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Proposed Strategies for Improving Blood and Fluid Circulation in the Body to Accelerate Physiotherapy Treatment from the Perspective of Persian Medicine (PM)

Mohammad Hashemimehr[1*], **Farah Ahad**[2]

[1]PhD Student in History of Medicine, Center for Traditional and Complementary Medicine Research and History of Medicine, Mazandaran University of Medical Sciences, Sari, Iran

[2]MBBS, Tehran University of Medical Sciences and Technology, Tehran, Iran, Kashmir, India

Correspondence: Mohammad Hashemimehr, PhD Student in History of Medicine, Center for Traditional and Complementary Medicine Research and History of Medicine, Mazandaran University of Medical Sciences, Sari, Iran, Email: paul_wetmore@yahoo.com

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Abstract

Introduction: This study investigates the role of bodily fluids and humors from the perspective of PM and their influence on physiotherapy. According to PM, fluids are in a continuous flow from the time of nourishment until excretion, and the bio-physical and biochemical properties of the body are affected by the method and type of diet.

Methods and Materials: This research was conducted using a library-based approach combined with an experimental perspective, collecting data from reputable sources in the fields of physiotherapy and PM.

Findings: The findings indicate that several factors, such as physical inactivity, wearing tight clothing, increased concentration of bodily humors, and psychological stress, can lead to reduced blood and fluid circulation, thereby disrupting the healing process in physiotherapy. Based on these results, dietary modifications and attention to Iranian medicinal treatment methods can help improve the properties of bodily fluids and accelerate recovery. Particularly, suitable dietary regimens that alter the viscosity and thickness of bodily humors can enhance the effectiveness of physiotherapy techniques.

Conclusion: This research demonstrates that paying attention to the bio-physical aspects of bodily fluids and humors in PM can be considered an effective complementary approach in physiotherapy. Integrating Iranian medical perspectives with modern physiotherapy methods offers a comprehensive and interdisciplinary strategy to enhance the speed and quality of the healing process.

Introduction

Introduction

Physiotherapy, as an ancient medical discipline, has deep roots in human history, with various therapeutic methods such as hydrotherapy, massage therapy [Figure 1], and exercise being utilized across different civilizations including India, China, Iran, Rome, and ancient Greece. According to existing records, activities like gymnastics, which involved physical exercises aimed at strengthening the body, began around 500 BC in Greece. Herodicus [1], a Greek physician, is recognized as one of the pioneers of sports medicine; during this period, he emphasized physical activity as a tool for improving health. Hippocrates, known as the father of medicine, also highlighted the importance of physical exercises, and in this context, hydrotherapy emerged as a notable treatment method [1].

Modern physiotherapy, as a specialized medical field, focuses on the assessment, diagnosis, prevention, and treatment of movement disorders. Practitioners in this field typically work with the nervous, musculoskeletal, cardiovascular, and

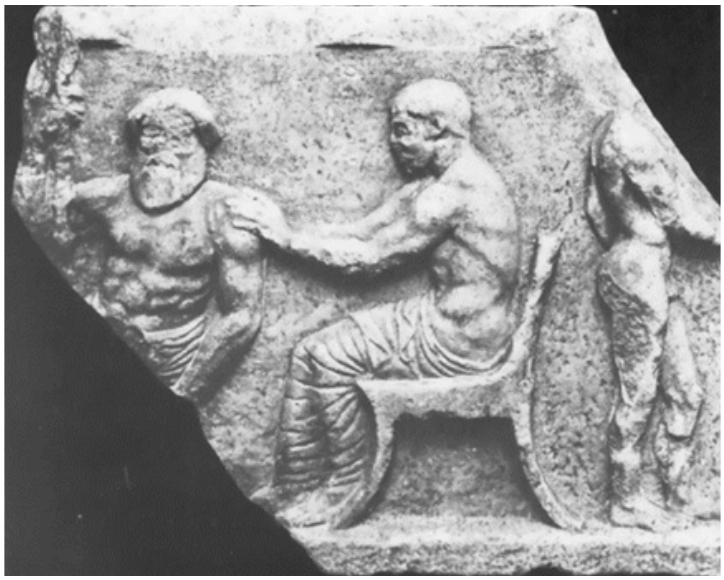

Figure 1: A stone carving depicting shoulder massage in the city of Cirene, Libya, dating back approximately 2000 years

