts. Diathermy method with Mc. Kenzi exercise therapy for cases of Low Beck Pain (LBP) at RSI Nashrul Ummah Lamongan.

METHODS

Community service activities are carried out on 27 June 2022-23 July 2022 at RSI Nashrul Ummah Lamongan. Beginning with identifying the problem through interviews with physiotherapy officers, DPJP (doctor in charge of service) and making direct observations. The results of interviews and observations are then discussed in a discussion to determine the factors causing the problem with a fishbone diagram. Discussions for determining the priority of problem solving are carried out using USG analysis (urgency, seriousness, growth). The USG method (urgency, seriousness, growth) is one of the methods to determine the priority of problems and their solutions (Wardani & Minarno, 2021). The next discussion is to determine the problem solving strategy with a SWOT analysis (strength, weakness, opportunity, threats). According to Fentiana & Ginting (2020), the steps for compiling a SWOT analysis are to capture perceptions and assessments obtained through literature and literature studies as well as interview results from related sections and in-depth observations. Then, it is determined that internal analysis includes strengths and weaknesses, as well as external analysis of factors including opportunities and threats. All the factors that have been collected are then given a weight and rating, and the score is the result of multiplying the weight and rating. The score results determine which quadrant a company is in to determine strategies that can be used in problem solving efforts. The problem-solving strategy that has been determined is then presented to the management related to the problem of the non-optimal development of the diathermy method with Mc, Kenzi exercise therapy for the case of Low Beck Pain (LBP) at the physiotherapy poly Physiotherapy of RSI Nashrul Ummah Lamongan.

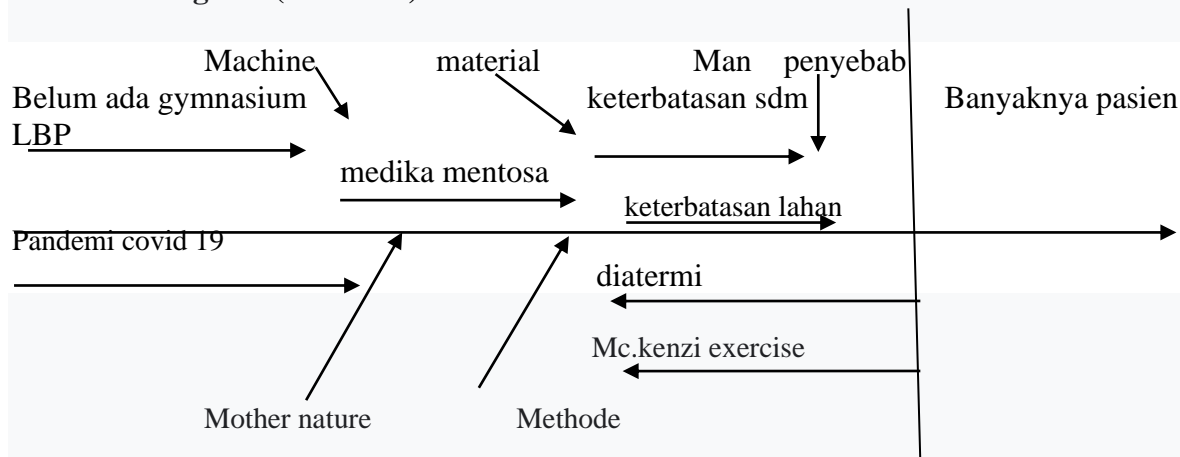
RESULTS

Problem identification in this activity uses fishbone analysis, which is to determine the problem as part of the fish head, then record the factors that may cause problems with the fish head in the fish spines. The problem raised in this activity is that the development of the diathermy method with Mc.Kenzi exercise therapy for the case of Low Beck Pain (LBP) is not optimal at the physiotherapy clinic of RSI Nashrul Ummah Lamongan. Fishbone analysis used in the current problem includes 5M, namely: man, material, method, machine, mother nature. The results of fishbone analysis of human factors include limited human resources (HR) which disrupts the handling of diathermy development with Mc.Kenzi exercise therapy at RSI NU Lamongan and the limited land for the medical rehabilitation polyclinic and

physiotherapy at RSI NU Lamongan means there is no gymnasium in the physiotherapy polyclinic. The results of the analysis of the method are that the limitations of diathermy tools make the service not optimal and the absence of a gymnasium makes the Mc.Kenzi exercise therapy method not conveyed to patients.

