



Research Article

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Trends in the use of manual therapy among physiotherapists in Jakarta: A survey study

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Abstract

Background: In clinical practice, physiotherapists deal with many instances of musculoskeletal disorders. Manual therapy is the most common physiotherapy modality used or can be said to be the most popular and quite effective in musculoskeletal cases. This study aims to examine the knowledge of physiotherapists in the application of manual therapy in clinical practice. Furthermore, specifically to find out the development of the selection of manual therapy techniques or methods that are often used by physiotherapists. **Methods:** The research method used is a survey method that is given online to physiotherapists. Researchers target physiotherapists in the Jakarta, Indonesia. The online questionnaire was created by the researchers and consists of four parts of questions which are demographic data, most common cases, most known manual therapy methods and frequency of using manual therapy in practice. **Results:** Questionnaires were given to 180 target respondents. However, the respondents who accepted to fill out the questionnaire were only 60 respondents. Most common cases faced by physiotherapists are musculoskeletal with the neuromuscular following next. the Mulligan Concepts technique is the technique that is the most known by the respondents or can be considered the most popular. The use of therapeutic exercise and stretching is quite widely used by physiotherapists in combination with manual therapy. **Conclusion.** The Mulligan Manual Therapy technique is the most well-known or popular manual therapy technique among physiotherapists. Although quite popular, all manual therapy technique was often used by physiotherapists.

Keywords: Manual Therapy, Physiotherapy, Intervention, Survey.

INTRODUCTION

In clinical practice, physiotherapists have some procedures for providing services to patients [1-3]. Starting from the examination, determination of the diagnosis, program planning, therapeutic intervention and outcome evaluation. Generally, all procedures are carried out by physiotherapists in both preventive and rehabilitative conditions [4, 5]. Mainly, clinical cases faced by physiotherapists are generally diverse. However, in general, physiotherapists deal with many instances of musculoskeletal disorders [6, 7]. Managing musculoskeletal disorders cases, physiotherapists have various modalities that can be given to patients according to their needs [2, 8]. Manual therapy is the most common physiotherapy modality used or can be said to be the most popular and quite effective in musculoskeletal cases [9, 10]

Types of manual therapy methods are also quite diverse. While at university, students of physiotherapy were taught about the basics of manual therapy with some introduction to manual therapy methods such as joint mobilization, manipulative therapy and some soft tissue approaches and their combination with exercise therapy [11, 12]. Subsequently, when they have graduated and are working, physiotherapists can begin to develop themselves following more specific manual therapy training, courses or seminars. As a result, it is possible to bring up different perceptions or views with one of the manual and evidence-based therapy techniques which are one way for physiotherapists to determine the right manual therapy intervention for patients [13, 14].

Globally, manual therapy is defined as a specific skill of physiotherapists in managing neuromusculoskeletal conditions based on clinical reasoning and using highly specific treatments such as manual techniques and exercise therapy [15]. Manual therapy becomes an option in the management of musculoskeletal conditions because it has the effect of reducing pain, and increasing movement and function which is quite effective [9, 16, 17].

In the development of manual therapy techniques in the practice of physiotherapists, it is also necessary to know the physiotherapist's knowledge of manual therapy itself, both in terms of basic and technical

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development. Therefore, this study aims to examine the knowledge of physiotherapists in the application of manual therapy in clinical practice. Furthermore, specifically to find out the development of the selection of manual therapy techniques or methods that are often used by physiotherapists.

METHODOLOGY

The research method used is a survey method that is given online to physiotherapists. Researchers target physiotherapists in the East Jakarta city, Indonesia, with an estimated of 180 people who are members of the physiotherapist WhatsApp group. The online questionnaire was created by the researcher and consists of four parts of questions. In the first session, the questionnaire will ask about the demographic data of the physiotherapists who fill out the questionnaire, which is about the place of work and education level.

Then the second part will collect information about cases that are often faced by physiotherapists such as musculoskeletal, neuromuscular, cardiorespiratory, pediatric and sports cases. In the third section are questions about the use of manual therapy in the practice of physiotherapists. If respondents answer no, the questionnaire will close immediately at the end. However, if respondents answer always, often or rarely, the questionnaire will be forwarded to the fourth part.