respiratory systems [1]. The primary goal of physiotherapy is to improve patients' quality of life by enhancing mobility, reducing symptoms of illness, and improving functional capacity [2]. This discipline employs a variety of techniques and methods, such as exercise therapy, massage therapy, and manual therapy, aimed at increasing joint range of motion, strengthening muscular power, and improving blood circulation [3-4].

One of the most interesting recent findings in the field of physiotherapy is the understanding of the role of fasciae (Fascia), which are recognized as connective tissues that link various cells and organs in the body. These thin tissues, which in the past were considered as mere separating or filling structures, are now understood as an integrated and complex system that connects all parts of the body [5]. Fascia acts as a communication system, aiding in force transmission, venous and lymphatic return, and maintaining posture. In fact, dysfunction in one area of this network can lead to various problems, especially in other regions of the body. For example, if the plantar fascia becomes problematic, it can negatively affect other joints such as the hip joint [6].

Research indicates that the connectivity and integration of fascia are crucial for proper body function, and dysfunction can lead to pain, reduced range of motion, and other movement issues. Understanding myofascial pathways can help physiotherapists identify pressure points and blockages, enabling them to provide more effective treatment methods for pain caused by these disorders [7].

The advancements in modern physiotherapy methods raise questions about the role of PM in this field. Historically, PMhas been considered a complementary system for improving patient conditions. This article aims to explore and provide solutions based on PMto accelerate blood circulation and body fluid balance. By examining the principles and concepts of PM, not only can patient conditions be improved, but these insights can also be used to design suitable treatment protocols that may enhance the effectiveness of physiotherapy treatments [8-9].

Ultimately, this study aims to highlight the importance of understanding and utilizing the principles of Iranian medicine to enhance the quality of physiotherapy treatments. This approach can serve as a complementary component within rehabilitation programs and contribute to a deeper understanding of the connections between tissues and body fluids.

Research background

Studies on physiotherapy and its applications in improving patients' quality of life have garnered significant attention in recent years. Previous investigations have examined the effects of various physiotherapy methods on movement disorders. Additionally, the use of complementary approaches, such as traditional medicine, in disease treatment has been recognized as an innovative and effective strategy in the scientific theories of many researchers [6-7]. However, the limitations present in studies related to the integration of PMand physiotherapy indicate a need for further research in this area.

In this context, recent studies have introduced combined treatment models; however, most of these investigations have focused solely on physiotherapy outcomes without considering the effects of traditional medicine. Meanwhile, integrating these two approaches could provide a more advantageous platform for advancing therapeutic techniques and increasing the efficacy of treatment methods [8-9]. The existing gap in the scientific literature highlights the necessity of collecting and reviewing Iranian medical documentation and analyzing appropriate interventions alongside physiotherapy. To address this gap, a descriptive-experimental study appears to be essential.

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fluids, and humors were searched within traditional Iranian medical texts and reputable scientific sources, including "Makhzan al-Adwiya" by AqiliKhorasani and "Tibb-e Akbari" by Hakim Arzani. Additionally, credible databases such as PubMed, Scopus, and Google Scholar were utilized to identify related articles. After categorizing the collected data, the results were documented in written form.

The findings indicate that PMbelieves that body fluids and humors are constantly in circulation. From the moment they enter the body through nutrition until their exit, they follow a continuous flow in various forms such as sweat, urine, feces, blood, milk, and other secretions. In other words, the biophysical and biochemical characteristics of the body depend on the type and volume of inputs. By modifying diet and lifestyle, it is possible to improve the physiotherapy process and accelerate the rehabilitation of injuries. The accumulation of water and electrolytes, along with increased viscosity of body fluids, are factors that can affect blood flow and the movement of bodily fluids, thereby disrupting the healing process [4].

