Indian Journal of Physiotherapy and Rehabilitation Science

IJPTRS Vol 2(2) April-May-June 2023 pp1-7 EISSN 2583-4304

URL:https://www.ijptrs.com/view-issue/88/Fulltext

DOI:https://www.ijptrs.com/public/images/content/296Bid%20Dibyendunarayan%20Dhrubaprasad1.pdf

The Connection between Yoga and Physiotherapy: A Review

Bid Dibyendunarayan Dhrubaprasad[1]

1.Head of the Department,

Department of Musculoskeletal Sciences, The Sarvajanik College of Physiotherapy, Rampura, Surat

Author: Bid Dibyendunarayan Dhrubaprasad

dnbid71@gmail.com

Submission: 15th march 2023

Revised: 1st April 2023

Publish: 7th April 2023

Table of content

Introduction

Methodology

Result

Discussion

Conclusion

References

Abstract

This article discusses the connection between yoga and physiotherapy in managing various health conditions. Yoga and physiotherapy intersect in improving physical function and reducing pain by enhancing body awareness, posture, alignment, balance, strength, flexibility, and range of motion.

This article reviews the current evidence on the connection between yoga and physiotherapy, and 16 studies were included. The studies showed that yoga and physiotherapy interventions could effectively manage various health conditions, such as chronic pain, musculoskeletal conditions, and mental health issues. The studies also showed that yoga and physiotherapy interventions complement each other and can be combined to achieve better outcomes.

The connection between physiotherapy and yoga highlights the importance of an integrative approach to health and wellness, incorporating evidence-based practices from different disciplines to meet each patient's or client's needs and goals.

Keywords: Yoga, Physiotherapy, Connection

INTRODUCTION

Yoga and physiotherapy are two forms of therapy used to manage various health conditions. Yoga is a traditional Indian practice that combines physical postures, breathing exercises, and meditation. It has been shown to have beneficial effects on physical and mental health. Physiotherapy, however, involves physical modalities, such as exercise, massage, and electrical stimulation, to manage various health conditions.

Physiotherapy and yoga intersect in improving physical function and reducing pain. Both aim to enhance body awareness, posture, alignment, balance, strength, flexibility, and range of motion. They both share a holistic viewpoint that acknowledges the connection between the mind and body and the significance of treating the underlying causes of dysfunction rather than just its external symptoms.

Physiotherapy often focuses on diagnosing and treating musculoskeletal injuries and conditions, such as sprains, strains, fractures, arthritis, and back pain. It uses various techniques, such as manual therapy, exercise, electrotherapy, and education, to reduce pain, inflammation, stiffness, and muscle weakness. Physiotherapy also emphasizes functional training, which involves teaching patients how to perform activities of daily living, work, and sports safely and efficiently.

On the other hand, yoga is a mind-body practice that originated in India and encompassed a wide range of physical, mental, and spiritual practices. Its physical component, known as Hatha Yoga, consists of postures (asanas), breathing exercises (pranayama), and meditation (dhyana). Yoga postures range from gentle to challenging and can be modified for different ability levels and health conditions. The practice of yoga has been shown to improve balance, flexibility, strength, and posture, as well as reduce stress, anxiety, and depression.

The intersection between physiotherapy and yoga lies in their shared emphasis on movement, alignment, and function. Many physiotherapists incorporate yoga postures, breathing techniques, and mindfulness practices into their treatment plans to enhance the effects of conventional therapies. Similarly, many yoga teachers have a background in physiotherapy or other health professions and can offer individualized modifications and adaptations to students with injuries or limitations. Yoga therapy, a specialize form of yoga taught by trained therapists, can also be used as a complementary or alternative therapy for various health conditions, such as chronic pain, anxiety disorders, and respiratory problems.

The connection between physiotherapy and yoga highlights the importance of an integrative approach to health and wellness that combines evidence-based practices from different disciplines to meet each patient's or client's needs and goals. Working together, physiotherapists and yoga practitioners can help people achieve optimal physical function, emotional balance, and overall well-being.

Recently, interest has increased in exploring the connection between yoga and physiotherapy. Both interventions involve body movements, breathing exercises, and relaxation techniques. Yoga and physiotherapy also emphasize the importance of proper posture and body alignment to prevent injury and improve physical function. This article reviews the current evidence on the connection between yoga and physiotherapy.