At the end of the questionnaire part, the data asked are several types of manual therapy methods that are best known by physiotherapists such as the Kaltenborn Technique, Maitland Concept, and Mulligan Concept and there are open questions if you know other techniques. Then, the question continues to the frequency of selection of the previously selected method. Next, is the collection of data on other types of interventions used by physiotherapists along with manual therapy.

Questionnaires that are distributed online are first peer-reviewed and corrected if necessary. The distribution of questionnaires is carried out within 3 months from February - April 2022. After the data is obtained, it is continued with data processing and presentation.

RESULT AND DISCUSSION

Questionnaires were given to 180 target respondents. However, the respondents who accepted to fill out the questionnaire were only 60 respondents. The following table are the demographics of the physiotherapist respondents who filled out the questionnaire.

Table 1: Demographic data of Respondent

Parameter	N (%)
Total Respondent	60 (100)
Physiotherapists Profile	
Working Place	
Hospital	36 (60)
Clinic (Independent and Collaboration)	20 (33,3)
Home Visit	4 (6,6)
Education	
Diploma (3 Years)	34 (56,7)
Bachelor/Bachelor of Applied Science (4 year)	20(33,3)
Professional Degree	6 (10)

In the data, it can be seen that most respondents work in hospitals, followed by clinics in the form of collaboration with other health workers or independently. In addition, in terms of education, it is dominated by diplomas and bachelor's primary education. And about 10 per cent are professional physiotherapists who can make independent practice. Some countries actually work the most in hospitals [18, 19] Furthermore, even with entry-level education as a diploma, Indonesia can still be considered a professional physiotherapist supported by the regulation of the minister of health [20].

The next data is about cases faced by physiotherapists. The data is presented in figure 1 in the form of a percentage as follows.