Materials The large amount of mentosa medication consumed by patients makes patients obese and worsens the patient's condition as well as Mother Nature. The existence of the Covid-19 pandemic has made the focus of management devoted to dealing with the pandemic, so that development in the medical rehabilitation polyclinic and physiotherapy is delayed. Factor machine There is no gymnasium and limited diathermy.

Fishbone Diagram (Fishbone)



The next discussion is to determine the priority of problem solving with ultrasound analysis

No	INDIKATOR	U	S	G	UxSxG	Rangking
1	Limited human resources are still limited	4	4	5	80	3
2	Diathermy tools are still lacking	5	4	5	100	2
3	Medica mentosa consumed by the patient made the patient obese and worsened the patient's condition.	4	4	5	80	4
4	The existence of the covid-19 pandemic has made the focus of management devoted to dealing with the pandemic, so development in the medical rehabilitation and physiotherapy polyclinics has been delayed.	3	3	4	36	5
5	There is no gymnasium to do Mc.Kenzi exercise therapy	5	5	5	125	1

After determining the priority of problem solving with USG analysis, then determining the problem solving strategy with SWOT analysis.

No.	Factors Analysis (Strenght S)	weight	rating	score
1	Availability of supporting infrastructure	0,10	5	0,50
2	HR support (management)	0,12	5	0,60
3	Hospital financial support	0,13	5	0,65

4	Development of rsi nu lamongan	0,07	4	0,28
5	There is already 1 unit of diathermy	0,12	5	0,60
	Total strength	0,54		2,63

Weakness W

No.	Factor-factor Analisis	Weigh	Rating	Secor
1	Limimited human resources	0,08	3	0,24
2	Insufficient diatermi tools	0,06	2	0,12
3	Excess medication causes obesity	0,05	4	0,20
4	There is a covid 19 pandemic delays development	0,08	5	0,40
5	There is no gymnasium for Mc.Kenzi exercise	0,07	1	0,07
	Total weakness	0,34		1,03
	Total IFE	0,88		
	S-W(2,63-1,03)			1,60

Calculation Matriks External Factor Evaluation (EFE)

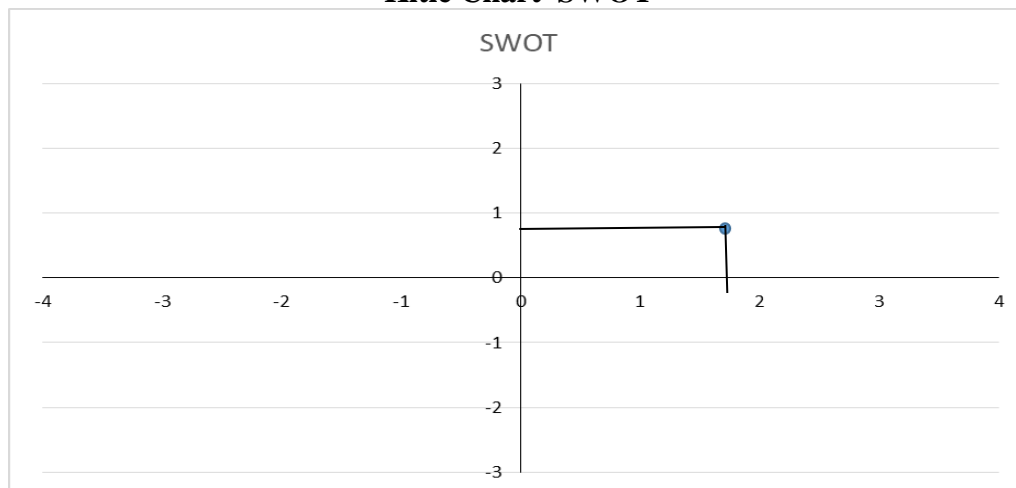
No.	Peluang opportunities	Weight	Rating	Secor
1	Gymnasium devlopment	0,13	5	0,65
2	Procurement of additional diathermy.	0,12	5	0,60
3	Added bed exercise	0,10	4	0,40
4	Reducing obesity in LBP patients	0,12	3	0,30
5	Reducing consumption of mediaka mentosa	0,10	4	0,48
	Total opportunities	0,57		2,43