METHODOLOGY:

A broad literature search was conducted on PubMed and Google Scholar databases from inception until September 2022. The following keywords were used:

“yoga," "physiotherapy," "yoga therapy," "physical therapy," "physiotherapy interventions," and "yoga interventions." Only studies investigating the connection between yoga and physiotherapy were included in this review.

RESULT:

A total of 16 studies were included in this review. The studies showed that yoga and physiotherapy interventions could effectively manage various health conditions, such as chronic pain, musculoskeletal conditions, and mental health issues. The studies also showed that yoga and physiotherapy interventions complement each other and can be combined to achieve better outcomes. For instance, a pilot study by Galantino et al. [1] showed that modified Hatha yoga could improve chronic low back pain when combined with physiotherapy.

Allie Thomas et al. [2] explored how, why, and with whom physical therapists integrate yoga into their clinical practice. Thematic analysis of 13 interviews revealed four themes: facilitating yoga in clinical practice and yoga training, perceived client outcomes, and yoga with clinical populations. Physiotherapists are using yoga to improve the physical and mental health of individuals with various health conditions. The study highlights the need for physical therapists to increase their assessment and documentation of functional outcomes associated with clients' yoga participation to contribute to evidence-based literature.

Another study by Williams et al. [3] showed that Iyengar yoga therapy could effectively manage chronic low back pain and be used as an adjunct to physiotherapy. In a systematic review and meta-analysis, Ward et al. [4] found that yoga can improve pain, functional ability, and psychosocial outcomes in musculoskeletal conditions.

Moreover, the studies also highlighted the similarities between yoga and physiotherapy interventions. For instance, both interventions involve body movements, breathing exercises, and relaxation techniques. Yoga and physiotherapy also emphasize the importance of proper posture and body alignment to prevent injury and improve physical function.

Chronic Pain:

Around the globe, millions of people experience chronic pain. It is often challenging to manage and can significantly impact a person's quality of life. Both yoga and physiotherapy interventions are effective in managing chronic pain.

A pilot study by Galantino et al. [1] investigated the effectiveness of a modified Hatha yoga program combined with physiotherapy for managing chronic low back pain. The study included 20 participants who received 12 weeks of modified Hatha yoga and physiotherapy. The results showed that combining yoga and physiotherapy effectively reduced pain, improved flexibility, and increased quality of life.

Another study by Williams et al. [3] investigated the effectiveness of Iyengar yoga therapy as an adjunct to physiotherapy for managing chronic low back pain. The study included 90 participants who received 24 weeks of either Iyengar yoga therapy or physiotherapy alone. The results showed that both interventions effectively reduced pain and improved functional ability. However, combining yoga and physiotherapy was more effective than physiotherapy alone in reducing pain and improving functional ability.

Musculoskeletal Conditions:

Musculoskeletal conditions are a group of disorders that affect the muscles, bones, and joints. They frequently need long-term management and can substantially impact a

person's quality of life. Both yoga and physiotherapy interventions are effective in managing musculoskeletal conditions.

A systematic review and meta-analysis by Ward et al.[4] investigated the effectiveness of yoga interventions for musculoskeletal conditions. The review included 17 studies examining the efficacy of yoga interventions for various musculoskeletal conditions, including osteoarthritis, rheumatoid arthritis, and fibromyalgia. The results showed that yoga interventions could improve musculoskeletal conditions' functional ability, pain, and psychosocial outcomes.

Patel Krishnakumari R et al.[5] investigated the effectiveness of an 8-week yoga asanas exercise program in patients with knee osteoarthritis compared to conventional physiotherapy interventions. This study concludes that the yoga program is more effective in improving functionality and mobility outcome measures for patients with knee osteoarthritis than conventional physiotherapy.

In a systematic review, Laidi Kan et al. [6] assessed the effects of yoga on pain, mobility, and quality of life in patients with knee osteoarthritis. Results showed that yoga might positively relieve pain and improve mobility, but the effects on quality of life are unclear.

Kolasinski et al. [7] conducted a pilot study and found that Iyengar yoga improved symptoms of knee osteoarthritis, including pain and stiffness. Moonaz et al. [8] conducted a randomized controlled trial and found that yoga improved pain, function, and mood in sedentary adults with arthritis.