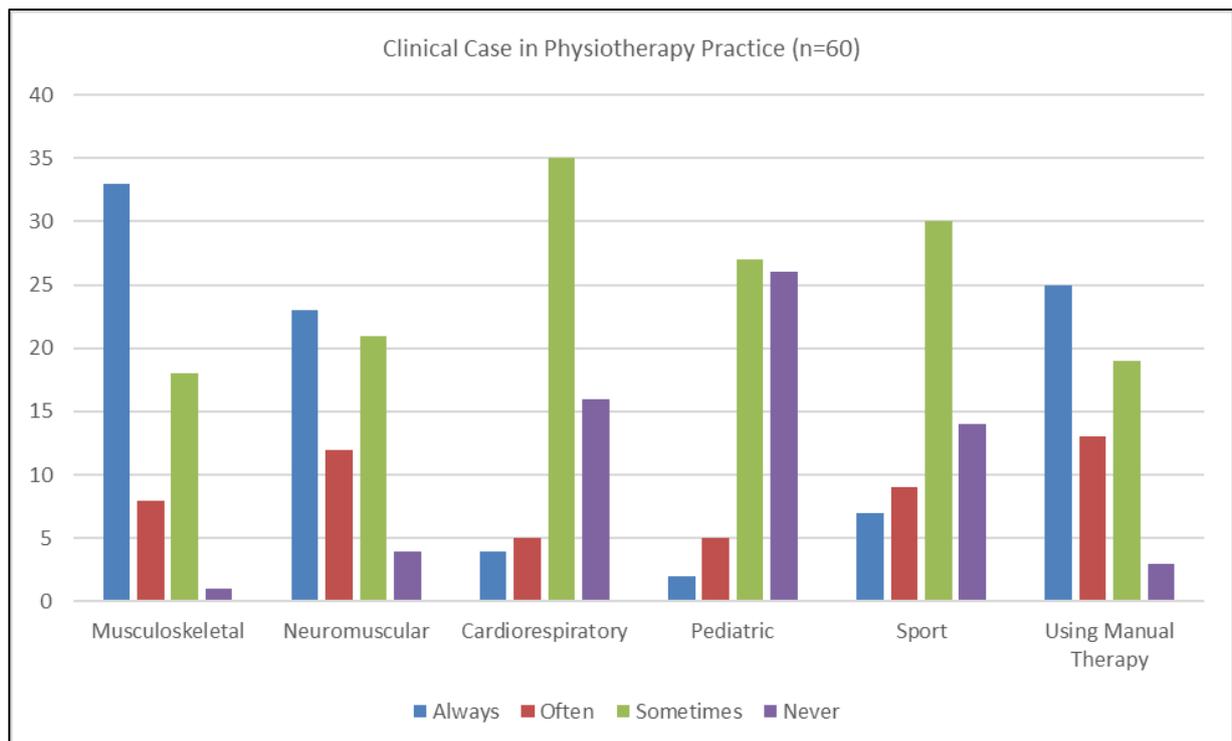


Figure 1: The frequency of clinical cases in physiotherapy practice and using manual therapy (n=60) with details are always (every day), often (3-5 times in a week), sometimes (1-2 times in a week), and never (none in a week).

It can be noted in the table that the most common cases faced by physiotherapists are musculoskeletal with the neuromuscular following next. Meanwhile, cardiorespiratory and pediatric cases are categorized as rare and have never been handled by a physiotherapist. In several previous studies, it was stated that physiotherapists mostly deal with patients with musculoskeletal disorders [21]. When dealing with musculoskeletal cases, physiotherapists usually provide manual therapy interventions which are quite effective [22]. With the quite number of musculoskeletal cases encountered, the frequency of using manual therapy interventions also increases [9, 16, 23]. From the data in graph 2, 3 respondents answered that they had never used manual therapy. Hence, the data was continued with 57 respondents to see the knowledge about manual therapy methods and the frequency of their use.

Maitland	5 (8.8)	9 (15.8)	26 (45.6)	17 (29.8)
Mulligan	9 (15.8)	14 (24.6)	21 (36.8)	13 (22.8)
other	11 (22.4)	8 (16.3)	18 (36.7)	12 (24.5)

In table 3 it can be seen that although quite a lot of types are known, but not always physiotherapists use certain manual therapy method. Again, with Mulligan concepts often used by physiotherapist. However, all methods also find to be often used in clinical practice. This is also supported by a research on the knowledge of physiotherapists in manual therapy practice in Zambia [26]. In this previous study, physiotherapists with a bachelor's degree will have sufficient knowledge of manual therapy techniques including the selection of controlled manual therapy techniques. With these conditions, it is good for physiotherapists to select the use of manual therapy methods without having to rely on only one method.

Thus, physiotherapists using manual therapy techniques must depend on the conditions encountered and the use of methods tailored to the patient's needs [27, 28]. With sufficient knowledge, physiotherapists can improve clinical reasoning about interventions to be used in patients based on evidence [29]. However, although there are several manual therapy techniques that are popular and often used, physiotherapists can still use manual therapy techniques that are mostly mastered by physiotherapists because they will have a good effect on patients if done correctly [10,16].

The next data is about the combination of modalities with manual therapy which is most often used by physiotherapists. The data is presented in Figure 3.