Foods that lead to decreased flexibility and increased fluid retention in the body are known as viscous foods in PM. Excessive consumption of these foods, especially among the elderly and sedentary individuals, can result in delays in the reconstruction and rehabilitation of muscular, tendinous, and joint injuries. Examples of such foods include macaroni, lasagna, steamed rice, cakes, biscuits, various types of noodles, Olivier salad, pizza, sugar, jelly, pasta, cream, and head and foot parts [10]. An increase in the viscosity of body fluids can be felt physically; for example, individuals with heightened viscosity may experience coldness in their feet, reduced blood flow, and noticeable symptoms in various areas. In this regard, by palpating the additional, sticky, and viscous substances, it can be determined that the body's humors have become more viscous than normal [11].

Lack of activity is another factor that affects the reduction of body fluid circulation. In the modern world, sitting or standing in one place, wearing tight clothing, and being overweight can decrease blood flow to the limbs, especially in connective tissue, ligaments, tendons, and muscles. Reduced blood circulation negatively impacts tissue rehabilitation processes. To improve blood flow in the lower limbs, simple methods such as keeping the limbs warm with warm water and wearing appropriate clothing can be effective. These measures not only improve the patient's overall condition but also can accelerate the physiotherapy recovery process [12].

PMemphasizes the connection between body organs. According to this perspective, body humors and fluids circulate among different organs, and any disruption in this cycle can lead to diseases. The term “Nazlah” refers to the movement of fluids from the upper parts of the body to the lower parts. The occurrence of undesirable secretions can be associated with problems such as asthma, indigestion, and joint pain, where dysfunction in one organ may affect others [12]. Therefore, to achieve better results in physiotherapy treatments, special attention should be paid to the relationships between organs, and treatments should be designed to consider the entire body's systems.

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PMemphasizes the importance of blood circulation and energy. Practitioners believe that the body has a governing force responsible for distributing blood and energy. This force ensures that when more energy is needed in internal organs, blood circulation shifts from the surface to the deeper parts of the body. Physiotherapists should pay attention to the timing and sequence of treatment activities to maximize the benefits. Therefore, it is recommended that physiotherapy sessions are not conducted immediately after meals, as this can hinder the full absorption of therapeutic effects [13].

Massage before and after physiotherapy interventions is another method to improve blood circulation [13]. Massaging the affected areas helps accelerate waste removal and enhances blood flow [14]. After treatments, reflex massage can promote better fluid circulation and aid in removing excess substances. Timing physiotherapy sessions appropriately not only improves circulation but also reduces pain, disability, and enhances patients' quality of life [15]. Changing lifestyle and diet is another effective way to improve blood circulation. Consuming foods with blood-thinning properties can support health. Examples include red pepper, ginkgo biloba, pomegranate, cinnamon, walnuts, and garlic [16]. Consuming foods like green tea, ginger, and turmeric is well known as natural items that can help improve blood circulation [17]. The continuous and moderate intake of certain herbs and fruits that significantly impact circulation is shown in [Table 1].

No	Plant/Fruit Name	Scientific Name	Properties
1	Ginger	Zingiberofficinale	Due to its salicylic acid content, it prevents blood clotting
2	Green tea	Camellia sinensis	Contains a compound called flavanol, which helps improve blood circulation by reducing platelet aggregation and increasing vessel flexibility
3	Mountain tea	Stachyslavandulifolia	A simple and accessible herbal infusion that aids in reducing blood viscosity
4	Cinnamon	Cinnamomumverum	Contains coumarin, which helps prevent blood coagulation
5	Thyme	Thymus vulgaris	Similar to blood donation and cupping therapy, it prevents blood thickening
6	Jujube	Ziziphusjujuba	Similar to cupping therapy, it helps prevent blood viscosity
7	Cherry	Prunuscerasus	Contains salicylates and acts similarly to aspirin, which is beneficial for reducing blood viscosity
8	Mulberry	Morus alba	Due to its salicylate content, it is effective in alleviating blood thickening
9	Chicory	Cichoriumintybus	Helps in blood thinning
10	Dill	Anethumgraveolens	Fresh or dried leaves are beneficial in preventing blood thickening
11	Mint	Mentha	Aids in blood thinning and improves blood circulation