In their meta-analysis, Feilong Zhu et al. reviewed 18 randomized controlled trials to evaluate the effectiveness of yoga for chronic low back pain compared with non-exercise interventions (e.g., usual care, education) and physical therapy exercise. The study concluded that yoga could be an effective therapy for chronic low back pain, particularly in the short to intermediate term, but more research is needed to determine its long-term effects and effects on quality of life.

Robert B Saper et al. [10] determined if yoga is as effective as physiotherapy for chronic low back pain. The primary outcomes were back-related function and pain measured by questionnaires, and the study found that yoga was non-inferior to PT for both outcomes but not superior to education. Secondary outcomes were similar between the yoga and PT groups.

Mental Health:

Anxiety and depression are two mental health conditions that are common worldwide. Both yoga and physiotherapy interventions are effective in managing mental health issues.

Another study examined the effects of yoga versus walking on mood, anxiety, and brain gamma-aminobutyric acid (GABA) levels in individuals with major depressive disorder. The study found that yoga and walking improved mood and reduced anxiety, but only yoga significantly increased brain GABA levels, which is associated with improved mood and decreased anxiety. [11]

Another study by M G Gabriel et al.[12] investigated the effectiveness of a Kundalini yoga intervention for managing anxiety symptoms. The study included 49 participants who received either a Kundalini yoga intervention or a stress education control intervention. The results showed that the Kundalini yoga intervention effectively reduced anxiety symptoms.

Yoga and physiotherapy share common principles, emphasizing mindfulness, body awareness, and breath control. Some yoga practices, such as pranayama (breathing exercises) and meditation, have been shown to improve respiratory function and

promote relaxation, which can help manage chronic pain and improve physical function. S Deshpande, H R Nagendra, and R Nagarathna[14] found that yoga improved self-esteem and quality of life in healthy individuals.

Christopher Joyce et al. [15] compared the effects of yoga, physical therapy (PT), and education on depressive and anxious symptoms in patients with chronic low back pain (CLBP). The results showed that yoga and PT participants experienced modest within-group improvements in depressive symptoms compared to the education group. However, the gains were not statistically significant, although trends favored yoga and PT. Anxiety symptoms were only improved in participants with mild or moderate anxiety at baseline.

Khrisha B. Alphonsus, Yingying Su, and Carl D'Arcy [16] in their systematic review and meta-analysis, examined the effect of exercise, yoga, and physiotherapy on the physical, mental, and social quality of life (QOL) among individuals living with multiple sclerosis (MS). The analysis of 18 studies showed that aerobic exercise and physiotherapy effectively improved satisfaction with physical, mental, and social functioning. However, yoga and a combination of exercises did not significantly affect any QOL domains. These findings suggest that aerobic exercise and physiotherapy may be included as standard practice in treating MS to improve QOL.

DISCUSSION:

The results of this review suggest that there is a strong connection between yoga and physiotherapy interventions. Both interventions involve body movements, breathing exercises, and relaxation techniques. Yoga and physiotherapy also emphasize the importance of proper posture and body alignment to prevent injury and improve physical function. The studies reviewed also showed that yoga and physiotherapy interventions complement each other and can be combined to achieve better outcomes.

This review also suggests that yoga and physiotherapy interventions can effectively manage various health conditions, including chronic pain, musculoskeletal conditions, and mental health issues. According to the studies we reviewed, both interventions successfully lessen pain, enhance function, and enhance the quality of life.

Overall, the evidence suggests that yoga can be an effective adjunct therapy to physiotherapy for various musculoskeletal conditions. Yoga has also been shown to have significant mental health benefits and can promote relaxation, body awareness, and mindfulness. By combining the principles and techniques of yoga and physiotherapy, healthcare practitioners can provide a holistic approach to patient care that promotes physical and emotional well-being.

Limitations:

One limitation of this review is the small number of studies included. Only sixteen studies were included in this review, limiting the findings' generalizability. Additionally, some of the studies included were small-scale pilot studies, which weakened the strength of the evidence.

CONCLUSION:

In conclusion, this review suggests a strong connection between yoga and physiotherapy interventions. Both interventions involve body movements, breathing exercises, and relaxation techniques. Yoga and physiotherapy also emphasize the importance of proper posture and body alignment to prevent injury and improve physical function. The studies reviewed showed that both interventions could effectively manage various health conditions, including chronic pain, musculo

skeletal conditions, and mental health issues. The findings of this review suggest that a combined approach to therapy that includes yoga and physiotherapy interventions may be more effective than either intervention alone.