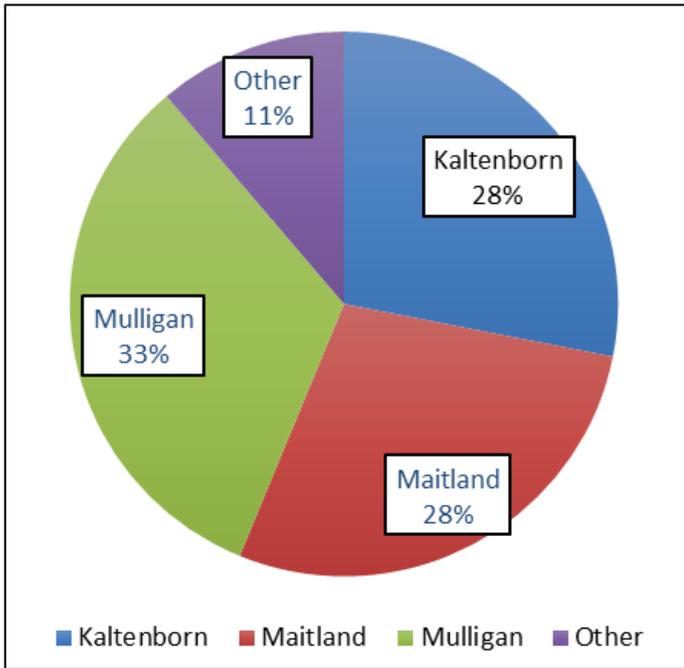


Figure 2: Most known manual therapy method by physiotherapist (in percentage)

In figure 2, it can be seen that the Mulligan Concepts technique is the technique that is the most known by the respondents or can be considered the most popular. Several previous studies have also stated that one of Mulligan's techniques, namely Mobilization with movement, is one of the techniques often used by physiotherapists (24,25). Followed by, the techniques of Maitland and Kaltenborn are quite well known as well. However, from these data, it was not certain whether the physiotherapist has really been trained in using the Mulligan technique. In addition, the physiotherapist also answered several other methods used. From the data obtained by researchers, other methods include stretching, exercise therapy, and muscle energy techniques. This is possible because the physiotherapist prefers techniques that are commonly used and understood with certainty by the physiotherapist.

The next the data presented is the frequency of manual therapy based on methods known by the physiotherapist.

Table 3: Frequency of using manual therapy method with details with details always (every day), often (3-5 times in a week), sometimes (1-2 times in a week), and never (none in a week) (n=60).

Manual Therapy Method	Frequency in a week n (%)			
	Always	Often	Rare	None
Kaltenborn	7 (12.3)	8 (14)	28 (49.1)	14 (24.6)

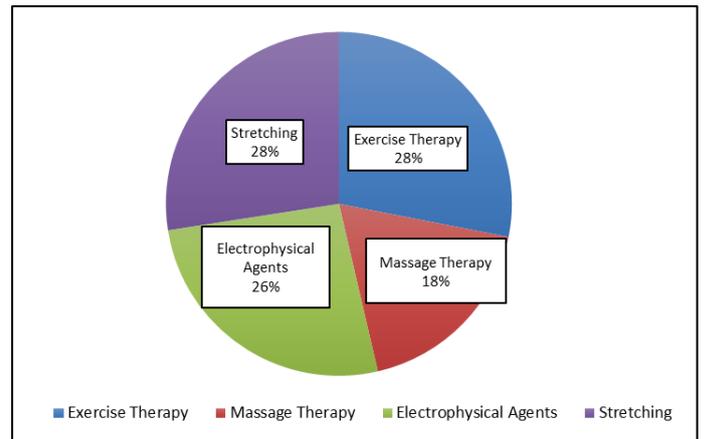


Figure 3: Combined modality with manual therapy

With the data above, it can be seen that the use of therapeutic exercise and stretching is quite widely used by physiotherapists in combination with manual therapy. The manual therapy method is not always used independently, but is combined with exercise therapy by a physiotherapist (26,30). In addition, the combination of manual therapy and other interventions is intended to achieve good patient outcomes, especially in musculoskeletal cases [31].

The weakness in this study is that data collection related to continuous physiotherapy education in manual therapy has not been carried out. Thus, it is not known whether the physiotherapist's knowledge of manual therapy techniques is based on university education or post-professional training. Future research is expected to be carried out by analyzing the specific manual therapy techniques used and the reasons for their use. Also, the participation of respondents also needs to be improved so that the data obtained is more optimal.

CONCLUSION

Through analysis of the data that has been collected, it can be concluded that the manual therapy technique is well known and The Mulligan Manual Therapy technique is the most well-known or popular manual therapy techniques among physiotherapists. Although quite popular, all manual therapy technique was often used by physiotherapists. Furthermore, the use of manual therapy is always combined with several other modalities such as exercise therapy, stretching, massage therapy and electro physical agents in order to get better outcomes of the patients conditions.

Recommendation

Through this and previous studies, recommendations can be given, mainly that physiotherapists are expected to continue to update manual therapy techniques through training and use them according to needs within the framework of patient centered care.