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12	Turmeric	Curcuma longa	Recommended for reducing blood viscosity.
13	Licorice root	Glycyrrhizaglabra	Dried licorice root is effective in lowering blood thickening
14	Chamomile	Leucanthemum	Helps in blood thinning
15	Rooibos tea	Aspalathuslinearis	It has blood-thinning and vasodilating properties.
16	Marjoram	Origanummajorana	With antioxidant properties, it helps improve blood circulation and reduce blood pressure
17	Sage	Salvia officinalis	Beneficial for enhancing blood circulation
18	Tamarind	Tamarindusindica	Reduces stress and improves blood circulation
19	Hawthorn	Crataegus	Helps lower blood pressure
20	Black cumin	Nigella sativa	Also contributes to reducing blood pressure
21	Costus	Costus	Improves blood circulation
22	Bitter almond	Brabejumstellatifolium	Purifies the blood
23	Chamomile	Matricariachamomilla	Reduces stress and enhances blood circulation
24	Myrrh	Mastic	Helps improve blood flow
25	Rosemary	Salvia rosmarinus	Strengthens the circulatory system
26	Frankincense	Boswellia	Helps lower blood pressure
27	Basil	Ocimumbasilicum	Acts as an antidepressant and reduces stress, while also improving blood circulation
28	Cinnamon	Elettaria	Controls blood pressure
29	Pennyroyal	Menthapulegium	Acts as an anti-stress and anxiety reliever, and improves blood circulation
30	Clove	Dianthus	Helps in blood pressure regulation

Table 1: Names of some herbs and fruits that are effective in improving blood circulation [18].

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Ultimately, in PMtexts, significant emphasis is placed on the use of complementary techniques such as hydrotherapy, reflexology, acupuncture, and massage, which can ensure improved blood circulation and pain relief. The alternating use of hot and cold water is among the effective methods for stimulating blood flow; when the body transitions from cold to warm water, this process results in increased blood flow to the surface of the skin and subsequently to the deeper tissues [14]. In summary, based on the findings and conducted studies, a deeper understanding of the relationship between bodily fluids and humors, as well as the impacts of lifestyle and nutrition on improving physiotherapy conditions, appears to be essential. These findings can serve as a foundation for designing more effective treatment protocols in this regard and contribute to enhancing patients' quality of life.

Discussion

The discussion of the results highlights that integrating physiotherapy with the principles of PMcan contribute to improving the quality of patient care. Traditional methods such as massage and dietary regimens are recognized as effective complementary approaches to accelerate the healing process. Comparing these findings with previous research indicates that there are still gaps in this field that require further attention. Initial clinical experiences in integrating these two approaches are promising for a bright future inpatient rehabilitation and active treatment. Given the increasing popularity of complementary therapies, it is essential that this information is well incorporated into clinical content.

Conclusion

An examination of the historical development of therapeutic approaches reveals that ancient civilizations such as Iran, Greece, India, and China, several centuries BC, utilized corrective movements, physical exercises, and methods like hydrotherapy and massage therapy to reduce pain, enhance mental relaxation, and strengthen physical capacity. In these systems of thought, the role of bodily humors and fluids, from nutrition to elimination, was regarded as a continuous flow of life. The type and quality of consumed food have a direct impact on the bio-physiological and biochemical characteristics of the body, and disruption in this flow is considered one of the main reasons for delayed tissue regeneration and reduced effectiveness of physiotherapy processes. From the perspective of PM, factors such as inactivity, excessive intake of sugar and fats, oversleeping, avoidance of exercise, wearing tight clothing, and not keeping the lower limbs warm play a role in the occurrence of muscular and skeletal pain. Excessive consumption of cold foods, pickles, red meat, smoking, stress, and excessive fear can slow down the movement of bodily fluids and disrupt the body's physiological functions.