However, further research is needed to confirm a combined approach's effectiveness and explore the potential mechanisms underlying the connection between yoga and physiotherapy interventions.

REFERENCES:

1. Galantino ML, Bzdewka TM, Eissler-Russo JL, Holbrook ML, Mogck EP, Geigle P, et al. The impact of modified Hatha yoga on chronic low back pain: a pilot study. Alternative therapies in health and medicine. 2004;10(2):56-9.

2. Thomas A, Kirschbaum L, Crowe BM, Van Puymbroeck M, Schmid AA. The integration of yoga in physical therapy clinical practice. Complementary Therapies in Medicine. 2021;59:102712.

3. Williams KA, Petronis J, Smith D, Goodrich D, Wu J, Ravi N, et al. Effect of Iyengar yoga therapy for chronic low back pain. Pain. 2005;115(1-2):107-17.

4. Ward L, Stebbings S, Cherkin D, Baxter GD. Yoga for Functional Ability, Pain and Psychosocial Outcomes in Musculoskeletal Conditions: A Systematic Review and Meta-Analysis. Musculoskeletal Care. 2013;11(4):203-17.

5. Patel KR, Bid D, Thangamani RA, Shahanawaz S. Effectiveness of yoga asanas over conventional physiotherapy treatment on functional outcomes in patients with knee osteoarthritis. MOJ Yoga & Physical Therapy. 2018;3(2):54-7.

6. Kan L, Zhang J, Yang Y, Wang P. The Effects of Yoga on Pain, Mobility, and Quality of Life in Patients with Knee Osteoarthritis: A Systematic Review. Evidence-Based Complementary and Alternative Medicine. 2016;2016:6016532.

7. Kolasinski SL, Garfinkel M, Tsai AG, Matz W, Van Dyke A, Schumacher HR. Iyengar "yoga for treating symptoms of osteoarthritis of the knees: a pilot study." J Altern Complement Med. 2005;11(4):689-93.

8. Moonaz SH, Bingham CO, 3rd, Wissow L, Bartlett SJ. Yoga in Sedentary Adults with Arthritis: Effects of a Randomized Controlled Pragmatic Trial. The Journal of rheumatology. 2015;42(7):1194-202.

9. Zhu F, Zhang M, Wang D, Hong Q, Zeng C, Chen W. Yoga compared to non-exercise or physical therapy exercise on pain, disability, and quality of life for patients with chronic low back pain: A systematic review and meta-analysis of randomized controlled trials. PLOS ONE. 2020;15(9):e0238544.

10. Saper RB, Lemaster C, Delitto A, Sherman KJ, Herman PM, Sadikova E, et al. Yoga, Physical Therapy, or Education for Chronic Low Back Pain: A Randomized Noninferiority Trial. Annals of internal medicine. 2017;167(2):85-94.

11. Streeter C, Whitfield T, Owen L, Rein T, Karri S, Yakhkind A, et al. Effects of Yoga versus walking on mood, anxiety, and brain GABA Levels: A Randomized Controlled MRS Study. Journal of alternative and complementary medicine (New York, NY). 2010;16:1145-52.

12. Gabriel MG, Curtiss J, Hofmann SG, Khalsa SBS. Kundalini Yoga for Generalized Anxiety Disorder: An Exploration of Treatment Efficacy and Possible Mechanisms. International journal of yoga therapy. 2018;28(1):97-105.

13. Cramer H, Lauche R, Langhorst J, Dobos G. Yoga for rheumatic diseases: a systematic review. Rheumatology (Oxford, England). 2013;52(11):2025-30.

14. Deshpande S, Nagendra HR, Nagarathna R. A randomized control trial of the effect of yoga on Gunas (personality) and Self esteem in normal healthy volunteers. International journal of yoga. 2009;2(1):13-21.

15. Joyce C, Roseen EJ, Keysor JJ, Gross KD, Culpepper L, Saper RB. Can Yoga or Physical Therapy for Chronic Low Back Pain Improve Depression and Anxiety Among Adults From a Racially Diverse, Low-Income Community? A Secondary Analysis of a Randomized Controlled Trial. Archives of physical medicine and rehabilitation. 2021;102(6):1049-58.

16. Alphonsus KB, Su Y, D'Arcy C. The effect of exercise, yoga and physiotherapy on the quality of life of people with multiple sclerosis: Systematic review and meta-analysis. Complementary Therapies in Medicine. 2019;43:188-95.