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Conflict of interest

No conflict of interest to declare.

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Compliance with Ethics

The Indonesian Physiotherapy Association branch East Jakarta was allowed this research with reference number 03/IFI-JAKTIM/XI/2021.

REFERENCES

1. World Confederation for Physical Therapy. Guideline for standards of physical therapy practice. 2011;1-19. Available from: <https://world.physio/sites/default/files/2020-07/G-2011-Standards-practice.pdf>
2. Dutton M. Dutton's Orthopaedic Examination, Evaluation, and Intervention. Fifth Edit. McGraw-Hill Educatio. 2020.
3. Manurung NSA. Manajemen Proses Fisioterapi Pada Satu Rumah Sakit Swasta Di Jakarta Timur. J Ilm Fisioter. 2020;20(2):54-63.
4. Bezner JR. Promoting Health and Wellness: Implications for Physical Therapist Practice. Phys Ther [Internet]. 2015;95(10):1433-44. Available from: <https://doi.org/10.2522/ptj.20140271>
5. Demont A, Bourmaud A, Kechichian A, Desmeules F. The impact of direct access physiotherapy compared to primary care physician led usual care for patients with musculoskeletal disorders: a systematic review of the literature. Disabil Rehabil [Internet]. 2021;43(12):1637-48. Available from: <https://doi.org/10.1080/09638288.2019.1674388>
6. Chartered Society of Physiotherapy. An audit of physiotherapy services in England. Chart Soc Physiother. 2012;(January).
7. Hutting N, Oswald W, Staal JB, Engels J, Nouwens E, Nijhuis-van der Sanden M, et al. The contribution of physiotherapy to the employment of workers with a chronic musculoskeletal disorder: a focus group study. Eur J Physiother. 2017;19:51-3.
8. Gagnon R, Perreault K, Berthelot S, Matifat E, Desmeules F, Achou B, et al. Direct-access physiotherapy to help manage patients with musculoskeletal disorders in an emergency department: Results of a randomized controlled trial. Acad Emerg Med. 2021;28(8):848-58.
9. Ho CYC, Sole G, Munn J. The effectiveness of manual therapy in the management of musculoskeletal disorders of the shoulder: A systematic review. Man Ther [Internet]. 2009;14(5):463-74. Available from: <http://dx.doi.org/10.1016/j.math.2009.03.008>
10. Bialosky JE, Beneciuk JM, Bishop MD, Coronado RA, Penza CW, Simon CB, et al. Unraveling the mechanisms of manual therapy: Modeling an approach. J Orthop Sports Phys Ther. 2018;48(1):8-18.
11. Wise CH. Orthopaedic manual physical therapy from art to evidence. FA Davis, 2015.
12. Kolb WH, McDevitt AW, Young J, Shamus E. The evolution of manual therapy education: what are we waiting for? Vol. 28, The Journal of manual & manipulative therapy. 2020, 1-3.
13. Constantine Michael, Carpenter DC. Bringing Masters' level skills to the clinical setting: What is the experience like for graduates of the Master of Science in manual therapy programme? Physiother Theory Pract [Internet]. 2012;28(8):595-603. Available from: <https://doi.org/10.3109/09593985.2012.666333>
14. Green A, Perry J, Harrison K. The influence of a postgraduate clinical master's qualification in manual therapy on the careers of physiotherapists in the United Kingdom. Man Ther [Internet]. 2008;13(2):139-47. Available from: <https://www.sciencedirect.com/science/article/pii/S1356689X06001767>
15. Rushton A, Beeton K, Jordaan R, Langendoen J, Levesque L, Maffey L, et al. Educational Standards In Orthopaedic Manipulative Therapy. Part a Educ Stand 2016, 2016;91.
16. Anggiat L, Altavas AJ, Budhyanti W. Joint Mobilization: Theory and evidence review. Int J Sport Exerc Heal Res. 2020;4(2):86-90.
17. Bove GM, Delany, Sean P, Hobson L, Cruz GE, Harris MY, Amin M, et al. Manual therapy prevents onset of nociceptor activity, sensorimotor dysfunction, and neural fibrosis induced by a volitional repetitive task. Pain. 2019;160(3):139-48.
18. Lindsay R, Hanson L, Taylor M, McBurney H. Workplace stressors experienced by physiotherapists working in regional public hospitals. Aust J Rural Health. 2008;16:194-200.
19. Nkhata La, Zyaambo C, Nzala SH, Siziya S. Work-related Musculoskeletal Disorders : prevalence , contributing factors and coping strategies among Physiotherapy personnel in Lusaka , Kitwe and Ndola districts , Zambia. Physiotherapy. 2010;37(4):262-7.
20. Kementerian Kesehatan Republik Indonesia. Peraturan Menteri Kesehatan No.80 Tahun 2013. 2013.
21. Hush JM, Yung V, Mackey M, Adams R, Wand BM, Nelson R, et al. Patient satisfaction with musculoskeletal physiotherapy care in australia: An international comparison. J Man Manip Ther. 2012;20(4):201-8.
22. Ho C-YC, Sole G, Munn J. The effectiveness of manual therapy in the management of musculoskeletal disorders of the shoulder: a systematic review. Man Ther. 2009;14(5):463-74.
23. Bialosky JE, Bishop MD, Price DD, Robinson ME, George SZ. The mechanisms of manual therapy in the treatment of musculoskeletal pain: a comprehensive model. Man Ther. 2009;14(5):531-8.
24. Konstantinou K, Foster N, Rushton A, Baxter D. The use and reported effects of mobilization with movement techniques in low back pain management; a cross-sectional descriptive survey of physiotherapists in Britain. Man Ther [Internet]. 2002;7(4):206-14. Available from: <https://www.sciencedirect.com/science/article/pii/S1356689X02904698>
25. Hidalgo B, Hall T, Berwart M, Biernaux E, Detrembleur C. The immediate effects of two manual therapy techniques on ankle musculoarticular stiffness and dorsiflexion range of motion in people with chronic ankle rigidity: A randomized clinical trial. J Back Musculoskelet Rehabil. 2018;31(3):515-24.
26. Chavula G. Level of Knowledge and Practice of Manual Therapy among Physiotherapy Practitioners at the University Teaching