Sources of PMrefer to the impact of specific diets and abstentions on the properties of bodily fluids, such as viscosity and elasticity, which aligns with modern biochemical and biophysical principles. Since physiotherapy is based on modifying biophysical tissue behaviors, regulating the rheological properties of body fluids can enhance treatment effectiveness. Traditional methods like cupping, bloodletting, ventosa therapy, leech therapy, and massage are suggested to improve blood circulation and fluid transfer. The use of these methods ultimately leads to improved flexibility, strength, and density of muscular, skeletal, and nervous tissues. Overall, paying attention to and integrating ancient PMapproaches with modern physiotherapy methods creates a comprehensive and interdisciplinary strategy to enhance the speed and quality of the treatment process.

References

1. The Authors (2022). Educational booklet on the fundamentals of Persian and Complementary Medicine for physiotherapy students. 1st ed. Tehran: Toranjan Publications. Approved by the 69th Supreme Council for Medical Sciences Planning, Ministry of Health, Treatment, and Medical Education, April 24, 2018.
2. Molero-Mateo P, Molina-Rueda F (2024). Physiotherapy for patients with functional movement disorder: A systematic review. Neurologia (Engl Ed). 39:505-514.
3. Niewiadomy P, Tiffert-Tłok J, Szuścik K, Stolecka-Warzecha A, Kwaśna K (2016). Estimation of changes of lower limbs reactivity among mountain cyclist under the influence of sauna treatment. Physiother Health Act. 24:12-18.
4. Li W, Fine JM (2015). Applied Biological Fluid Mechanics. Ghalichi F, translator. Tabriz: Sahand University of Technology Publications.
5. Ajimsha MS, Shenoy PD, Gampawar N (2020). Role of fascial connectivity in musculoskeletal dysfunctions: A narrative review. J Bodyw Mov Ther. 24:423-431.
6. Varghese JG, Hari Priya GAG (2017). Role of Fascia in Human Function. Res J Pharm Tech. 10.
7. Myers TW (2009). Myofascial Meridians for Manual Therapists and Movement Professionals. 2nd ed. Elsevier.
8. Soh KS (2009). Bonghan Circulatory System as an Extension of Acupuncture Meridians. J Acupunct Meridian Stud. 2:93-106.
9. Ogay V, Bae KH, Kim KW, Soh KS (2009). Comparison of the Characteristic Features of Bonghan Ducts, Blood and Lymphatic Capillaries. J Acupunct Meridian Stud. 2:107-117.
10. Aghili Shirazi SMH (1883). Makhzan al-Adwiya (Encyclopedia of Edible and Medicinal Substances in Persian Medicine). 3rd ed. Qom: Noor Al-Tib Software.
11. Hall JE (2021). Guyton and Hall Textbook of Medical Physiology. Shadan F, translator. Tehran: Chahr Publication.
12. Nazem E (2008). Medicine and Nature. 1st ed. Qom: Noor Al-Tib Software.
13. Radziejowska M, Radziejowski P, Romaniv O (2020). Effects of massaging upper limb parts in different order on changing the level of blood circulation in the massaged area. J Phys Educ Sport. 6:3273-3279.
14. Jaladat AM, Attarzadeh F, Chorum M, Nimrouzi M (2013). Review of Iranian scholars' opinions on Dalk in the book Tohfeh Sa'dieh. J Med Hist. 5:49-66.
15. Girma Kassaye Sh, De Hertogh W, Crosiers D, Kebede Gudina E, De Pauw J (2024). The effectiveness of physiotherapy for patients with isolated cervical dystonia: An updated systematic review and meta-analysis. BMC Neurol. 24:53.
16. Li Y, et al (2021). Systems pharmacology reveals the multi-level synergetic mechanism of action of Ginkgo biloba L. leaves for cardiomyopathy treatment. J Ethnopharmacol. 264:113279.
17. Adebawo O, Salau BA, Adeyanju MM, Osilesi O (2007). Fruits and vegetables moderate blood pressure, fibrinogen concentration and plasma viscosity in Nigerian hypertensive. Afr J Food Agric Nutr Dev. 7.
18. Hakim Momen (2018). Tohfeh al-Momineen. Institute for the Revival of Natural Medicine Studies, editor. Tehran: Safir Ardahal Publications.

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