Threats

No.	Threats	Weight	Rating	Secor
1	Competition between hospitals in providing the best, fast, quality and safe health services.	0,10	4	0,40
2	Changes in the patient's perception of service in the hospital.	0,09	4	0,36
3	Changes in regulations from the government and or the ministry of health	0,12	3	0,36
4	More and more competitors are growing rapidly	0,12	4	0,48
	Total threats	0,43		1,60
	Total EFE	1,00		
	O-T(243-1,60)			0,83

From the results of calculating the value of each internal factor which includes strengths and weaknesses, as well as external factors which include opportunities and threats, the final S-W score is 1.60 and the O-T value is 0.83. The two S-W and O-T values are then depicted on the SWOT diagram to determine the position of the SWOT quadrant. From the results of the quadrants obtained, a strategy can be determined that might be applied.

Kitie Chart SWOT



Analisis SWOT

Factor Internal (IFE)	Strength (S)	Weakness (W)
	<ul style="list-style-type: none"> ✓ Availability of supporting facilities ✓ HR support (management) ✓ Funding support from the Hospital ✓ Development of RSI NU Lamongan ✓ There is already 1 unit of diathermy 	<ul style="list-style-type: none"> ✓ Limited human resources ✓ Diathermy tools are still lacking ✓ Mentosa medicine that continues to make obesity ✓ Pandemic covid-19 delayed development ✓ There is no gymnasium for Mc.Kenzi exercise therapy

Faktor Eksternal (EFE)	Strategi (SO)	Strategi (WO)
Opportunity (O) <ul style="list-style-type: none"> ✓ Development of a gymnasium ✓ Procurement of additional diathermy ✓ Addition of bed exercises ✓ Reducing obesity in LBP patients ✓ Reducing consumption of medicamentosa 	<ul style="list-style-type: none"> ✓ Optimizing existing funds ✓ Optimizing the development of physiotherapy places and equipment 	<ul style="list-style-type: none"> ✓ Motivation and commitment as well as leadership support for the success of poly physiotherapy changes ✓ Improve physiotherapy modalities

Threats (T) ✓ Competition between hospitals in providing the best, fast, accurate, safe and quality health services		
--	--	--

CONCLUSION

Based on the results of analysis with fishbone, ultrasound, and SWOT of the problem of the not yet optimal development of the diathermy method with Mc.Kenzi exercise therapy for the case of Low Back Pain (LBP), it was concluded that the human resource factor (HR) and the lack of development in physiotherapy clinics, in this case diathermy and exercise therapy for LBP patients. Evaluation of the strategy that has been made is to coordinate between management and physiotherapy practitioners for more optimal service in physiotherapy poly and medical rehabilitation.

REFERENCES

- 2020, P. R. N. 21 tahun. (2020). Peraturan Menteri Kesehatan Republik Indonesia Nomor 21 Tahun 2020 tentang Rencana Strategis Kementerian Kesehatan Tahun 2020-2024. <https://doi.org/10.1016/j.tmaid.2020.101607%0Ahttps://doi.org/10.1016/j.ijjsu.2020.02.034%0Ahttps://onlinelibrary.wiley.com/doi/abs/10.1111/cjag.12228%0Ahttps://doi.org/10.1016/j.ssci.2020.104773%0Ahttps://doi.org/10.1016/j.jinf.2020.04.011%0Ahttps://doi.o>
- Fentiana, N., & Ginting, D. (2020). Strategi Peningkatan Pendapatan Rumah Sakit Berdasarkan Analisis SWOT. *Jurnal Ilmiah Universitas Batanghari Jambi*, 20(3), 1008. <https://doi.org/10.33087/jiubj.v20i3.1034>.
- KBBI online. (n.d.). <https://kbbi.web.id/agresif>.
- Komite Akreditasi Rumah Sakit (KARS). (2017). Standar akreditasi Rumah Sakit Jilid I. 421.
- Kusnadi, E. (2020). Blog Eris Fishbone Diagram dan Blog Eris Fishbone Diagram dan Langkah- Langkah Pembuatannya Langkah-Langkah Pembuatan Fishbone Diagram. <http://eriskusnadi.wordpress.com/2011/12/24/fishbone-diagram>.
- Permenkes 65 tahun 2015 Tentang Peraturan Fisioterapi Indonesia.
- RSI Nashrul Ummah Lamongan.