- Hospital, Lusaka, Zambia. *Int J Clin Exp Med Res*. 2022;6(2):103-10.
27. Edwards I, Jones M, Carr J, Braunack-Mayer A, Jensen GM. Clinical Reasoning Strategies in Physical Therapy. *Phys Ther* [Internet]. 2004;84(4):312–30. Available from: <https://doi.org/10.1093/ptj/84.4.312>
 28. Fernández-de-las-Peñas C, Courtney CA. Clinical reasoning for manual therapy management of tension type and cervicogenic headache. *J Man Manip Ther* [Internet]. 2014;22(1):45-51. Available from: <https://doi.org/10.1179/2042618613Y.0000000050>
 29. Smart K, Doody C. The clinical reasoning of pain by experienced musculoskeletal physiotherapists. *Man Ther* [Internet]. 2007;12(1):40-9. Available from: <https://www.sciencedirect.com/science/article/pii/S1356689X06000361>
 30. Hoving JL, De Vet HCW, Koes BW, Mameren H Van, Devillé WLJM, Van Der Windt DAWM, et al. Manual therapy, physical therapy, or continued care by the general practitioner for patients with neck pain: Long-term results from a pragmatic randomized clinical trial. *Clin J Pain*. 2006;22(4):370-7.
 31. Beltran-Alacreu H, López-de-Uralde-Villanueva I, Fernández-Carnero J, La Touche R. Manual Therapy, Therapeutic Patient Education, and Therapeutic Exercise, an Effective Multimodal Treatment of Nonspecific Chronic Neck Pain: A Randomized Controlled Trial. *Am J Phys Med Rehabil* [Internet]. 2015;94(10S). Available from: https://journals.lww.com/ajpmr/Fulltext/2015/10001/Manual_Therapy,_Therapeutic_Patient_Education,_and.8.aspx

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